

UNITED STATES DEPARTMENT OF AGRICULTURE

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NATIONAL ORGANIC STANDARDS BOARD

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PUBLIC COMMENT WEBINAR

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TUESDAY  
APRIL 19, 2016

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The meeting was conducted by webinar at 1:00 p.m., Tracy Favre, Chair, presiding.

NOSB Members:

- TRACY FAVRE, Chair
- HAROLD AUSTIN
- CARMELA BECK
- HARRIET BEHAR
- JESSE BUIE
- TOM CHAPMAN, Vice Chair
- LISA DE LIMA, Secretary
- EMILY OAKLEY
- SCOTT RICE
- JEAN RICHARDSON
- A-DAE ROMERO-BRIONES
- DAN SEITZ
- ZEA SONNABEND
- ASHLEY SWAFFER

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USDA STAFF:

MICHELLE ARSENAULT, Advisory Committee  
Specialist  
LISA BRINES, National List Manager  
PAUL LEWIS, Standards Division Director  
MILES McEVOY, Deputy Administrator  
DEVON PATTILLO, Materials Specialist  
BETSY RAKOLA, USDA Organic Policy Advisor  
EMILY BROWN ROSEN, Agricultural Marketing  
Specialist  
JENNY TUCKER, Associate Deputy Administrator  
JESSICA WALDEN, Materials Specialist  
SONYA WILSON, Communications Specialist

WEBINAR ATTENDEES:

FARLEY BARICUATRO, Seaweed sourcing manager  
COLEHOUR BONDERA, Citizen  
MARIE BURCHAM, The Cornucopia Institute  
ROGER CLEMENS, USC  
DEBRA CLEMENT, Citizen  
KELLY DAMEWOOD, California Certified Organic  
Farmers (CCOF)  
PAUL DeGRANDPRE, Organic Handler  
NICOLE DEHNE, Vermont Organic Farmers (ACA)  
PATRICIA Di GASBARRO, Manufacturer  
KATHERINE DiMATTEO, Wolf, DiMatteo + Associates  
STEVE ETKA, National Organic Coalition  
BARRY FLAMM, The Cornucopia Institute  
GRACE GERSHUNY, GAIA Services  
ERIK GUNDERSEN, MOSA  
ZEN HONEYCUTT, Moms Across America  
RYAN HOWARD, Chicago Vegan Foods  
AMBER KING, Citizen  
ESTEBAN MACIAS, Organic growing technical  
advisor  
WILLIAM MATAKAS JR., FMC Health and Nutrition  
Asia Pacific  
WEST MATHISON, Grower  
MADISON MONTY, Northeast Organic Farming  
Association of Vermont (NOFA-VT)  
MEGAN PARKER, Citizen

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PETER PITTS, Center for Medicine in the Public  
Interest  
AMBER POOL, California Certified Organic Farmers  
(CCOF)  
SHAKEEL REHMAN, Fairlife LLC  
CHRISTINE RICH, Citizen  
MARGARET SCOLES, International Organic  
Inspectors Association  
TYLER SMITH, Consumer Reports Food Safety and  
Sustainability Center  
KELLY TAVERAS, OTA  
JOANNE TOBACMAN, Department of Medicine,  
University of Illinois at Chicago  
KRISTEN WALKER, Citizen  
ANGELA WARTES-KAHL, Citizen  
MYRA WEINER, TOXpertise LLC

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1 P-R-O-C-E-E-D-I-N-G-S

2 1:04 a.m.

3 MR. LEWIS: Good afternoon and welcome  
4 NOSB members and the public. We appreciate NOSB  
5 members participating in this call and for all your  
6 efforts serving on the Board. We are particularly  
7 excited about the opportunity for the Board to  
8 conduct this meeting via teleconference, providing  
9 the opportunity to greater public access to NOSB  
10 meetings. This meeting, like other meetings of  
11 the NOSB, operate under the auspices of the Federal  
12 Advisory Committee Act. We are looking forward to  
13 getting comments from the public to assist the  
14 Board in preparing their recommendations to the  
15 USDA.

16 I want to thank especially my National  
17 Organic Program colleagues for their help behind  
18 the scenes to bring us this teleconference today.  
19 Also to thank our Chair, Tracy Favre, for all her  
20 efforts providing leadership and guidance for the  
21 Board. Thank you and looking forward to a good  
22 meeting. I'd like to now invite our Chair, Tracy

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1 Favre, to make some remarks and to lead us today.

2 CHAIR FAVRE: Hi. Good afternoon  
3 everybody. Can everybody hear me okay? Board  
4 members, I know you can respond, everybody else is  
5 muted.

6 MS. TUCKER: Yes, we can hear you.

7 CHAIR FAVRE: Great, thanks. Really  
8 appreciate everybody coming today to participate  
9 in this webinar. I feel very, very strongly that  
10 using technology to expand our opportunity for  
11 comment from the public is a wave of the future and  
12 I'm delighted to see that we have a very active  
13 sign-up list for commenters today. In fact, I will  
14 just note that we have a very packed agenda today,  
15 so I'm going to be very strict on the time limits  
16 so that everybody gets a chance to have their  
17 comments in the time period that we have allowed.

18 So, just everybody be aware of that,  
19 when you hear the timer, you're not going to get  
20 much latitude. I appreciate your cooperation with  
21 that. And in the interest of getting back on  
22 schedule time wise, I'd like to go ahead and turn

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1 this over to the conference organizers to do a full  
2 list of the Board members present and then we'll  
3 get started with the public comments after that.  
4 Thank you very much.

5 MS. TUCKER: Great. Thank you so much,  
6 Tracy. We're going to take care of a couple of  
7 housekeeping items here. First, we're going to  
8 read the names of Board members present into the  
9 record. This conference call is being  
10 transcribed, so the names of participating Board  
11 members will be captured in the transcript.  
12 Michelle Arsenault is going to do that. And then  
13 also, Michelle is going to demonstrate what the end  
14 of public comment warning sounds like so if you're  
15 giving public comment, you're going to know what  
16 the signal is that marks your being done. So,  
17 Michelle, please go ahead and read in Board members  
18 for the record.

19 MMA: Sure. Thank you, Jenny. Harold  
20 Austin, Carmela Beck, Harriet Behar, Jesse Buie,  
21 Tom Chapman, Lisa de Lima, Tracy Favre, Emily  
22 Oakley, Scott Rice, Jean Richardson, A-dae

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1 Romero-Briones, Zea Sonnabend, Dan Seitz, and  
2 Ashley Swaffer. All right. And here is what,  
3 when your three minutes is up, we're going to sound  
4 the timer here and I'm going to set it off so you  
5 guys can hear what it sounds like in just a second.  
6 And so, we appreciate whether you're mid-sentence,  
7 maybe you can finish your sentence, but we'd  
8 appreciate it if you can -- I can't do seconds here.

9 I'm going to start the timer here.  
10 We'd appreciate it if you would end the sentence  
11 you're speaking about and end at that point your  
12 public comment. And then Tracy will see if the  
13 Board members have any questions for you. We do  
14 have a completely full agenda and I think we're  
15 going to run a little late, only because we're  
16 starting a little late. So, hopefully everyone  
17 can stay with us through the whole thing.

18 MS. TUCKER: Okay. Well, while we're  
19 waiting for the timer to ring, we've got about 25  
20 seconds, as a reminder, if you run into technical  
21 problems during the presentation, you can go to  
22 Readytalk.com and they can help you with technical

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1 troubleshooting. If you activate the chat button  
2 on the side of your screen, you will chat, all the  
3 presenters will see you, please don't use that  
4 function unless we're either trying to get a hold  
5 of you, because you're coming up -- there we go,  
6 so that sounded like a doorbell. Can everyone hear  
7 that?

8 CHAIR FAVRE: Yes, we can hear it.

9 MS. TUCKER: Once you give your public  
10 comment, that's what you'll hear to tell you to  
11 stop. Again, in the meantime, if you need to send  
12 us a message, you can use the chat button on the  
13 left of your screen. If you're having technical  
14 difficulty, please go to Readytalk.com. So, I  
15 think we are ready to get started.

16 CHAIR FAVRE: Okay. Thanks, Jenny.  
17 Thanks, Michelle. I appreciate all your hard work  
18 on this. Just as a reminder, the comment period  
19 is restricted to three minutes. We have allocated  
20 about two minutes for questions and answers for the  
21 Board. And we need to try to stay close to that  
22 with whatever flexibility we can. And as a

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1 reminder to Board members, the way that you request  
2 a chance to ask a question is in the chat box to,  
3 not raise your hand, to include a question mark that  
4 I will see and then direct you to proceed with your  
5 question. So, our first commenter up is going to  
6 be Nicole Dehne and we're going to have Roger  
7 Clemens on deck after that. So, take it away,  
8 Nicole.

9 MS. DEHNE: Okay. Can you hear me?

10 CHAIR FAVRE: Yes, we can.

11 MS. DEHNE: Oh, excellent. Okay. So,  
12 my name is Nicole Dehne. I am the Certification  
13 Director for NOFA Vermont's Certification Program,  
14 Vermont Organic Farmers. We currently certify  
15 over 600 farmers and processors. And I want to  
16 thank the Board for the opportunity to speak today  
17 and I also wanted to acknowledge how much I  
18 appreciate being able to address the Board without  
19 having to travel to D.C. this time, so thanks very  
20 much.

21 I'm going to comment on four items,  
22 hydroponics, biodegradable bio-based mulch,

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1 lidocaine and procaine, and parasiticides. For  
2 hydroponics, certification of hydroponic systems  
3 we feel fail to recognize the essential functions  
4 of complex soil ecosystems and the role that  
5 organic farmers play as stewards of soil ecology.  
6 So, hydroponic systems reduce crop production to  
7 basically a feeding system of a nutrient solution  
8 and an inert growing medium. And furthermore,  
9 there's lots of inconsistencies among certifiers  
10 in regards to how they certify hydroponic systems  
11 and this diminishes the value of the organic label.  
12 In February this year, Senator Leahy issued a  
13 letter to Secretary Tom Vilsack strongly advising  
14 the NOP to issue a moratorium on the certification  
15 of new hydroponic operations and we strongly  
16 support the Senator's request and we urge the NOSB  
17 to reconfirm the Board's commitment to soil-based  
18 production.

19 So, under biodegradable bio-based  
20 mulch, we often hear from organic growers about  
21 their desire to use this mulch. We even hear from  
22 some growers that say that the reason they haven't

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1 decided to certify is because they are not allowed  
2 to use this material. The current NOP Policy Memo  
3 15-1 currently requires that biodegradable mulches  
4 be 100 percent bio-based, despite the fact that the  
5 NOP Rule doesn't require that specifically. The  
6 problem with this interpretation is that there are  
7 no mulches available at this time that meet that  
8 100 percent bio-based requirement. So we  
9 encourage the Crops Subcommittee to review the  
10 policy as requested by the NOP and find a reasonable  
11 solution to this issue that encourages production  
12 of biodegradable mulch that has a lot of bio-based  
13 content, while taking into consideration what is  
14 feasible and available in the marketplace.

15 For lidocaine and procaine, we strongly  
16 believe that the NOSB's proposal to reduce the  
17 withholding time for these anesthetics will  
18 greatly improve animal care on organic farms. The  
19 current withholding period discourages the use of  
20 these important tools. The NOSB recommendation to  
21 change the required withholding times to double the  
22 current recommendations is reasonable, consistent

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1 with withholding recommendations for other  
2 livestock materials, and we believe it will improve  
3 animal welfare on organic farms.

4           And then as far as the NOSB proposal for  
5 parasiticides, on dairy farms in Vermont,  
6 parasiticides are rarely, if ever, used on  
7 lactating animals because generally these adult  
8 animals can tolerate parasites better than young  
9 stock. There are instances, however, like for one  
10 example, when a herd might have lungworm, where  
11 emergency treatment of lactating animals is  
12 needed. In situations like these, it's extremely  
13 important that producers are not unduly burdened  
14 with long milk withholding, which could be  
15 expensive and unnecessary, and most importantly,  
16 could discourage the needed use of these materials.  
17 Because of this, we support the NOSB recommendation  
18 that includes lessening the withholding times for  
19 fenbendazole and moxidectin and creates an  
20 allowance for the use of parasiticides on fiber  
21 bearing animals. And that's it.

22           CHAIR FAVRE: Thank you very much. Does

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1 anybody have any questions for Nicole? Okay.  
2 Thank you very much, Nicole.

3 MS. DEHNE: Okay. Thank you so much.

4 CHAIR FAVRE: Next up is Roger Clemens.  
5 And just one correction, I did misspeak, it is four  
6 minutes for the webinar, sorry, it's three minutes  
7 for public comment in person. So you get a little  
8 bit of bonus for putting up with the hassle of the  
9 technology. And, Mr. Clemens, just to bring your  
10 attention to it, does have a presentation that  
11 he'll be sharing with us via the webinar if you are  
12 on the computer. And next up after Roger on deck  
13 is Grace Gershuny. Mr. Clemens, please proceed.

14 MS. TUCKER: Yes, hold on. I need to  
15 unmute. I need to find him so I can unmute him.

16 CHAIR FAVRE: Okay. If you're  
17 speaking, Mr. Clemens, we can't hear you yet, but  
18 we will soon.

19 MS. TUCKER: Yes, Roger, we'll tell you  
20 when you can go.

21 CHAIR FAVRE: And we appreciate  
22 everybody's patience on this. I have a picture in

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1 my mind of the NOP staff manning this, running  
2 around like crazy people unmuting and muting, so  
3 just have some patience with everybody. Just like  
4 an in-person meeting, we can't always expect things  
5 to go off without a hitch, but we appreciate your  
6 patience and your humor as we work through it.

7 DR. CLEMENS: Are we connected?

8 CHAIR FAVRE: Super.

9 DR. CLEMENS: We are?

10 CHAIR FAVRE: Please proceed. Yes, we  
11 are.

12 DR. CLEMENS: Thank you very much.  
13 Hello and good afternoon. This is Roger Clemens.  
14 I'm a professor at the USC School of Pharmacy and  
15 the International Center for Regulatory Science.  
16 I bring to the school 40 years of experience in the  
17 global nutrition, food safety, toxicology, and  
18 food regulation environment. Thank you for this  
19 great opportunity to present these comments in  
20 support of carrageenan remaining on the national  
21 list. Next slide please. There are two critical  
22 factors to consider when assessing the safety of

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1 a food additive.

2 The first is its history of exposure or  
3 history of use. The second is an understanding of  
4 animal toxicology, metabolic fate, and human  
5 studies. These are imbedded in the statutes of the  
6 United States in the Code of Federal Regulations.  
7 Such assessments allow us to determine acceptable  
8 daily intake. Without these kinds of data, we  
9 cannot determine the safe use of any food  
10 ingredient, including carrageenan. Next slide  
11 please.

12 In assessing the safety of carrageenan  
13 in human food, there are two key publications that  
14 validate its safe use. They are listed on this  
15 slide, indicated by 1 and 2. These publications  
16 noted that food grade carrageenan is utilized as  
17 a food additive and ingested by humans engaged in  
18 normal dietary patterns. There is no demonstrable  
19 evidence that this class of component pose any  
20 health risk ingested as a food additive. The JECFA  
21 on food additives review of 77 studies, including  
22 those that show potential inflammatory effects,

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1 the committee concluded there were there no  
2 toxicological concerns. Next slide.

3 In the United States, the Select  
4 Committee on GRAS Substances under the FDA  
5 concluded there was no evidence that undegraded  
6 carrageenan demonstrates a hazard to the public  
7 when it is used at current levels. The same report  
8 also noted that adverse events such as gut  
9 inflammation are species specific phenomena.  
10 Evidence indicating dietary carrageenan can induce  
11 ulceration of the cecum and proximal colon of the  
12 guinea pig does not appear to occur in the rat, the  
13 mouse, hamster, pig, squirrel monkey, or man.  
14 Next slide.

15 Carrageenan represents several unique  
16 and beneficial physical properties in its use in  
17 biomaterials and food supply. Carrageenan is an  
18 indispensable ingredient for organic foods, with  
19 organic formulations. It is cost-effective and  
20 enables functionality of that food that is not  
21 provided any other stabilizer and ensures products  
22 that are suitable and available for a wider range

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1 of people. Next slide. In conclusion, the  
2 preponderance of scientific evidence, clinical  
3 evidence, and history of safe use indicate that  
4 carrageenan is safe for human consumption at all  
5 ages, including infants. Carrageenan is a unique  
6 ingredient in that it provides utility within a  
7 variety of food products. Lastly, the debate over  
8 carrageenan is used to highlight the necessity of  
9 critical rigor in the way laboratory research is  
10 conducted. Thank you very much for this  
11 opportunity. I'm right on time.

12 CHAIR FAVRE: Well, thank you. If we  
13 had prizes that I could send through the phone, I'd  
14 give you one. Thank you very much.

15 DR. CLEMENS: I appreciate your sense of  
16 humor.

17 CHAIR FAVRE: Thank you. We have a  
18 question from Tom Chapman for Mr. Clemens. And is  
19 it Professor, is it Dr. Clemens or Mr. Clemens?

20 DR. CLEMENS: It's Dr. Clemens. Mr.  
21 Clemens on the birth certificate, Dr. Clemens on  
22 the academic environment.

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1 CHAIR FAVRE: Great. Thank you. Thank  
2 you, Dr. Clemens.

3 DR. CLEMENS: You're welcome.

4 CHAIR FAVRE: We've got questions from  
5 Tom Chapman and then followed by Zea Sonnabend.

6 DR. CLEMENS: Sure.

7 CHAIR FAVRE: Tom, go ahead.

8 MEMBER CHAPMAN: Dr. Clemens, you've  
9 been quoted in the Daily Trojan, a USC publication,  
10 saying that, the only thing that organic food has  
11 added so far is the cost to your pocketbook.  
12 That's a very unsophisticated, narrowminded  
13 statement about this community that the NOSB  
14 represents. The new data on the organic label, how  
15 are we to know the information you just presented  
16 is not similarly selective and narrowminded?

17 DR. CLEMENS: Is that a statement or a  
18 question?

19 MEMBER CHAPMAN: That's a question.

20 DR. CLEMENS: Well, organic foods, as  
21 I've discussed, provides an opportunity for a lot  
22 of people to have other kinds of foods to their

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1 liking. I've done extensive research in the area  
2 of nutritional value and food quality, and if you  
3 look at the spectrum of data, whether it be celery,  
4 lettuce, radishes, wine, it makes no difference,  
5 that there's a spectrum of inconsistency in terms  
6 of nutritional benefit in these kind of products.  
7 My international experience in the global market  
8 in terms of global nutrition that feed the  
9 malnourished people of the world, organic foods  
10 don't really have a significant role. My goal  
11 internationally is to provide excellent safe food  
12 that is affordable and accessible.

13 CHAIR FAVRE: Okay.

14 MEMBER CHAPMAN: Thank you.

15 CHAIR FAVRE: Thank you, Dr. Clemens.  
16 Zea, I believe you had a question next?

17 MEMBER SONNABEND: Yes. Can you hear  
18 me?

19 DR. CLEMENS: Yes, I can. Thank you.

20 MEMBER SONNABEND: This is Zea  
21 Sonnabend. My question is concerning, I'm sure  
22 you've read at least some of the literature and

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1 perhaps also some of the other people's comments  
2 that we've received. So both the literature and  
3 the comments that we've received, there's a lot of  
4 critique of different scientific teams' research  
5 methodology. And so I'm wondering on your  
6 perspective of the validity of in vivo versus in  
7 vitro studies and studies of carrageenan that  
8 involve feeding in the drinking water versus  
9 binding to protein in feed. Do you think that some  
10 of those research methods are less valid than  
11 others?

12 DR. CLEMENS: I think you have to look  
13 at the composite and preponderance of evidence.  
14 Clearly, carrageenan is not administered through  
15 water, number one. Number two, the way it's  
16 metabolized, as you know, carrageenan is not  
17 absorbed. But importantly to all kinds of  
18 research, it's imperative that we understand the  
19 starting material. In many cases, the starting  
20 material is not fully characterized. In addition,  
21 some of the in vitro work, even the cell culture  
22 work, was compromised. And so, when you have

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1       compromised data, it obviously compromises the  
2       concluding remarks.     Therefore, if you don't  
3       include those kinds of data or those types of  
4       research in the proper perspective, you get a  
5       different conclusion.

6                CHAIR FAVRE: Okay.     Thank you, Dr.  
7       Clemens.     We appreciate your comments and your  
8       presentation.     Any other questions for Dr.  
9       Clemens?     Okay.     Next up is Grace Gershuny and on  
10      deck is Patricia Di Gasbarro.     And I apologize  
11     ahead of time for mispronunciations, we've got a  
12     couple of complicated ones for me.     And just a note  
13     to folks on the line, Grace also has a presentation,  
14     which will be appearing on the webinar screen.  
15     Thank you.

16               MS. GERSHUNY: Can you hear me?

17               CHAIR FAVRE: Only very faintly.     Can  
18     you speak up a little bit?

19               MS. GERSHUNY: Yes.     Is this better?  
20     I'm on my headset.

21               CHAIR FAVRE: Yes, that's better.

22               MS. GERSHUNY: Okay.     So I'll try not to

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1 swallow the microphone. Thank you for listening  
2 to me again. I was here in Vermont in October and  
3 have now published the book that I gave out a  
4 reader's copy of. It's a much better condition  
5 than the very rough draft that you all on the NOSB  
6 saw. And so, I'm announcing the availability of  
7 the book and I want to point out the quote that's  
8 on the slide. This book is essential reading for  
9 anyone seeking to understand the events and ideas  
10 pivotal to the growth of the organic sector in the  
11 use, from Joe Smillie who wrote the forward to the  
12 book. And I hope that includes everybody here.  
13 So, I will make some copies available when I come  
14 down to Washington and bring some to the NOSB staff.  
15 And I will also be putting out an eBook very soon  
16 and will make those available to anybody on the  
17 NOSB. So, I wanted to just mention my affiliation.  
18 I am currently an instructor for Green Mountain  
19 College, masters of science in agricultural  
20 systems. I teach and practice about agriculture.  
21 CHAIR FAVRE: Grace, we're losing you  
22 again, if you could speak up.

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1 MS. GERSHUNY: Am I still on?

2 CHAIR FAVRE: Yes, you're still on, but  
3 we can barely hear you.

4 MS. GERSHUNY: Okay. I'll try to speak  
5 up again. So, I will just make a couple of comments  
6 in support of the comments submitted by OTA, which  
7 includes especially the comments about nutrients,  
8 vitamins, and minerals, ancillary substances, and  
9 terminology of excluded methods. The other  
10 comments that I have have to do with biodegradable  
11 mulch, which Nicole Dehne spoke to very well. I  
12 have heard of at least one Vermont farmer who has  
13 declined to be certified so that he is able to use  
14 biodegradable use, which is ecologically much  
15 superior to the plastic stuff that you have to take  
16 off at the end of season and landfill.

17 And on the hydroponic/agroponic thing,  
18 I do respectfully disagree with my colleagues in  
19 Vermont, many of them. I do support agroponics to  
20 be considered organic and I suggest that it would  
21 be -- the problem could be solved by requiring that  
22 organic products of hydroponic or agroponic be

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1 labeled as such so that consumers will know if they  
2 care about whether it's grown in water or soil that  
3 it is not grown in soil. So, those are my comments  
4 and I hope you will all check out the book. I  
5 appreciate the opportunity to speak to you all.

6 CHAIR FAVRE: Okay. Good timing. Does  
7 anybody have any questions for Grace? Okay.  
8 Thank you, Grace. Next up is Patricia Di Gasbarro,  
9 followed by Paul DeGrandpre. Thank you.  
10 Patricia?

11 MS. TUCKER: Hold on, we're trying to  
12 find Patricia on the phone list. What's the area  
13 code? 416? I don't have a 4, I go right from 3  
14 to 5, and she is not listed -- Patricia, are you  
15 on the line? Patricia, if you are there, but can't  
16 speak because you're muted, could you please go  
17 ahead and chat us to let us know you're there? We  
18 do not see you listed on the phone list and we can't  
19 find your phone number in the roster. Is she up  
20 here?

21 CHAIR FAVRE: Okay.

22 MS. TUCKER: We don't appear to have her.

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1 CHAIR FAVRE: Okay. Patricia, if we  
2 find you later, we'll try to work you in at the end.  
3 I'm sorry we missed this opportunity. Hopefully  
4 Paul DeGrandpre is on. Paul, if you're available,  
5 let's get you unmuted. And then next up after that  
6 is Joanne Tobacman.

7 MS. TUCKER: Hold on one second. I  
8 can't interact with him on the web, I can only  
9 interact with him by phone. What's his -- 541?  
10 I've got three 541s -- 2837? I don't have a 2837.  
11 Okay, I'm going to go ahead and unmute people from  
12 the 541 area code in the hope that it is --

13 MR. DeGRANDPRE: Hello?

14 MS. TUCKER: Can you hear us?

15 MR. DeGRANDPRE: We can hear you, can you  
16 hear us?

17 MS. TUCKER: Okay, go for it.

18 CHAIR FAVRE: Is this Paul?

19 MR. DeGRANDPRE: This is Paul.

20 CHAIR FAVRE: Great. Go ahead, Paul.  
21 Thank you.

22 MR. DeGRANDPRE: All right. Very good.

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1 Well, my name is Paul DeGrandpre. I'm with  
2 PowderPure Company out here in lovely The Dalles,  
3 Oregon. I am joined by one of our co-owners and  
4 our chief science officer, Dr. Kerry Ringer.  
5 PowderPure is a certified organic fruit and  
6 vegetable dehydrator. We manufacture organic and  
7 conventional dry fruit and vegetable powders. We  
8 hope you have an opportunity to read the letter that  
9 we submitted. We tried to succinctly summarize  
10 our position as far as the silicon dioxide sunset  
11 issue goes.

12 Silicon dioxide is very important to us  
13 as greater than 95 percent of our organic and  
14 conventional fruit and vegetable powders require  
15 its anti-caking properties to maintain their  
16 condition in a flowable powdered food product.  
17 Silicon at less than the two percent allows us to  
18 produce a nearly pure organic fruit and vegetable  
19 powder product. The removal of silicon dioxide  
20 from the national list at 205.605 would virtually  
21 prevent us from supplying organic fruit and  
22 vegetable powders. Obviously, we're severely

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1 affected, we don't know how many other companies  
2 would be similarly affected.

3 Our process allows us to produce these  
4 fruit and vegetable no carrier pure products. If  
5 silicon dioxide is removed, we'd have to dilute our  
6 pure fruit and vegetable products with a carrier  
7 at much higher amounts than two percent. We would  
8 need the 15 to 50 percent carrier as mentioned in  
9 our written comment. These are the levels that the  
10 rice hull people, the NuFlo people recommend for  
11 our products. Addition of a carrier or rice hulls,  
12 in this case, vastly changes the final powder's  
13 appearance, flavor, nutrition, solubility, and  
14 shelf stability.

15 The silicon dioxide at less than two  
16 percent dramatically increases the shelf stability  
17 of the fruit and vegetable powders behind what the  
18 rice hulls can accomplish at 15 percent. We're  
19 attempting to promote organics and healthy eating  
20 habits of increasing fruit and vegetable  
21 consumption and to promote fruit and vegetable  
22 preservation and prevention of post-harvest losses

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1 through the use of our drying technology.

2 Our comment letter, there's a link in  
3 there to a 20 minute video of two of our highest  
4 volume products, the beet and carrot powder  
5 products, at three different storage temperatures  
6 comparing two percent AEROSIL, which is the brand  
7 of silicon dioxide we use, and NuFlo at two percent.  
8 And as you can see in the video, the NuFlo does not  
9 perform as well as the AEROSIL. One other concern  
10 we have is regarding the nomenclature of silicon  
11 dioxide.

12 Obviously, the organic community is  
13 very concerned with chemical use in the form of  
14 pesticides and fertilizers, particularly on  
15 organic products. If I talk about three different  
16 compounds, silicon dioxide, sodium chloride, and  
17 dihydrogen monoxide, it kind of creates a certain  
18 feeling in people's minds. If I call them sand,  
19 salt, and water, it kind of creates a different  
20 perspective in people's minds. And our position  
21 here at PowderPure is that we should leave sand on  
22 205.605 without any further restriction in use.

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1 MS. TUCKER: So that was the timer. I'm  
2 sorry, I don't think I hit the mute button quick  
3 enough for you guys to here that.

4 CHAIR FAVRE: Okay. Thank you, Paul.  
5 Does anybody have any questions for Paul? Okay.  
6 Seeing none, thank you, Paul. We appreciate your  
7 comments.

8 MR. DeGRANDPRE: Thank you.

9 CHAIR FAVRE: Next up is Joanne  
10 Tobacman, but it looks as though we are hunting for  
11 a phone number for her. Dr. Tobacman, if you're  
12 on the line, can you please chat in the window and  
13 let us know? We can't see a phone number for you.

14 MS. TUCKER: Joanne, we need your phone  
15 number to know who to unmute.

16 CHAIR FAVRE: Okay, we see you on here,  
17 but, Joanne, we need to see your phone number. The  
18 rest of the group can't see it, if you're concerned  
19 about that, but we can't unmute you for comments  
20 unless we have a phone number to figure out which  
21 one's you.

22 MS. TUCKER: Okay. Thank you. Just a

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1 second, I'm going to find you. There you are.  
2 Okay, Joanne, you should now be unmuted.

3 DR. TOBACMAN: Can you hear me?

4 CHAIR FAVRE: Yes, we can. But before  
5 you get started, Joanne, I want to say that Madison  
6 Monty is on deck after Dr. Tobacman. Go ahead, Dr.  
7 Tobacman, thank you for being here.

8 DR. TOBACMAN: Thank you for this  
9 opportunity to comment. My collaborators and I  
10 are among many investigators who have shown the  
11 effects of carrageenan in cell culture and animal  
12 studies. PubMed from the National Library of  
13 Medicine list over 9,900 studies about carrageenan  
14 in recent decades. Now, in the majority of these  
15 studies, carrageenan has been used to cause  
16 inflammation since exposure to small amounts of  
17 carrageenan predictably causes inflammation in  
18 experiments in culture cells and in animals.  
19 Carrageenan induced inflammation has very often  
20 been used to identify mediators of inflammation and  
21 the effectiveness of anti-inflammatory  
22 medications.

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1                   However, coincident with the ongoing  
2 use of carrageenan in the laboratory, carrageenan  
3 has been increasingly incorporated into food  
4 products, which are regularly consumed as part of  
5 a typical diet. And the use of carrageenan in  
6 these food products, and in organic food products  
7 in particular due to the increased safety  
8 associated with organic foods, is an ongoing  
9 serious concern. Inflammation contributes  
10 significantly to human diseases, including cancer,  
11 diabetes, arthritis, arteriosclerosis, and  
12 colitis. And we urge the NOSB to not certify  
13 products that contain carrageenan.

14                   Carrageenan has been shown to activate  
15 inflammatory cascades through innate immune  
16 pathways and these pathways were first  
17 demonstrated in human immune cells involving the  
18 toll-like receptor 4. There are also reactive oxygen  
19 species initiated inflammatory pathways. But  
20 toll-like receptor 4 is part of the innate immune  
21 response in humans, it's not particular to any  
22 specific population of humans, but to all humans.

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1 This is an innate immune receptor. And we believe  
2 that the impact of carrageenan is due to its  
3 fundamental chemical structure.

4 There's been a lot of talk over decades  
5 about distinguishing the low molecular weight  
6 carrageenan, often called poligeenan, versus the  
7 undegraded or higher molecular weight. However,  
8 the more accurate and informative way to think  
9 about carrageenan is to regard it as a  
10 disaccharide. It is a sulfated glycosaminoglycan  
11 similar to heparin or chondroitin sulfate and these  
12 have a fundamental disaccharide structure. In the  
13 case of carrageenan, these are galactose residues  
14 and they are linked in an alpha 1, 3 bond. And this  
15 is an immunogenic bond to humans.

16 So, many of the studies that have been  
17 done for decades in the laboratory animal models  
18 may not be entirely relevant to human disease,  
19 because humans and old world apes do not make this  
20 bond. And this is an immunogenic epitope to humans  
21 and the old world apes, so it stimulates these  
22 immune responses. And this fundamental

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1 disaccharide unit is a part of carrageenan or the  
2 low molecular weight tail of undegraded  
3 carrageenan or undegraded carrageenan. It's like  
4 a string of pearls and the disaccharide unit is the  
5 pearl, and it can be of varying length.

6 And industry, I think, over decades has  
7 recognized that poligeenan does cause inflammation  
8 and ulcerations. And this is probably because of  
9 the stimulation of reactive oxygen species in the  
10 animals. But at this point in time, I think we need  
11 to recognize instead that this is a fundamental  
12 disaccharide unit and this is the source of harmful  
13 effects attributable to carrageenan. Thank you.

14 CHAIR FAVRE: Thank you, Dr. Tobacman.  
15 I believe Tom Chapman had a question for you.

16 DR. TOBACMAN: Yes?

17 CHAIR FAVRE: Tom, go ahead.

18 MEMBER CHAPMAN: Hi, Dr. Tobacman. So,  
19 in both your written comments and here you've  
20 spoken about the innate universal and fundamental  
21 effects of carrageenan on humans.

22 DR. TOBACMAN: Yes.

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1                   MEMBER CHAPMAN: This is a particularly  
2 wide disagreement. Is it based on your study of  
3 cells from human origin? Is there an  
4 epidemiological study to support this statement?

5                   DR. TOBACMAN: I'm sorry, I --

6                   MEMBER CHAPMAN: Yes?

7                   DR. TOBACMAN: I have a little trouble  
8 hearing everything that you said, I'm sorry.  
9 You'll have to repeat --

10                  MEMBER CHAPMAN: I'll repeat it.

11                  DR. TOBACMAN: Yes, please.

12                  MEMBER CHAPMAN: Okay. Can you hear me  
13 now?

14                  DR. TOBACMAN: Better, thank you.

15                  MEMBER CHAPMAN: Okay. So in both your  
16 written and here, you spoke to the innate universal  
17 and fundamental effects of carrageenan on humans.  
18 And my question was, this seems to be a considerably  
19 wide statement, is this based on your study of cells  
20 from human origin? Was there an epidemiological  
21 study to support this statement? I had noticed  
22 that there wasn't a citation in the written

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1        comments about this section. I'm curious if you  
2        had a citation for this statement.

3                    DR. TOBACMAN: There's the presence of  
4        the anti-GALE antibody, which is highly prevalent  
5        in humans. And humans reject organs from most  
6        mammals, like pig transplants don't work. And  
7        this seems to be related to this epitope being  
8        present in the tissues of these animals. So, I  
9        don't -- in our studies with cells, we've looked  
10       at different enzymes that can break some of these  
11       disaccharide bonds and also the sulfatases and we  
12       do find a variation in the extent of inflammation  
13       that arises following these enzymatic treatments.

14                   There are efforts to reduce the  
15        inflammatory response to this alpha 1, 3 GALE  
16        epitope to be better able to accept grafts from  
17        other species, but this seems to be something very  
18        fundamental. I did the notation that you perhaps  
19        saw that new world monkeys and old world monkeys  
20        differ even in the presence of this epitope. And  
21        there are fundamental biological differences  
22        between the two kinds of monkeys, the old world

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1 monkeys and humans have opposable thumbs and we  
2 lack prehensile tails. So these are fundamental  
3 characteristics of humans.

4 And I don't know of any specific  
5 epidemiological study that you're looking for.  
6 The presence of the anti-GALE epitope is there.  
7 And there has also been the association with meat  
8 consumption and with tick bites, that they may also  
9 cause exposure to this epitope and some of the  
10 reactions may be a result of that. I don't know  
11 how to better answer than that information. Is  
12 there something else?

13 CHAIR FAVRE: Tom, did you have a  
14 follow-up?

15 MEMBER CHAPMAN: No, thank you, that's  
16 sufficient.

17 CHAIR FAVRE: Okay. I see Harold Austin  
18 has asked to ask a question, but, Harold, I don't  
19 know, it looks like you're not promoted, so Jenny,  
20 can you unmute him? Harold is a Board member, but  
21 we have him muted as part of a non-presenter. Do  
22 you have that as an option, Jenny?

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1 MS. TUCKER: I'm trying to find him on  
2 the list. What is his phone number?

3 CHAIR FAVRE: Harold, you might try to  
4 unmute yourself, I can't do it. I'm sorry.

5 MS. TUCKER: I'm unmuting everybody from  
6 509, there are only two of you. So, go ahead,  
7 Harold.

8 MEMBER AUSTIN: Okay. Can you hear me  
9 now?

10 CHAIR FAVRE: Yes, we can. Thank you.

11 MEMBER AUSTIN: Okay. A couple things.  
12 Dr. Tobacman, one of the things, looking at some  
13 of the studies that have been sent in, some of the  
14 comments, some of the reference points that we've  
15 been looking at and reviewing, and I was part of  
16 the original discussions that we had when I first  
17 came on to the Board back in 2012, looking at some  
18 of the reference points, like one of the studies  
19 by Dr. McKim, there seems to be a lot of difficulty  
20 by other researchers to try to replicate the  
21 findings that some of your research trials and  
22 studies have brought forth. Could you explain why

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1 that might be?

2 DR. TOBACMAN: I think if you'll read  
3 careful the paper from Dr. McKim, et al, which I  
4 was asked to review at one point in time, it's  
5 really a flawed paper. They tried to put into  
6 these embryonic kidney cells and one might ask, how  
7 relevant are embryonic kidney cells anyway to adult  
8 human inflammation? But they tried to put this  
9 construct with a TLR4 and a couple of the other  
10 molecules that are required for the activation of  
11 the TLR4 inflammatory pathway, but they didn't  
12 really demonstrate the presence of the TLR4 in  
13 their cells. They just demonstrated a response to  
14 LPS. LPS may have induced that response by other  
15 mechanisms.

16 There has to be an extra-cellular  
17 domain of the TLR4 present for it to have an active  
18 inflammatory cascade, so there's nothing in that  
19 paper that's viable. It got published in Food and  
20 Chemical Toxicology, which seems to be a favorite  
21 source for publication of these industry reports  
22 that are attempting to refute work. It's not just

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1 my work, there are other papers in the literature,  
2 9,900 papers, showing inflammatory effects of  
3 carrageenan. And it's not just my work that's  
4 showing TLR4, there are other papers, other  
5 descriptions in the literature. The activation of  
6 the tolite receptor pathway was reported to be  
7 associated with diabetes prior to our looking at  
8 it. And we find that there is activation of  
9 inflammatory pathways leading to glucose  
10 intolerance in association with carrageenan  
11 consumption.

12 The other critiques by industry of our  
13 work have involved using this NCM460 cell line,  
14 which was, when it was first reported, it was  
15 derived from normal human mucosa of a middle aged  
16 Hispanic male and then subsequently has been shown  
17 to be transformed. Most of the work that's done  
18 in cell culture is done with transformed cell  
19 lines, just because they continue to grow, so  
20 people are able to do experiments. We also did  
21 work with normal human colonic epithelial cells and  
22 many other cell lines. So, I don't know quite why

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1 they feel justified in being so critical of the  
2 NCM460 cell line. It, like other cell lines,  
3 showed inflammation from carrageenan.

4 There was also criticism that the  
5 carrageenan we used contained dextrose. The  
6 carrageenan that was used in all of our experiments  
7 that we've reported was obtained from Sigma  
8 Chemical Company, a very old, established,  
9 reliable source of material. Original molecular  
10 weight was reported to be over a million, so we  
11 thought we were working with very high molecular  
12 undegraded carrageenan. And there was some  
13 suggestion that some of the Sigma carrageenan had  
14 dextrose in it. Well, that would only lower your  
15 exposure to the carrageenan, it wouldn't be a  
16 particularly negative fact if it had dextrose, it  
17 would just mean that less carrageenan was actually  
18 producing the effect that we saw than we had  
19 initially reported.

20 CHAIR FAVRE: Thank you, Dr. Tobacman.  
21 In the interest of getting on schedule, which we've  
22 already slipped a little bit, I'd ask Harold if we

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1 can hold that question. I know this is a really  
2 complicated topic and we appreciate hearing from  
3 both sides to help us deliberate on this. Thank  
4 you very much. Next up is Madison Monty. And  
5 followed by that will be West Mathison. Madison,  
6 are you here with us?

7 MS. MONTY: Yes. Can you hear me?

8 CHAIR FAVRE: Yes, we can. Thank you.

9 MS. MONTY: Okay. Thank you. So, my  
10 name is Madison Monty and I am the policy advisor  
11 for the Northeast Organic Farming Association of  
12 Vermont. A little background, NOFA Vermont is one  
13 of the oldest organic farming associations in the  
14 country with around 1,200 members who are farmers,  
15 gardeners, and consumers, primarily in Vermont and  
16 other Northeastern states. I want to say I do  
17 appreciate the opportunity to comment to the Board  
18 today and I will be commenting on four topics,  
19 including hydroponics, excluded methods  
20 terminology, seed purity, and peracetic acid.

21 On hydroponics, which Nicole Dehne, our  
22 Certification Director, spoke about earlier, NOFA

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1 Vermont and VOF believe the maintenance of organic  
2 material in the soil, along with the diverse  
3 populations of organisms that are essential to soil  
4 ecosystems are the foundation of organic farming.  
5 The certification of hydroponic systems as organic  
6 as currently sanctioned by the NOP fails to  
7 recognize the essential functions of complex soil  
8 ecosystems in organic production and the role of  
9 organic farmers as stewards of soil ecology.

10 Hydroponic systems reduce crop  
11 production to a simplified feeding system of a  
12 nutrient solution and an inert growing medium.  
13 Furthermore, the current inconsistencies among  
14 certifiers in regard to certifying hydroponic  
15 systems diminishes the value of the organic label.  
16 And as Nicole mentioned in her comments, our  
17 Senator Patrick Leahy issued a letter earlier this  
18 year to USDA Secretary Tom Vilsack strongly  
19 advising the NOP to issue a moratorium on new  
20 certifications for hydroponic systems and we  
21 strongly support the Senator's request and we urge  
22 the NOSB to reconfirm the Board's commitment to

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1 soil-based production. And we look forward to  
2 hearing the further discussion about that at the  
3 meeting coming up.

4 And regarding excluded methods  
5 terminology, NOFA Vermont and VOF appreciate the  
6 NOSB's efforts to comprehensively examine the  
7 terminology and implications of excluded methods  
8 and to update the definitions that were established  
9 in 1995. Substantial advancements in  
10 agricultural biotechnology have and will continue  
11 to impact organic producers and challenge  
12 certification agencies that work hard to ensure the  
13 highest standards of production. So, we do  
14 promote the development of a comprehensive set of  
15 definitions of excluded methods terminology to  
16 ensure that the specific nature of new and evolving  
17 biotechnologies is fully captured, especially as  
18 it relates to organic production. So, we're glad  
19 to see the NOSB taking on that work.

20 With regard to seed purity, similarly,  
21 we support the NOSB's effort to continuously  
22 improve the processes, transparency, and data

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1 collection around seed purity in order to prevent  
2 contamination from GE seed. We feel this is a very  
3 important issue and we appreciate that the NOSB is  
4 taking a thoughtful and deliberate approach in  
5 addressing it. And in addition, we support the  
6 NOSB's proposal to require a declaration of seed  
7 purity for non-organic seed and we hope that the  
8 Board's recommendations will encourage producers  
9 to source more organic seed going forward. So,  
10 we're happy to see that work and we support that.

11 Lastly, we do support the relisting of  
12 peracetic acid to the national list for all uses.  
13 Peracetic acid is a very important compound for  
14 organic vegetable and fruit growers in Vermont, as  
15 well as, I think, many other places. It's an  
16 alternative to chlorine for killing post-harvest  
17 disease organisms as well as potential human  
18 pathogens. It's a key ingredient in foliar  
19 disease control products, some of which are also  
20 used to treat tubers and other crops prior to  
21 planting to reduce plant pathogens. Peracetic  
22 acid is also an alternative to the use of copper

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1 for managing late blight, which can be helpful in  
2 avoiding overuse of copper. So, just to  
3 reiterate, we do support the relisting of peracetic  
4 acid for all uses. And that's all I have. Thank  
5 you.

6 CHAIR FAVRE: Thank you, Madison.  
7 Anybody have any questions for Madison? Okay, I'm  
8 not seeing any. Thank you very much, Madison.

9 MS. MONTY: Okay. Thanks so much.

10 CHAIR FAVRE: Next up is West Mathison  
11 and then on deck is Margaret Scoles.

12 MR. MATHISON: All right. This is West  
13 Mathison. Can you guys hear me?

14 CHAIR FAVRE: Yes, we can. Thank you.

15 MR. MATHISON: Excellent. Well, thank  
16 you for letting me speak. I am a fifth generation  
17 apple and pear grower from the Washington State  
18 area. Our family grows and packs fruit and we sell  
19 about 2.5 million boxes. We've been doing  
20 organics for three decades. And we also go to  
21 market with 31 other organic apple and pear  
22 growers, most of which are smaller

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1 multigenerational family farms. We are also  
2 conventional farmers of apples and pears and we see  
3 many positive benefits of using the product called  
4 SmartFresh. This is a natural ethylene blocker  
5 that improves the quality and extends the  
6 seasonality of many popular apple and pear  
7 varieties.

8 SmartFresh is a non-toxic material that  
9 is applied in a very low dose in airtight storage  
10 rooms, which has no impact, because it's not  
11 applied outside, to pollinators, birds, or water  
12 quality. It has an extremely short shelf life and  
13 biodegrades into the product found in nature. It  
14 leaves no detectable residues in exempt from  
15 tolerance studies. Stemlit is a long time user of  
16 SmartFresh and believes that the product is  
17 effective in these areas.

18 First, it improves tack out by around  
19 ten percent because the fruit naturally has less  
20 decay and because of the reduction in receptibility  
21 of ethylene and it basically reduced decay without  
22 any toxicity or fungicide. It also reduces the

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1 need to repack or reduces shrink for apples and  
2 pears because it adds around ten days of shelf life.  
3 Also it improves freshness and flavor and we've  
4 seen between one to four pounds pressure  
5 improvement with the fruit coming out of storage  
6 maintaining the flavor and its crunchiness.

7 Also, SmartFresh is a great controller  
8 of storage scald, which is the top concern for  
9 storing organic apples and pears. Moreover, for  
10 smaller growers, it would allow them to store their  
11 organic products longer without the significant  
12 investment and expense of controlled atmosphere  
13 storage equipment. So a grower could use his or  
14 her regular storage cold room in conjunction with  
15 SmartFresh and add between 30 to 45 days of selling  
16 and marketing window. This would allow small  
17 organic growers to increase their production  
18 without the substantial construction costs of this  
19 sophisticated storage equipment.

20 We are certain that using SmartFresh on  
21 organic apples and pears would lengthen the  
22 marketing season for good quality organic fruit.

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1       Increasing the marketing window also would  
2       motivate more growers to transition to organic  
3       because they could store more fruit longer. We  
4       also feel that using SmartFresh on organic apples  
5       and pears would create an increase in domestic  
6       supplies and reduce the pressure to import organic  
7       apples and pears in the United States from other  
8       countries that don't have as strong of programs.

9               Organic apple and pear growers would  
10       obviously -- by the approval of SmartFresh, would  
11       pave the way for growth in organic acreage in the  
12       future. And so, we strongly support the petition  
13       to approve SmartFresh for the use of organic apples  
14       and pears. I want to thank you for your time and  
15       consideration and will answer any questions.

16               CHAIR FAVRE: Thank you, West. Harold,  
17       I see you have a question. Go ahead, Harold.

18               MEMBER AUSTIN: Okay, am I unmuted,  
19       Tracy?

20               CHAIR FAVRE: Yes, you are.

21               MEMBER AUSTIN: Okay. West, thanks for  
22       the presentation. For those listening,

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1 SmartFresh is currently petitioned before us and  
2 will be bringing it to the discussion in the fall  
3 meeting and it is 1-MCP. My question, West, for  
4 you, we know there's a lot of tools that  
5 conventional growers have or packing sheds have for  
6 storability, could you explain to us the difference  
7 that you see as a grower/packer in the quality and  
8 condition of the fruit from the early season  
9 closest to the harvesting time versus the stuff  
10 that you package and try to sell later in storage,  
11 that's coming out of the later storages? And the  
12 impact that 1-MCP would have on the condition of  
13 that later packed fruit?

14 MR. MATHISON: Yes. So before we had  
15 MCP, storing fruit really past December was really  
16 tricky and we saw a significant reduction in the  
17 pressure of the fruit and the flavor retention,  
18 just really was challenged before we had MCP. And  
19 so, since having SmartFresh, we've been able to  
20 effectively sell conventional products with really  
21 good pressures and flavors into the month of June  
22 and sometimes even July depending on the harvest

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1 weather.

2 The gala variety, for example, really  
3 was very marginal in terms of our ability to sell  
4 it after the month of March. So you'd harvest it  
5 in September and you'd pretty much be done in March.  
6 Now, with the advent of MCP-1, allows us to  
7 naturally store that fruit without any fungicides  
8 or toxicity later in the season in extending that  
9 window. And again, further reducing the need to  
10 import product from other countries.

11 MEMBER AUSTIN: Thank you.

12 CHAIR FAVRE: Great. Thank you, West.  
13 Appreciate it. Next up is Margaret Scoles,  
14 followed by Angela Wartes on deck. Go ahead,  
15 Margaret, if you're unmuted.

16 MS. SCOLES: Can you hear me?

17 CHAIR FAVRE: Yes, we can.

18 MS. SCOLES: Great. Thank you for this  
19 opportunity to provide comment. The web meetings  
20 are great. The International Organic Inspectors  
21 Association is a membership association of organic  
22 inspectors. And I have not submitted these

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1        comments in writing, Garth Kahl, a member of our  
2        Board of Directors will be at the D.C. meeting. I  
3        will try to keep my comments as brief as possible.  
4        First of all, on the discussion document on  
5        excluded methods terminology, great work. We're  
6        very supportive of the continued discussion and  
7        work on updating and clarifying excluded methods  
8        and we're pleased to see the inclusion of a  
9        definition of non-GMO that focuses on a process  
10       based definition. And we do think that you should  
11       include GE along with GMO when you're doing the  
12       terminology work.

13                We're very happy with the discussion  
14       document on seed purity. We think this was an  
15       essential first step and we commend you on the work  
16       that you have done. I have just a few comments and  
17       concerns. And first of all, we support others,  
18       others have suggested a seed purity task force to  
19       achieve feasible thresholds of GMO contamination  
20       and we support that. In general, we think that the  
21       organic seed requirement is currently not strong  
22       enough, even if it is written strongly in the

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1 regulation. Commercial availability is being  
2 overused and possibly even abused.

3 Many organic farmers are choosing not  
4 to use organic seed instead of being part of a  
5 movement to increase the amount of organic seed.  
6 Particularly onerous to some of us inspectors is  
7 when we see contractors buying organic grain from  
8 growers and providing non-organic seed back to them  
9 for planting. And we realize there is NOP  
10 guidance, but something may need to be done,  
11 whether it's in guidance or in regulation we're not  
12 sure.

13 We do join the National Organic  
14 Coalition and the Wild Farm Alliance and others in  
15 suggesting to the CAC that you add to your work  
16 agenda eliminating the incentive to convert native  
17 ecosystems into organic crop production. We  
18 realize you can't do everything, conversion of  
19 native ecosystems for organic ecosystems is a  
20 problem and so we just want you not to stop thinking  
21 about it. For livestock proposals, we do support  
22 reduction of withdrawal times for procaine and

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1 lidocaine. We think that's in the interest of  
2 animal welfare and a good move.

3 And in general, we support the work that  
4 you've done on parasiticides. Particularly we  
5 agree that wool and fleece from fiber bearing  
6 animals should be organic after an appropriate  
7 transition time. The current approach of last  
8 start of gestation is too large of a barrier to  
9 transition, it makes it almost impossible for fiber  
10 and lamb production to grow and it's not consistent  
11 with the approach to transitioning dairy.  
12 However, it doesn't seem correct that wool that's  
13 been treated with a synthetic parasiticide should  
14 be harvested as organic fiber. Wool clip grows for  
15 a whole year, so withdrawal time should be maybe  
16 addressed better for fiber harvest.

17 And our greater concern is the unequal  
18 application of emergency treatment. As  
19 inspectors, we see considerable difference in how  
20 emergency is determined. We are opposed to any  
21 changes that make it too easy for parasiticide use  
22 to become routine in an organic system. Perhaps

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1       there's a need to define emergency use better or  
2       to describe the need to follow a decision making  
3       hierarchy as currently exists in the regulation for  
4       both crop and handling standards. As far as  
5       sunset, we support relisting copper sulfate on 601,  
6       although we do have some concerns about the need  
7       for continuing technical review on alternatives.  
8       And we support relisting peracetic acid and calcium  
9       chloride. Good luck with vitamins and minerals.

10               CHAIR FAVRE: We appreciate that.  
11       Anybody have any questions for Margaret? Okay,  
12       I'm not seeing any. Thank you, Margaret. Thanks  
13       for taking the time today. Next up is Angela  
14       Wartes and following that is Tyler Smith. Angela,  
15       are you unmuted?

16               MS. WARTES-KAHL: I believe I am. Can  
17       you hear me?

18               CHAIR FAVRE: Yes, we can. Thank you.  
19       Please go ahead.

20               MS. WARTES-KAHL: Thank you. Hello and  
21       good afternoon. My name is Angela Wartes-Kahl and  
22       I'm an organic farmer in Western Oregon at Common

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1 Treasury Farm. Thank you for the opportunity to  
2 address the NOSB on the proposed annotation change  
3 for parasiticide use. I support the livestock  
4 community's proposal in its entirety. Common  
5 Treasury Farm has been certified organic since  
6 1993. Our operation is a small diversified  
7 vegetable, berry, and livestock operation.

8 I am also an advocate for local grown  
9 and produced fibers. I am working with Pacific  
10 Northwest chapter of Fibershed to build a  
11 processing facility for flax in Oregon and supply  
12 a growing consumer market looking for regionally  
13 grown fibers. I currently provide contract  
14 services to a certification agency to expand their  
15 fiber and textile program. I am also a certified  
16 wool classer, past student of the Design and Human  
17 Environment School at Oregon State University. I  
18 grow fiber flax on my farm and I raise a small flock  
19 of sheep. And I obviously do too much.

20 So by allowing the emergency use of  
21 parasiticides, a producer would be able to sell  
22 organic wool from animals that previously were only

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1 classified as breeding stock, management problems  
2 would be considerably less burdensome, and more  
3 producers would stay with organic certification in  
4 the organic wool market in the U.S. and begin to  
5 supply GOT certified production in this country.  
6 Parasiticide use in organic farms is a last resort,  
7 but the ability to use these products without  
8 decertifying the fleece has the potential to  
9 completely transform the organic wool market.

10 Currently, organic sheep producers are  
11 not playing on a level playing field. If there was  
12 complete equivalency between organic standards  
13 concerning livestock the world over, we would  
14 better compete with New Zealand and Australian wool  
15 imports. The global organic textile standards,  
16 GOT, touches on many aspects of textile production,  
17 but they don't include the animal's care beyond use  
18 and the treatment of animals falls into the  
19 livestock rules for each country. Yet the  
20 resulting wool fiber can be certified GOT and  
21 imported around the world, even though one place  
22 allows dewormers and we do not.

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1           U.S. wool is very high quality and the  
2 consumers currently are asking for U.S. made  
3 products, especially now that organic mattresses  
4 are so popular. There is not enough organic wool  
5 in the U.S. to fill manufacturing orders because  
6 burdensome requirements make management so  
7 difficult. This proposed annotation change can  
8 have an immediate positive impact on organic  
9 textile production. I submitted written comments  
10 on the subject as well, in which I go into the  
11 details of managing a flock and the level of  
12 organization you need to meld organic practices  
13 with sheep shearing procedures, especially to give  
14 the NOSB members a window into our operations.  
15 Thank you so much for all your hard work and I  
16 appreciate any questions.

17           CHAIR FAVRE: Thank you, Angela.  
18 Anybody have any questions for Angela?

19           MEMBER RICHARDSON: Question from Jean.

20           CHAIR FAVRE: Yes, Jean, go ahead.

21           MEMBER RICHARDSON: Hi, Angela, and  
22 thank you. I read your written document and I also

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1 just listened to Margaret Scoles make a comment  
2 that I would appreciate if you could help me to get  
3 to the bottom of, suggesting that there are  
4 parasiticide residues in wool and that you'd need  
5 to wait a year. Have you seen any documentation  
6 at all in your work that would indicate the residues  
7 in a parasiticide for a short, long, extended  
8 period of time, et cetera, in wool from different  
9 parasiticides?

10 MS. WARTES-KAHL: Yes. That's a very  
11 good point. And depending on what climate region  
12 you're producing sheep in, it kind of depends on  
13 what kind of parasiticide you're going to use. In  
14 the case of Margaret's area in Montana, they have  
15 fine wool breeds and they might deal with a lot of  
16 skin ectoparasites that would require a drench or  
17 a dip to deal with or in the case of ivermectin,  
18 it would also have an impact on the ectoparasites  
19 as well if it was taken internally. But in our  
20 area, we don't use anything straight on the back  
21 of the sheep and so it doesn't have an impact on  
22 either the shearer's health or safety and then also

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1 the resulting fleece, whether it would have a  
2 residue on it from the parasiticide.

3 There's been a number of studies, the  
4 most recent one that was brought to my attention,  
5 2003, about ivermectin residue inside the protein  
6 of the fiber of wool and how long that lasts or if  
7 it is detectable. The study was on Boer goats, not  
8 on sheep. And then also, it wasn't tested between  
9 maybe the secretions of sheep, which is going to  
10 be the lanolin, versus what was in the protein fiber  
11 of the actual wool.

12 So it's, I would say, pretty  
13 questionable, though the way the practice of  
14 shearing happens is that you shear once a year,  
15 sometimes two for long wools in our area, and a  
16 parasiticide application would be after the sheep  
17 was shorn. So it's like we shear them right before  
18 they lamb and then you probably give, if you need  
19 to, an emergency parasiticide later in the spring  
20 time, when the parasites are more prevalent, and  
21 then they have another whole year of growing the  
22 fleece out. So, I don't know if that answers your

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1 questions specifically on the two differences  
2 there.

3 MEMBER RICHARDSON: Thank you, that was  
4 very helpful. I have also sent an email to  
5 Margaret asking her for any scientific references  
6 she has on this topic, because obviously I have  
7 searched all over the place for these and I don't  
8 get the same kind of comments that Margaret  
9 provided me with in terms of residues over an  
10 extended period of time. So, if you've got a  
11 specific scientific reference that you know about  
12 or a study, I sure would appreciate getting that  
13 before we get to vote on this next week. And you  
14 can send it --

15 MS. WARTES-KAHL: Yes.

16 MEMBER RICHARDSON: -- to the  
17 Subcommittee if you would be so kind as an addendum  
18 to your public comment. Thank you.

19 MS. WARTES-KAHL: Yes, I will. Thank  
20 you, Jean.

21 CHAIR FAVRE: Great. And, Angela, we do  
22 agree with you that you're trying to do entirely

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1 too much. So thank you for being with us today.  
2 Next up is Tyler Smith and then on board after that  
3 is Marie Burcham. Tyler, are you with us?

4 MR. SMITH: Yes, I am.

5 CHAIR FAVRE: Great. We can hear you,  
6 please proceed.

7 MR. SMITH: Good afternoon. Again, my  
8 name is Tyler Smith. I'm the manager of the  
9 Consumer Reports Food Safety and Sustainability  
10 Center. My background is in environmental health  
11 science and risk assessment, as well as the  
12 development and evaluation of environmental health  
13 policy. As stated in our written comments,  
14 Consumer Reports does oppose the relisting of  
15 carrageenan by the NOSB due in part to concerns  
16 about the risks it may pose to human health. OFPA  
17 states clearly that a substance may be included on  
18 the national list only if its use would not be  
19 harmful to human health.

20 Now, there is an extensive literature  
21 on the carcinogenicity and toxicity of carrageenan  
22 at different molecular weights. And this

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1 literature is discussed in depth both in our  
2 written comments and in the comments submitted by  
3 Dr. Tobacman, who you may know is a physician  
4 scientist at the University of Illinois Chicago.  
5 So while a recent technical report did focus on  
6 human health issues related to carrageenan, there  
7 were several considerations that were not  
8 addressed by the report.

9 And in particular, we note that because  
10 the evidence in toxicity is strongest for low  
11 molecular weight forms of carrageenan, many of the  
12 studies that were reviewed in the report focused  
13 on the average molecular weight of carrageenan  
14 that's added to food, or food grade carrageenan.  
15 A focus on the average molecular weight, however,  
16 does not consider whether a low molecular weight  
17 fraction is nonetheless present in carrageenan.  
18 Now, the TR does cite an analysis of 29 food grade  
19 carrageenan samples by Ito and colleagues and they  
20 found that none of the food grade carrageenan  
21 contained molecular weight fractions equivalent to  
22 poligeenan, which is the low molecular weight form,

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1 at a detection limit of about five percent.

2 Now, the report did not discuss at all  
3 the adequacy of this detection limit. So, for  
4 example, if four to five percent of carrageenan  
5 added to food is low molecular weight poligeenan or  
6 equivalent to poligeenan, then what is the cancer  
7 risk to consumers? We really are not able to  
8 assume that five percent is a small number  
9 toxicologically speaking and this question  
10 deserves further analysis before any decision to  
11 relist carrageenan is made by the NOSB. Really,  
12 at this point, the NOSB is not able to conclude that  
13 the use of carrageenan in food is not harmful to  
14 human health, which is the standard under organic  
15 law, and for this reason, Consumer Reports opposes  
16 the relisting of carrageenan. Thank you.

17 CHAIR FAVRE: Okay. Thank you, Tyler.  
18 Anybody have any questions for Tyler? Okay, I  
19 don't see any. Thank you, Tyler. We appreciate  
20 it.

21 MR. SMITH: Thank you.

22 CHAIR FAVRE: Next up is Marie Burcham.

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1 Marie, are you with us?

2 MS. TUCKER: Yes. Hold on a second,  
3 we've got a number of folks from area code 608, so  
4 I need to unmute all of them, find out who it is  
5 that's speaking, and then mute the folks again. So  
6 give me just a moment.

7 CHAIR FAVRE: Okay. Just saw a chat  
8 from Marie that her number starts with 510.

9 MS. TUCKER: 510?

10 CHAIR FAVRE: Yes.

11 MS. TUCKER: Okay. That's different  
12 than what we had. Okay, Marie, can you hear us?

13 MS. BURCHAM: I can hear you, can you  
14 hear me?

15 CHAIR FAVRE: Yes, we can. Thank you,  
16 Marie.

17 MS. BURCHAM: Excellent.

18 CHAIR FAVRE: And before you start, next  
19 up after Marie is Kelly Damewood. Okay. Marie,  
20 go ahead.

21 MS. BURCHAM: Hi, good afternoon. My  
22 name is Marie Burcham and I'm a policy analyst with

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1 the Cornucopia Institute. I would like to speak  
2 about the policy and procedures manual rewrite.  
3 In general, Cornucopia opposes this rewrite  
4 because of the manner in which it was done. The  
5 PPM provides a framework to all Board activities  
6 with respect for the process already established  
7 for making changes to this manual. Cornucopia has  
8 submitted detailed comments on these issues and  
9 we've also released a side-by-side comparison  
10 chart, which we hope will assist the Board and the  
11 public in the analysis of the draft manual. The  
12 NOP did not make it easy for the NOSB members or  
13 the public to understand and compare the major  
14 changes they were proposing.

15 I would like to speak briefly about the  
16 specific concerns with the hope that other people  
17 will talk generally about these issues. First,  
18 public access to the documents should not be  
19 delayed or discounted. The Federal Advisory  
20 Committee Act dictates that many documents,  
21 including working papers, are made available to  
22 public inspection. There is language in the

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1 rewritten manual that appears to conflict with FACA  
2 directly by limiting public access to this kind of  
3 information.

4 Second, the manual is vague and lacks  
5 clear conflict of interest policies. If this  
6 manual is updated, it's important that conflict of  
7 interests are well managed to maintain the public  
8 trust. Specific to conflicts of interest, both  
9 contractors and individual scientists and  
10 technical experts that conduct the reviews for  
11 materials should be named. That's so that full  
12 conflict checks can be performed at this stage as  
13 well. The Organic Foods Production Act  
14 specifically gives NOSB the power to contract for  
15 material review directly and not through the NOP.

16 Third, compared to the current PPM, the  
17 new draft manual diminishes the NOSB's ability to  
18 establish their own procedures. If the NOSB's  
19 duties are constricted by NOP management, it will  
20 infringe upon the Board's ability to act as a link  
21 to the organic community and defend the integrity  
22 of organics. Fourth, the time available for

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1 public comment on potential changes to the national  
2 list was cut in half, from 60 days to 30 days. This  
3 time is not sufficient for a well developed public  
4 comment.

5 Fifth, the Board's ability to control  
6 their own agenda is compromised by this rewrite.  
7 Congress intended that the NOSB remain an  
8 independent body. The Board cannot advise the  
9 Secretary properly if its authority to develop a  
10 work plan and agenda or create committees and  
11 procedures is diminished or denied. The language  
12 giving NOSB control of their own agenda must be  
13 restored to maintain a proper balance if this  
14 rewrite goes through. These issues do not come at  
15 the cost of collaboration, but rather maintain the  
16 intended purpose of the NOSB as described in OFPA.

17 Finally, there are many fatal  
18 ambiguities, undefined terms, and inconsistencies  
19 found throughout the new draft. These issues,  
20 both big and small, only serve to frustrate the  
21 Board and the public. Our submitted comments go  
22 into more detail and I hope that they will help you

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1 in making this decision. I'll close by saying, if  
2 the manual does need to be updated, it should be  
3 directed by the NOSB with input from the public.  
4 Thank you very much. I'm happy to answer specific  
5 questions and if you have future questions about  
6 our comments or the chart, I would love to front  
7 those as well.

8 CHAIR FAVRE: Thank you, Marie. I see  
9 Tom Chapman has a question. Tom, go ahead.

10 MEMBER CHAPMAN: Yes. First of all,  
11 thank you for your detailed comments on the PPM and  
12 comments here, with the limits on time, I won't be  
13 able to dig into every comment. But I want to talk  
14 to you about, let's go with agenda setting. Are  
15 you aware of any requirements in the OFPA that  
16 specifically speaks to agenda?

17 MS. BURCHAM: I don't think there's  
18 anything specific to agendas as named, but the NOSB  
19 is supposed to direct their own schedule and review  
20 because they're the ones that are supposed to be  
21 advising the Secretary. It's not supposed to be  
22 a relationship mediated through NOP necessarily.

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1 And --

2 MEMBER CHAPMAN: Is that on the  
3 information off our FACA or is that just opinion?

4 MS. BURCHAM: That's based on a  
5 publication and I don't have that right in front  
6 of me, but it is in our comments and I can also give  
7 it to you afterward if that would be helpful.

8 MEMBER CHAPMAN: Yes, it would be. I'm  
9 looking at a section of FACA that states in Section  
10 10(f), Advisory committees shall not hold any  
11 meetings except at the call of, or with the advance  
12 approval of, a designated officer or employee of  
13 the Federal Government, and in the case of advisory  
14 committees, other than Presidential advisory  
15 committees, with an agenda approved by such officer  
16 or employee. It's stating that agendas need to be  
17 approved at the point of FACA by government  
18 employees. Can you speak to that?

19 MS. BURCHAM: Approval is not creation.  
20 So, the creation of your own work agenda just means  
21 that the NOSB is in control of creating that work  
22 agenda, directing their own procedures, whereas

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1 approval is a check mark or a review once that work  
2 agenda has been created by the NOSB.

3 MEMBER CHAPMAN: Okay. Let me hear you  
4 correctly, you do agree that FACA requires  
5 government approval of the NOSB agenda, is that  
6 correct?

7 MS. BURCHAM: It sounds like it, yes.

8 MEMBER CHAPMAN: Thank you.

9 MS. BURCHAM: Again, I went into more  
10 detail in our comments and there should be full  
11 citations to everything.

12 MEMBER CHAPMAN: Definitely, you  
13 definitely did and this format only allows for  
14 certain question and answers. I appreciate your  
15 time.

16 MS. BURCHAM: Right.

17 MEMBER CHAPMAN: Thank you very much.

18 MS. BURCHAM: You're welcome. Thank  
19 you.

20 CHAIR FAVRE: Thank you, Marie. Next up  
21 is Kelly Damewood and following that on deck is  
22 Helen Kees. Kelly, are you with us?

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1 MS. DAMEWOOD: Yes. Can you hear me?

2 CHAIR FAVRE: Yes, we can. Please go  
3 ahead.

4 MS. DAMEWOOD: Okay, great. Thanks.  
5 So thank you NOSB members for the opportunity to  
6 provide public comment today. I'm Kelly Damewood,  
7 policy director at CCOF, California Certified  
8 Organic Farmers. We are a nonprofit organization  
9 that advances organic agriculture through  
10 certification, education, advocacy, and  
11 promotion. We're based in Santa Cruz, California  
12 and represent more than 3,000 certified organic  
13 members in 42 different states and three countries.

14 So, my comments today are to express  
15 strong support for NOSB's ongoing work related to  
16 GMOs, including updating the excluded methods  
17 terminology and determining next steps for seed  
18 purity guidance. This work is essential and must  
19 remain a top priority for NOSB moving forward. GMO  
20 technology continues to rapidly evolve and expand.  
21 It's essentially unchecked and poorly regulated at  
22 best. Therefore, the organic certification

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1 process must also evolve. Organic producers need  
2 clear guidance and every tool available to prevent  
3 risk of inadvertent contamination.

4 The growing presence of GMO seed in  
5 crops, the complicated terminology and evolving  
6 technology is certainly overwhelming. Yet, we  
7 cannot let our inability to tackle every single  
8 aspect of this issue now really cripple and prevent  
9 us from moving forward and developing logical  
10 certification tools that address the highest areas  
11 of concern. So, to that effect, CCOF supports the  
12 establishment of a USDA Seed Purity Task Force.  
13 That task force should take immediate action to  
14 address the use of non-organic seed with GMO  
15 equivalents, otherwise known as at-risk seeds.  
16 These are an obvious source of contamination.

17 NOSB should move forward on this  
18 discrete area of risk and help develop  
19 recommendations for guidance that would allow  
20 certifiers to implement consistent verification  
21 processes to ensure at-risk seed is non-GMO.  
22 Certifiers can and do test for GMOs under the

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1 mandated residue testing requirements and based on  
2 test results, certifiers must investigate down the  
3 supply chain and trace the cause of contamination.  
4 This investigatory authority and traceability  
5 means that organic can and does address sources of  
6 contamination now.

7           And with further guidance and proactive  
8 steps, organic certification processes can  
9 strengthen oversight and prevention of inadvertent  
10 GMO presence on organic product and ensure that  
11 organic consumers are receiving the non-GMO food  
12 that they expect and demand. The CCOF supports the  
13 excluded methods proposal and it urges NOSB to move  
14 forward on seed purity and excluded methods  
15 recommendations. So, thank you for your time and  
16 consideration of CCOF's comments.

17           CHAIR FAVRE: Great. Thank you, Kelly.  
18 Anybody have any questions for Kelly? Okay, I  
19 don't see any. Thank you very much, Kelly.

20           MS. DAMEWOOD: Thank you.

21           CHAIR FAVRE: Next up is Helen Kees and  
22 we've got Kristen Walker on deck. Helen, are you

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1 with us?

2 MS. TUCKER: We've got a number of  
3 callers from area code 608, which is what I believe  
4 Helen is calling from. So I've now unmuted anybody  
5 in the area code of 608. So, Helen, are you with  
6 us?

7 MR. CASTEL: This is Mark Castel. Helen  
8 is in the 715 area code.

9 MS. TUCKER: Oh, okay. We don't have  
10 anyone from the 715 area code. Yes, she gave us  
11 a 608 number and that's why I unmuted all the 608s.  
12 I don't have a 715 area code caller.

13 CHAIR FAVRE: Okay. We'll come back.  
14 Helen, if you are on the line and we've missed you,  
15 we'll try to fit you in at the end. I'll check,  
16 we've got a couple of people that we might have to  
17 do that to. So, next up is Kristen Walker and then  
18 we have Amber Pool on deck. Kristen, are you with  
19 us?

20 MS. TUCKER: Hold on, Tracy. We've got  
21 to find her.

22 CHAIR FAVRE: Okay. Just give us a

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1 moment everybody.

2 MS. TUCKER: I've got a 267, let's see  
3 if she's listed on it as a name. I don't have any  
4 Ks, is she up above? It doesn't look like we have  
5 a Kristen on the line, Tracy. We're looking  
6 through all the various ways we can find somebody  
7 and not finding her. Again, the area code was  
8 what, 269? I've got a 267.

9 CHAIR FAVRE: Okay. Kristen, if you are  
10 on the line, you can send us a message in the chat  
11 box. If not, we'll try to come back to you if you  
12 are on the line later. So, Amber, that puts you  
13 in the hot seat a little early if you're with us.  
14 Amber?

15 MS. TUCKER: I've got to find Amber too.  
16 Just a second.

17 CHAIR FAVRE: Okay. Now we're rolling  
18 ahead, so everybody be patient with us as we handle  
19 the logistics of this. Again, I have a mental  
20 picture of them running around the room unmuting.

21 MS. TUCKER: Okay. Amber is what area  
22 code, 831? Oh, I've got a couple of 831s, so that's

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1 good. There's hope here. Amber, are you there?

2 MS. POOL: Hi, I'm here. Can you hear  
3 me?

4 CHAIR FAVRE: Yes, we can. Great.

5 MS. POOL: Okay.

6 CHAIR FAVRE: And then just as fair  
7 warning, next up Christine Rich is on deck. Go  
8 ahead, Amber. Thank you.

9 MS. POOL: Okay. Hi, this is Amber  
10 Pool. I've been an organic certification  
11 specialist for CCOF for ten years in the farm  
12 department. And today I'm going to talk about the  
13 sunset of copper sulfate. And we have 228 CCOF  
14 members who have copper sulfate on their organic  
15 system plan. It's a critical input for aquatic  
16 feed and rice producers and they use it to manage  
17 fairy shrimp and scum disease that interferes with  
18 crop germination. We see that the growers don't  
19 need to use this product every year, but there are  
20 certain situations where this is an essential tool  
21 for producing an organic rice crop.

22 We reached out to all of our rice

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1 producers who are using copper sulfate and they  
2 told us that they would not be able to produce  
3 organic rice because there is no viable  
4 alternative. Each year at their inspection, the  
5 growers have to demonstrate that they are not over  
6 applying copper and we've never seen evidence of  
7 over applications and we haven't seen copper  
8 accumulation in the water or the soil. And this  
9 is due to the high cost of these copper materials,  
10 in addition to EPA regulations and water  
11 regulations. And, with that, I'm complete and I'm  
12 happy to answer any questions.

13 CHAIR FAVRE: Okay. Do we have any  
14 questions for Amber? Okay, Amber, I don't see any,  
15 so thank you for taking the time to join us today.

16 MS. POOL: Thank you.

17 CHAIR FAVRE: Next up is Christine Rich.  
18 Christine, are you with us yet?

19 MS. TUCKER: We don't have Christine's  
20 area code showing up. She's area code 209. I  
21 don't have her listed as a name. So, I don't either  
22 have a name or a number for her.

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1 CHAIR FAVRE: Okay.

2 MS. TUCKER: If you hold on one -- what  
3 I'm trying to do now is, because it seems like  
4 people are using different numbers than they signed  
5 up with, we're trying to reach out to them in  
6 advance to see if we can figure out what number  
7 they're calling from, but I don't even see her on  
8 the -- she's not even on the web version. So I  
9 don't think we have her.

10 CHAIR FAVRE: Okay. Well, then if we  
11 don't have Christine, Christine, if you join us,  
12 if you'll send in a message to the chat box, we'll  
13 try to work you in at the end if we have time. The  
14 next up on the list is Amber King. Jenny, have we  
15 found Amber?

16 MS. TUCKER: Give me a second, I've got  
17 to find her too.

18 CHAIR FAVRE: Okay.

19 MS. TUCKER: Amber, she's not up there.  
20 What's the area code, 907? We don't have her area  
21 code and we don't have her listed by name. So if  
22 she's calling in, she might be calling in from a

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1 different number. Let me check one other place to  
2 see if she's on us with chat. Amber King. Hold  
3 on. Amber King, there she is. Let's see if we can  
4 get her to send her -- just a sec.

5 If you are on deck for a future call,  
6 to speak in the future, if you could please send  
7 us your phone number. We're finding that most  
8 people are actually dialing from different numbers  
9 than they gave us, which is making it really hard  
10 to find you. So if you are on deck to give public  
11 comments, please go ahead and send us your phone  
12 number in the chat box. The only people that will  
13 see it are the leads here at the NOP and the NOSB  
14 Board members, so we're not releasing your phone  
15 number, but we need it to figure out who you are  
16 so we can unmute you.

17 CHAIR FAVRE: Okay. In the interest of  
18 staying on schedule, Amber, I know that you're  
19 online, but we don't have a phone number for you,  
20 we'll try to work you in at the end. I see next  
21 up is Peter Pitts. And Peter just chatted in that  
22 he's here on VOIP. So, Jenny, I'm not sure

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1 exactly, I guess maybe you had the opportunity to  
2 unmute him there?

3 MS. TUCKER: Yes, he is now unmuted.  
4 So, Peter --

5 CHAIR FAVRE: Okay.

6 MS. TUCKER: -- you can go ahead.

7 CHAIR FAVRE: Peter, are you here?

8 MR. PITTS: Can you hear me? I am, can  
9 you hear me?

10 CHAIR FAVRE: Yes, we can.

11 MR. PITTS: Excellent, thank you.

12 CHAIR FAVRE: And before you get  
13 started, let me just warn everybody that Kelly  
14 Taveras is on deck after Peter. So, go ahead,  
15 Peter. Thank you.

16 MR. PITTS: Thank you. I'm the  
17 president of the Center for Medicine in the Public  
18 Interest and a former associate commissioner at the  
19 U.S. Food and Drug Administration. I'd like to  
20 thank all the folks at NOSB for taking the time to  
21 hear comments from the public about whether USDA  
22 should continue listing carrageenan as a

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1 nonsynthetic ingredient for use in organic  
2 products and I'd like to add my thoughts to the  
3 discussion.

4 In my former capacity at the FDA, I was  
5 responsible for convening diverse stakeholders in  
6 the health and wellness sectors to evaluate  
7 critical health challenges including obesity and  
8 provide public policy recommendations. And a  
9 fundamental part of this effort was offering  
10 recommendations grounded in a science based  
11 approach, that means reviewing all the facts before  
12 us and giving weight to peer reviewed research that  
13 has been replicated many times over.

14 With the democratization of the  
15 internet, it's becoming increasingly difficult to  
16 differentiate between sound science and what has  
17 been dubbed junk science or pseudoscience. And  
18 the shifting landscape has changed the way  
19 consumers get their information and make informed  
20 decisions about a variety of issues, especially  
21 ones with an overwhelming amount of research that  
22 can be found online. That increased exposure

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1 means that it's harder for consumers to determine  
2 fact from fiction.

3 In some cases, third party  
4 organizations and scientists with dubious research  
5 have emerged to fill the gap and find creative ways  
6 to profit from this misinformation and confusion.  
7 And I think this trend is not only concerning, it's  
8 dangerous. In the case of carrageenan, there are  
9 numerous studies that have proven time and again  
10 that it's safe to use, offers nutritional benefits,  
11 and is an important thickener and stabilizer for  
12 a wide ranging consumer product group.

13 Equally as important is that there is  
14 a scientific consensus among leading health and  
15 international organizations, including my former  
16 agency the FDA, the United Nations Food and  
17 Agricultural Organization, the WHO, and regulatory  
18 agencies in various countries and what's more, is  
19 that carrageenan has been around for centuries and  
20 it's been cultivated and consumed by different  
21 cultures in many countries around the world. So,  
22 against this backdrop, it's important to

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1 understand the agenda of those who are advocating  
2 for carrageenan's sunset. With only one flawed  
3 scientific study to back up their claim, the  
4 question is, what's driving these truths? Is it  
5 science or is it something else? And what do  
6 people really stand to gain?

7 I think that the vaccine debate is a  
8 cautionary tale for us to understand. Up until  
9 recently, it's been a scientifically accepted  
10 principle that we should vaccinate our children to  
11 protect them from life threatening viruses once the  
12 scourge of health and now really absent for the  
13 current generation. But due to unsubstantiated  
14 claims that vaccines can cause autism, we've seen  
15 a growing trend of parents who refuse to vaccinate  
16 their children. And that's really frightening.

17 Now while the impact of the decision in  
18 front of you will not be life threatening, it would  
19 negatively impact the tens of thousands of farmers  
20 whose livelihoods depend on harvesting this  
21 ingredient, carrageenan. It also would impact our  
22 food system, making the texture of many products

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1 less appealing and leading to more food waste as  
2 certain products would have much shorter shelf  
3 lives. Changing carrageenan's designation would  
4 reverse decades of added benefits to consumers.  
5 So, having once in a position similar to yours  
6 today, I appreciate the challenge you have before  
7 you and I ask you to lead with sound science.  
8 Please, don't let politics or hidden agendas  
9 distract you from the task at hand. Thank you for  
10 your time. I'm happy to answer any questions.

11 CHAIR FAVRE: Thank you, Peter. Harold  
12 Austin has a question for you. Go ahead, Harold.

13 MEMBER AUSTIN: Thanks, Tracy. Peter,  
14 hearing some of the testimonies today and looking  
15 at a lot of the comments that are submitted to us,  
16 there seems to be this continual overlap in misuse  
17 of the characterization of carrageenan and  
18 poligeenan. Could you explain the -- are you able  
19 to explain the difference between those two briefly  
20 for us so that we have a better understanding of  
21 what carrageenan is and what poligeenan is?

22 MR. PITTS: No, that's not my field. My

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1 field is public policy and scientific accuracy.  
2 And the comment I was trying to offer really is to  
3 stick to the science, you guys are the experts.  
4 Science is rarely a black and white, binary, yes/no  
5 proposition, but to weigh all the science in front  
6 of you that you feel is relevant based on your  
7 testimony and the public's testimony, both written  
8 and oral, and then make a wise decision.

9 MEMBER AUSTIN: Okay. All right.  
10 Thank you.

11 CHAIR FAVRE: Any other questions for  
12 Peter? Okay, thank you very much for your  
13 comments, Peter.

14 MR. PITTS: Thank you.

15 CHAIR FAVRE: Next up is Kelly Taveras  
16 and on deck is Ryan Howard. Kelly --

17 MS. TUCKER: Hold on.

18 CHAIR FAVRE: -- are you with us?

19 MS. TUCKER: Hold on. Okay. Try,  
20 Kelly.

21 MS. TAVERAS: Hi, I'm here.

22 MS. TUCKER: Okay, thank you.

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1 CHAIR FAVRE: Yes, we can hear you,  
2 Kelly. Please go ahead.

3 MS. TAVERAS: Great. Good afternoon.  
4 My name is Kelly Taveras and I serve as the  
5 associate director of digital engagement for the  
6 Organic Trade Association. On behalf of OTA, I'd  
7 like to welcome the new Board members and thank you  
8 for beginning the five year journey of critical and  
9 greatly appreciated service to the organic sector.  
10 My colleagues will speak on specific agenda topics  
11 at the in-person meeting and you have our detailed  
12 written comments, so my remarks will focus on an  
13 introduction to OTA's membership for new Board  
14 members, our NOSB comment process, and our sunset  
15 material review work.

16 To begin, I'd like to thank NOSB and the  
17 National Organic Program for offering this virtual  
18 opportunity for public comment preceding the  
19 in-person meeting. Increasing accessibility to  
20 this process is a big step forward and I'm very  
21 excited to be taking advantage of the option. I  
22 would also like to mention that OTA has published

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1       our NOSB resource booklet in advance of the spring  
2       meeting, and one of the feature articles in this  
3       edition highlights the work of the National List  
4       Innovation Working Group to find an organic  
5       alternative to celery powder.

6               The process the working group is  
7       following also informed the introduction to the  
8       resource booklet and the model that we've created  
9       to help guide the organic sector in its efforts to  
10       develop organic and natural alternatives to  
11       national list materials. Also, be sure to check  
12       out the booklet for summaries of OTA comments and  
13       a deeper dive into historical perspectives on the  
14       national list.

15              So, a bit about the Organic Trade  
16       Association. One of OTA's strongest assets as an  
17       organization is the diversity and breadth of our  
18       membership. Unlike many trade associations, OTA  
19       is uniquely structured to include the full value  
20       chain for the organic industry, ensuring that all  
21       segments from farm to marketplace have a strong  
22       voice within the organization. OTA brings farmers

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1 and growers, ingredient suppliers, processors,  
2 manufacturers, distributors, retailers, and many  
3 others together to promote and protect the growing  
4 organic sector.

5 We represent over 8,500 business in all  
6 50 states and half of OTA members are small business  
7 reporting less than \$1 million in organic sales per  
8 year. OTA members are represented either through  
9 direct membership or through strategic  
10 partnerships with regional organic producer  
11 organizations across the U.S. through our Farmer's  
12 Advisory Council. OTA's membership is completely  
13 transparent as well, so if you visit ota.com,  
14 you'll see clearly stated information on how to  
15 become a member, what the benefits of membership  
16 are, and even more importantly, how we engage  
17 members in our advocacy work.

18 OTA members are proud to be a part of  
19 the Association and the OTA member list is and  
20 always has been open to the public. Our membership  
21 is also notably governed by a democratically  
22 elected Board of Directors, ensuring that we are

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1 accurately representing our stakeholders. The  
2 comments that OTA submitted to NOSB are on behalf  
3 of this membership. In order to do this, our  
4 regulatory staff carries out an extensive process  
5 of member engagement so that we can understand how  
6 NOSB recommendations will impact certified farmers  
7 and handlers on a day-to-day basis.

8 The feedback collected informs our  
9 draft comments, which are distributed to the  
10 membership at least a week in advance of comment  
11 deadlines, and then members are provided with an  
12 opportunity to weigh in and inform any changes that  
13 may be needed prior to our final submission. To  
14 help facilitate a thorough comment and review  
15 process for 2018 sunset materials, we created an  
16 electronic survey for each individual input under  
17 review. The surveys are confidential, user  
18 friendly, available to every NOP certificate  
19 holder, and include seven to ten questions that  
20 specifically address the necessity or centrality  
21 of the national list input under review.

22 So, you have our written comments,

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1 which include all of the survey responses we  
2 received to date, and we're proud to have collected  
3 a total of 52 unique responses from organic  
4 businesses across the U.S. and we will continue to  
5 collect responses to inform the vote that will take  
6 place in the fall. Thank you to the Board for your  
7 hard work and commitment to furthering organics.  
8 And that's it for me.

9 CHAIR FAVRE: Thank you, Kelly.  
10 Anybody have questions for Kelly? Okay, I'm not  
11 seeing any. Thank you for your comments, Kelly.

12 MS. TAVERAS: Thank you.

13 CHAIR FAVRE: Next up is Ryan Howard,  
14 with Myra Weiner on deck. Ryan, are you with us?

15 MR. HOWARD: I am. Can you hear me okay?

16 CHAIR FAVRE: Yes, we can. Please go  
17 ahead.

18 MR. HOWARD: Great. I want to thank the  
19 Organic Board for hearing my comments. So my name  
20 is Ryan Howard. I'm president of Chicago Vegan  
21 Foods the company who manufactures Dandie's Vegan  
22 Marshmallows and a 23 year vegan. To me, my

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1        comments I feel are kind of are superfluous to all  
2        the scientific support of carrageenan safety, but  
3        I just wanted to provide a comment on my perspective  
4        as a long time vegan and as an industry person, a  
5        food manufacturer.

6                    So, by default, being vegan kind of  
7        means that I eat a lot of organic foods, maybe even  
8        up to 50 percent, so a lot of the foods that made  
9        it easy for me to be vegan and for newcomers to stay  
10        vegan, like vegan cheeses, soy milk, mock meats,  
11        they use carrageenan and they do a really good job  
12        at mimicking the original product.        That's  
13        important to me as a vegan because it saves animals'  
14        lives.        Now, as someone who likes food, food  
15        product quality I feel has suffered because of this  
16        like climate change denier style fanatical  
17        carrageenan attacks.

18                    I get these comments and I know other  
19        companies get these comments, they're being  
20        bullied and a lot of these companies are tired of  
21        hearing things like carrageenan causes cancer and  
22        carrageenan is poison, and so a lot of companies

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1 have changed their ingredients. And it's coming  
2 from a very, very vocal minority, but to the rest  
3 of us who don't care about that and don't feel the  
4 same way, we just care about the product and the  
5 product quality has suffered greatly with a lot of  
6 these organic and natural products. To the point  
7 which I have actually stopped buying certain  
8 brands.

9 I don't like vegan coffee creamers that  
10 just dilutes my coffee and I don't like soy milk  
11 that's not smooth. It sounds cool, but it doesn't  
12 have a good texture on soy milk. So I just feel  
13 like I'm not alone here, but the people who are  
14 really, really screaming are not my friends and I  
15 and people I know. As a manufacturer, carrageenan  
16 is important to me because I'm looking to make  
17 natural vegan analog products that are very close  
18 to or better than their conventional counterparts.  
19 Carrageenan is used at very low levels and it does  
20 a great job.

21 So, one of my reasons for talking today  
22 is because I really want to develop an organic vegan

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1 marshmallow, but I'm really concerned that if I  
2 spend money and time and R&D resources on  
3 developing one, that it's potentially going to be  
4 removed from the acceptable list in the new future.  
5 And I worry about like if carrageenan, which is a  
6 product used at very low use levels, is removed from  
7 the list that other ingredients could be removed  
8 as well. So, I mean, I see on the International  
9 Agency for Research on Cancers Class 2B carcinogen  
10 list, we've got coffee and pickled vegetables.  
11 And there's probably way more exposure to coffee  
12 and pickles than carrageenan in a handful of  
13 products. So, that's my comment. And thanks a  
14 lot everybody.

15 CHAIR FAVRE: Okay. Thank you very  
16 much, Ryan. Anybody have any questions? Yes,  
17 Zea, I see you have a question for Ryan. Go ahead.

18 MEMBER SONNABEND: Yes, thank you. In  
19 your situation, which non-vegan components are you  
20 using carrageenan as a substitute for? Is it just  
21 gelatin or do you consider things like xanthan gum  
22 or gellan gum, which are derived from bacteria, to

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1 be non-vegan?

2 MR. HOWARD: Oh, no, no, no, no, I'm  
3 certainly cool with gellan and xanthan. It's  
4 essentially an issue of just replacing gelatin,  
5 certainly, is a huge one for me, and I look at how  
6 that important that is to remove. As a vegan  
7 removing gelatin is a revenue stream for processors  
8 from their byproduct waste, and that's important  
9 to me as a vegan, but as I look at other things,  
10 I'm not concerned with the -- if gellan or xanthan  
11 are or are not vegan. They're vegan to me, so --

12 MEMBER SONNABEND: Okay.

13 MR. HOWARD: -- it's not an issue.

14 CHAIR FAVRE: Okay. Any other  
15 questions for Ryan?

16 MR. HOWARD: Just simply that they don't  
17 make as good or tasty of a product as carrageenan  
18 does, period, in my mind.

19 CHAIR FAVRE: Great. Thank you very  
20 much, Ryan. Next up --

21 MR. HOWARD: You're welcome.

22 CHAIR FAVRE: -- is Myra Weiner,

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1 followed by Shakeel Rehman.

2 DR. WEINER: Hello, do you hear me?

3 CHAIR FAVRE: Yes, we do, Myra. And I  
4 understand you have a presentation, is that  
5 correct?

6 DR. WEINER: Yes, I do.

7 CHAIR FAVRE: Okay. Folks, just direct  
8 yourself to the screen on the webinar, if you're  
9 online you can see it. Thank you very much. Go  
10 ahead.

11 DR. WEINER: Hello. I'm Dr. Myra Weiner  
12 and I'm here to support the continued listing of  
13 carrageenan under the sunset review. Next slide  
14 please. The safety of carrageenan is  
15 unimpeachable and there is a very large database  
16 of studies to support its safe use in food. The  
17 most recent study conducted is an infant formula  
18 toxicity and toxicokinetic study on pre-weaning  
19 pigs. This was conducted in compliance with GLP  
20 guidelines, with many parameters evaluated, as  
21 shown on this slide.

22 The World Health Organization Joint

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1 Expert Committee on Food Additives reviewed this  
2 study and determined that carrageenan is safe as  
3 an additive to infant formula and infant formula  
4 for babies with special medical needs. Next slide  
5 please. However, in the docket, we saw letters  
6 indicating that there were flaws in the infant  
7 formula study. I would like to address these  
8 apparent flaws and dispel falsehoods regarding  
9 this study. One, pigs are an excellent proven  
10 animal model for human responses. There is no  
11 substantiation to the epitope theory.

12 Two, as a standard practice, animal  
13 were allowed to nurse for 48 hours to benefit from  
14 maternal colostrum. This is true for every animal  
15 in this study. Three, antibiotics and iron were  
16 given to all animals based on veterinary guidelines  
17 for good animal care. Four, a few incidental  
18 deaths occurred early in the study without regard  
19 to carrageenan dose level, including control  
20 animals. Replacement animals were added to the  
21 study. Five, a slight increase in watery stools  
22 was noticed in some carrageenan treated animals,

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1 but their growth and health were unaffected.

2 Six, a minor incidence of glucosuria in  
3 a few animals was noted, but did not affect blood  
4 glucose, which was normal. There were no other  
5 hematology findings and no effects on the kidneys.  
6 Seven, a reporting of decreased rectal organ waste  
7 in the male animals at the high dose only was not  
8 considered due to treatment. The reason being,  
9 there was no rectal abnormal histopathology  
10 associated with the rectal organ, the effects were  
11 not seen in female animals, and there were no  
12 changes to any other part of the gastrointestinal  
13 tract. Next slide.

14 Eight, the body weights of the piglets  
15 reflect growth during the study for all dose groups  
16 and were typical for farm feed pigs of the same age.  
17 It is not true that the animals started at a later  
18 age than 48 hours. Nine, thorough evaluation of  
19 all gastrointestinal --

20 (Telephonic interference)

21 DR. WEINER: -- by trained veterinary  
22 pathologists found no treatment related lesions,

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1 including inflammation. And, ten, the study was  
2 conducted during the pre-weaning period of  
3 piglets, which is 28 days. After that time,  
4 piglets begin eating solid food. So the entire  
5 pre-weaning period was covered. Longer term data  
6 are available in adult animals and different  
7 species. Next slide.

8 CHAIR FAVRE: Dr. Weiner, I'm sorry,  
9 we've hit the deadline for time.

10 DR. WEINER: Okay. Thank you.

11 CHAIR FAVRE: Thank you. Does anybody  
12 have any questions for Dr. Weiner? Yes, Zea, go  
13 ahead.

14 MEMBER SONNABEND: Thank you. Thank  
15 you, Dr. Weiner, for directly addressing some of  
16 the critiques of your study, which is of course  
17 confusing to us when we get so much comment on both  
18 sides of the issue. I'm interested in your  
19 thoughts about the validity of the studies that  
20 involve in vitro techniques and/or water  
21 introduction of carrageenan into the diet. And  
22 the comments that pigs or rats or other animals are

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1 not sufficiently comparable to humans, compared  
2 to, say, monkeys.

3 DR. WEINER: Yes. I'll be happy to  
4 address those points. Basic to understanding  
5 carrageenan is that it is a very large molecule with  
6 regulatory specifications and typical use would be  
7 greater than 100,000 daltons. It has many  
8 charged sulfate groups, which interact with both  
9 the positive charge groups of proteins and also  
10 cations. And so, a complex of protein in food and  
11 carrageenan forms, which goes through the  
12 gastrointestinal tract as a very large complex and  
13 is excreted unchanged.

14 If carrageenan is given in drinking  
15 water without protein, the charge groups on the  
16 sulfates of carrageenan do not have the opportunity  
17 to be complex in a matrix with protein. Therefore,  
18 those groups can interact with the gut mucosa. And  
19 it is not considered relevant to the food use. So,  
20 drinking water studies are different than the food  
21 use. In vitro, the media in which the cells are  
22 grown contains serum proteins. It's necessary for

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1 the survival of the cells in vitro and when  
2 carrageenan is added to an in vitro media, it will  
3 complex the protein and, therefore, not be  
4 available to interact directly with the cells or  
5 to be absorbed by the cells.

6 These factors have been published in my  
7 recent paper in 2016, Pitfalls and Parameters to  
8 the Conduct of Food Additive Research, Carrageenan  
9 as a Case Study. And the aspects of the in vitro  
10 system is different from the in vivo system, and  
11 some of the important features to be aware of when  
12 extrapolating from in vitro to in vivo are  
13 discussed by Dr. James McKim in his review article  
14 in 2014 and also shown in some recent SOT abstracts  
15 in 2016.

16 As far as animal species, most animals  
17 do not absorb carrageenan because it's too large,  
18 particularly when it's complexed to protein.  
19 These models have all been verified, many of them  
20 through the OECD standard guidelines, for example  
21 the 90 day study, which is a workhorse for  
22 toxicology, and I've published a 90 days study

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1 giving carrageenan in diet at the maximum levels  
2 without seeing any effects. So the animal models  
3 are all robust. Pigs in particular are used very  
4 frequently in research because they resemble human  
5 physiology for many organ systems, including the  
6 gastrointestinal tract, the immune system, as well  
7 as the dermal toxicology. You will find many  
8 references to the use of the pig.

9 CHAIR FAVRE: Okay. Thank you, Dr.  
10 Weiner. I have one more question. Harold, if we  
11 can make it a brief question, and, Dr. Weiner, if  
12 we can be mindful of the time on your response?  
13 Thank you.

14 DR. WEINER: Yes.

15 MEMBER AUSTIN: Thanks, Tracy. Dr.  
16 Weiner, I asked this question before, but I think  
17 you could probably give us the answer. Could you  
18 briefly explain the differences between poligeenan  
19 and carrageenan?

20 DR. WEINER: Yes. Poligeenan is not a  
21 food additive, it's not a natural product, it is  
22 created artificially by treating carrageenan at

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1 extreme conditions involving acid hydrolysis at  
2 very low pH, typically around pH 1, and high  
3 temperatures greater than 80 degrees Centigrade  
4 for several hours. The molecular weight of  
5 poligeenan is 10,000 to 20,000 daltons. And at  
6 that low molecular weight, it is nonfunctional in  
7 food. If poligeenan is given directly to animals  
8 at high doses, you will start to see toxicological  
9 effects. But it is a totally different chemical  
10 from carrageenan.

11 Carrageenan is a high molecular weight  
12 additive made from seaweed with an average  
13 molecular weight of 200,000 to 800,000  
14 kilodaltons. It's derived directly from seaweed  
15 under mild conditions involving washing and  
16 cleaning. And because of the high molecular  
17 weight, it does have functionality when added to  
18 food, as I explained earlier, because it complexes  
19 to proteins in the food giving them stability and  
20 functionality in the various products in which it's  
21 used. The poligeenan is not found in commercial  
22 carrageenan.

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1                   And carrageenan is not degraded in the  
2 gastrointestinal tract to poligeenan.  
3 Carrageenan is polydispersed and has a broad band  
4 of molecular weight distribution because it's made  
5 from seaweed naturally. But poligeenan as defined  
6 and explained is not found in carrageenan.

7                   CHAIR FAVRE: Great.

8                   MEMBER AUSTIN: Thank you.

9                   CHAIR FAVRE: Thank you very much.

10                  DR. WEINER: You're welcome.

11                  CHAIR FAVRE: Thank you, Dr. Weiner. We  
12 appreciate you being with us today and thank you  
13 for the presentation. Next up is Shakeel Rehman  
14 with Esteban Macias, if I'm pronouncing that  
15 correctly, on deck.

16                  MR. REHMAN: Dr. Weiner talked about the  
17 safety of carrageenan and I am an end user, even  
18 though I am not a toxicological scientist, I am  
19 basically a basic dairy scientist. So we have been  
20 using carrageenan for a long time. And thank you  
21 for providing me this opportunity to talk about  
22 carrageenan. I will emphasize about the use of

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1 carrageenan. And carrageenan has generally long  
2 history of use in foods, supplemented by credible  
3 science. So that would make continued listing of  
4 carrageenan as an approved nonsynthetic additive  
5 an easy decision.

6 And the credible science supporting  
7 carrageenan's safety argues for continued use in  
8 organic products. If you see, regulatory  
9 authorities in every region of the world, including  
10 United States, Europe, China, Japan, and Brazil  
11 have found carrageenan safe for use in food. It  
12 is in seaweeds which have been harvested and used  
13 as food for century. Carrageenan is a natural  
14 polysaccharide and is not assimilated by the human  
15 body, as Dr. Weiner was just telling just now.  
16 Carrageenan provide a huge unique functional  
17 characters used to gel, thicken, and stabilize food  
18 production.

19 While we are having some online  
20 conversations about the safety of carrageenan, but  
21 there is no conclusive scientific evidence about  
22 any potentially hazards stemming from the use of

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1 carrageenan as a food additive. Put simply,  
2 carrageenan has undergone total review by World  
3 Health Organization Joint Expert Committee on Food  
4 Additives. The JECFA review covered both  
5 supporting and opposing science and found  
6 carrageenan to be not of concern in an infant  
7 formula. If carrageenan is considered safe even  
8 for the most sensitive members of our population,  
9 then there should not be any doubt that it is safe  
10 for other consumers.

11 Now, as an end user, why we should use  
12 it. Carrageenan should continue to be on the  
13 approved food ingredient list. This is based on  
14 necessity, scientific evidence, and  
15 sustainability of the ingredient. The removal of  
16 carrageenan from the list of approved ingredients  
17 for organic foods would possibly lead consumers to  
18 question the validity of otherwise a very safe food  
19 ingredient. Removal should be based on scientific  
20 basis rather than myths and rumors.

21 And carrageenan is a hydrocolloid that  
22 at very low levels provided necessary mouth feel,

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1 stability, and sustainability. We use  
2 carrageenan in our dairy beverages and our  
3 experience is that carrageenan works the best among  
4 hydrocolloids. Carrageenan is especially  
5 important in the suspension of cocoa particles and  
6 product stability, long shelf life chocolate milk  
7 beverages.

8 To replace functionality of  
9 carrageenan, it would take combination of two or  
10 three other hydrocolloids and at higher percentage  
11 levels. The ability to limit the number of  
12 ingredients on the label not only allows for  
13 simpler processing, but it keeps sourcing and  
14 production costs at minimum, ensuring affordable  
15 nutritional options for a greater number of people  
16 around the world. Replacing carrageenan with  
17 other hydrocolloids would be very expensive.

18 While carrageenan performs unique and  
19 essential functionality in various applications,  
20 it is the sourcing and processing of the ingredient  
21 that makes it fundamental to organic milk  
22 beverages. Carrageenan is readily available from

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1 sustainable sources. Further, carrageenan  
2 replaces animal parts in formulations, allowing  
3 more organic other than milk beverages to satisfy  
4 vegan, Kosher, and Halal requirements.  
5 Carrageenan has been used as a sustainable food  
6 stabilizer by cultures around the world for  
7 centuries. Today it is sustainably harvested in  
8 parts of Africa and Asia by nearly 30,000 to 60,000  
9 members.

10 In summary, I support the continued  
11 approval of carrageenan use in organic foods by  
12 NOSB. It is indispensable ingredient in dairy  
13 beverage formulation as it is cost effective and  
14 enables functionality that's not provided by other  
15 stabilizing products that are suitable for and  
16 available to wide range of people. Thank you very  
17 much.

18 CHAIR FAVRE: Great. Thank you,  
19 Shakeel. Any questions for Shakeel? Okay, I  
20 don't see any. Thank you very much.

21 MR. REHMAN: Thank you.

22 CHAIR FAVRE: Next up is Esteban Macias,

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1 followed by William Matakas on deck. Esteban, are  
2 you with us?

3 MR. MACIAS: Yes, good afternoon. Can  
4 you hear me well?

5 CHAIR FAVRE: Yes, we can. Please go  
6 ahead.

7 MR. MACIAS: Perfect. Thank you very  
8 much. And good afternoon to everyone. I am  
9 calling you from all the way South Central Mexico.  
10 I'd like to introduce myself. I'm Esteban Macias,  
11 I'm the head of the Department of Crop Protection  
12 for the GRUPO U, it's a company that is dedicated  
13 for production of vegetables, that are mainly  
14 exported to the United States, Canada, and also  
15 being consumed here in Central Mexico. Can I have  
16 next slide please? Okay. Thank you.

17 So that's me, actually, holding a nice  
18 organic lettuce. We grow several acres of both  
19 conventional and organic crops. At this point, we  
20 started growing organics in 2004 and we started  
21 with candidates. To this point, 12 years later,  
22 we are doing 500 acres of organic growing,

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1 including about 49, 50 acres of greenhouse. My  
2 presentation today is regarding some confusion I  
3 think there may be regarding the use of soilless and  
4 containerized techniques for organic production in  
5 greenhouses. Next slide please. Okay.

6 So, we started with our greenhouse  
7 operation in 2005 and I can tell you we started all  
8 the way from scratch. We didn't want to be just  
9 another tomato grower, since we started into  
10 organic production and we started into greenhouse  
11 production, then we said, well, why not become  
12 greenhouse organic growers. Next slide please.  
13 So, you will be able to -- we asked, well, why  
14 organic? And that's because consumers were  
15 demanding pesticide-free fresh produce. And  
16 organic certification does communicate that  
17 condition to the consumer.

18 We also wanted to challenge our  
19 conventional practices. Everything we are doing  
20 organic, it's immediately transferred to the  
21 conventional, so our conventional is what I call  
22 a dirational system, which is actually using a lot

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1 of organic techniques. Of course, we have our pure  
2 organic production. Next slide please. So this  
3 is how it looks on the beginning. This is the box,  
4 this in the back, that is filled with coconut core,  
5 a mixture of compost, and nutrients that are  
6 organically allowed, fish meal, chicken manure.  
7 We also look at this with about 30 different strains  
8 of beneficial bacteria and fungi. So we actually  
9 turn this coconut core into living soil, maybe it  
10 was a living soil that we started growing on it.  
11 Next slide please.

12 So, we eventually learned a lot about  
13 what we were doing and we learned that disease  
14 management was a must. It's very hard to handle  
15 diseases when you're actually in the soil. In the  
16 next slide, we will see some plants that actually  
17 were killed by disease. We also are dealing with  
18 the conditions of semi-desert like area. We have  
19 very little water, so we are able to reclaim all  
20 the water, but if -- actually we have to do a little  
21 bit of over irrigation to wash down salts and we  
22 also saw the efficiency of nutrient use. Next

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1 slide please.

2 So that's the way our organic solution  
3 looks right now. And you can see the bags and the  
4 channels we use for reclaiming that water. Next  
5 slide please. And it is challenging, so by working  
6 this way, we've been able to be very efficient in  
7 the nutrition of the plants, otherwise will be a  
8 lot of waste into the underground because it's  
9 littered by water. Next slide please. And this  
10 is a better sample of why we like to do it on  
11 containers. If you get a disease and you have in  
12 containers, you are able to contain that disease.  
13 If you are on soil, that will spread all over and  
14 lose the installation. So that's why we are still  
15 working on that. Next slide please.

16 So that's a recent picture, so if we  
17 suspect a diseased plant, we just pull it out and  
18 sanitize the tub with some approved material and  
19 then move on and people are working with the other  
20 plants healthy. Next slide please. Next slide  
21 please. That's the way it look on the outside. We  
22 are reclaiming every drop of water that is falling

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1 on top of the greenhouse and also the water that  
2 is coming from the greenhouse is being captured and  
3 used for irrigation. Next slide please.

4 So, we are not actually working on that  
5 system, this is a very leading invested system, but  
6 it is all the time depending on bioactivity in order  
7 to feed the plant. Next slide please. So you can  
8 see, that's our leading site. You can see the  
9 core, you can see the gypsum we applied there, you  
10 can see all that green material there, it is  
11 growing, you can see some chicken manure on front  
12 there. So that's a burden on the system.

13 CHAIR FAVRE: Excuse me, Esteban. I'm  
14 sorry, I didn't hear the signal and I bet you  
15 probably didn't either. So, we're going to have  
16 to cut you off there, I apologize.

17 MR. MACIAS: All right. No problem.  
18 So that was my comment. Thank you very much for  
19 listening and for giving me the opportunity to show  
20 you --

21 CHAIR FAVRE: Great.

22 MR. MACIAS: -- what we are doing.

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1 CHAIR FAVRE: Great. Thank you.  
2 Anybody have any questions for Esteban? Okay.  
3 Thank you very much for coming and --

4 MR. MACIAS: Thank you all.

5 CHAIR FAVRE: -- thank you for the  
6 presentation. Next up --

7 MR. MACIAS: Thank you.

8 CHAIR FAVRE: -- is William Matakas and  
9 then we have Megan Parker on deck. William, are  
10 you with us?

11 MR. MATAKAS: Yes. Yes, I'm here. Can  
12 you hear me?

13 CHAIR FAVRE: Yes, we can. Please go  
14 ahead.

15 MR. MATAKAS: Great. So, yes, thank you  
16 very much for allowing me this time. And I am  
17 William Matakas. I am the manager of marketing and  
18 technology at FMC in our health and nutrition  
19 business. Formerly, I was also the Marinalg  
20 president for the carrageenan industry. So, I'd  
21 like to talk about essentiality today for  
22 carrageenan. Next slide please. And the first

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1 thing about carrageenan is that it's used at a very  
2 low level compared to many other things that could  
3 be used in foods.

4 Secondly, it has many suppliers, it  
5 provides a very dynamic market, a lot of  
6 opportunities to buy the products. And with the  
7 large number of suppliers, really minimizes the  
8 chances of shortage except in real extreme cases  
9 that happened for odd weather conditions, but it's  
10 very rare that there are shortages. Next slide  
11 please. There is a long history of manufacturing,  
12 so it's a well known process. And there are no real  
13 patents on the carrageenan process so that  
14 manufacturers are free to come and go in the  
15 industry and continue to provide the product to the  
16 users.

17 The other thing that carrageenan does  
18 that is unique in that it has a very broad  
19 functionality that no other single additive could  
20 provide. It is one of the unique hydrocolloids  
21 that can provide a very broad range of viscosities  
22 for products, textures, stability, all derived

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1 with one product on the label in a time when you  
2 want to have fewer products on our labels. Next  
3 slide please.

4 Carrageenan is one of the few  
5 hydrocolloids that is derived from plants and its  
6 production and raw materials conserve resources in  
7 food production, it doesn't use fresh water, it  
8 doesn't use arable land. Seaweed is produced by  
9 small holder farms across the world in areas and  
10 it is a pathway out of poverty for them. It is not  
11 a genetically modified organism and farmers may  
12 gather the seed stock from nature or save stock as  
13 they produce product for each growing cycle. Next  
14 slide please.

15 When we're looking for a product where  
16 fewer is better on the label, having something very  
17 flexible to respond to changes in what people want  
18 or changes in texture, when having something  
19 sustainable is better, when wanting something in  
20 our food at lower use levels is better, when looking  
21 at the provenance of our food really matters, and  
22 when safety matters, we really believe that

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1 carrageenan is essential for products for  
2 producers. And that's my last slide. Any  
3 questions?

4 CHAIR FAVRE: Okay, great. Thank you  
5 very much. Any questions for Mr. Matakas?

6 MS. TUCKER: Looks like Tom does, Tom  
7 Chapman.

8 CHAIR FAVRE: Yes. Thank you, Tom. Go  
9 ahead.

10 MEMBER CHAPMAN: I have a couple  
11 questions. I hope they're quick, if they're not  
12 quick, I'll just limit them. So despite being  
13 classified as a non-agricultural substance, from  
14 information in our TR it does appear that it's  
15 possible to produce carrageenan organically, if  
16 the seaweed itself was certified organic. Has FMC  
17 explored producing carrageenan organically at all?

18 MR. MATAKAS: The first step was the  
19 seaweed being classified organic and we've been  
20 waiting to have discussions around organic  
21 aquiculture and those rules to be finalized.

22 MEMBER CHAPMAN: Okay. There are

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1 currently some organic seaweed products on the  
2 marketplace, I just want to point that out to you.  
3 So, second question, and that's, what cases would  
4 carrageenan not appear on a food label of a product?  
5 And I'm looking at food, alcohol, and personal  
6 care.

7 MR. MATAKAS: It should be on all labels.  
8 It's an ingredient.

9 MEMBER CHAPMAN: If it's used as a  
10 clarifier for your production, they would appear  
11 on the label?

12 MR. MATAKAS: You mean if it were a  
13 processing aid, where it doesn't go into the  
14 product, maybe? I mean, I guess, I'm confused --

15 MEMBER CHAPMAN: Okay. Classic  
16 applications in food, alcohol, and personal care.

17 MR. MATAKAS: I mean, if it is in the  
18 final product, then I guess it would have to be on  
19 the label by law. So, I don't know why it wouldn't  
20 be on the label, would be my question. We process  
21 it as an ingredient, it's an approved additive, so  
22 under those rules, it would be on the label, as far

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1 as we know.

2 MEMBER CHAPMAN: Thank you.

3 MR. MATAKAS: Okay.

4 CHAIR FAVRE: Okay. Thank you,  
5 William, very much for your --

6 MR. MATAKAS: Okay.

7 CHAIR FAVRE: -- presentation today.  
8 Next up on our list is Megan Parker, but we haven't  
9 been able to locate her. Megan, if you're out  
10 there, we're going to move you to the end of the  
11 list and we'll try to get to you at that time.

12 MS. TUCKER: But please chat us with a  
13 phone number. If you are online and you can hear  
14 us, we need to know who to unmute, so send us your  
15 area code and phone number from which you are  
16 calling so we know who to unmute.

17 CHAIR FAVRE: Yes, thank you. Okay.  
18 So that moves us to Zen Honeycutt, with Colehour  
19 Bondera on deck. Jenny, have we been able to  
20 unmute Zen?

21 MS. TUCKER: We think so. Zen, are you  
22 there?

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1 CHAIR FAVRE: Zen, are you there? We  
2 can't hear you.

3 MS. TUCKER: Zen, you just muted  
4 yourself. I'm going to unmute you, try again.  
5 No, don't touch the phone, just start -- just a sec.  
6 Okay. Zen, just -- okay. Zen, just start  
7 talking, don't touch the phone, just start talking.

8 CHAIR FAVRE: Okay. Zen, are you there?

9 MS. TUCKER: Zen, if you're there, try  
10 talking.

11 MS. HONEYCUTT: Can you hear me now?

12 MS. TUCKER: Yes.

13 CHAIR FAVRE: Yes, we can.

14 MS. HONEYCUTT: Okay, great.

15 CHAIR FAVRE: Go ahead.

16 MS. HONEYCUTT: Thank you. Sorry about  
17 that. Okay. So I want to say thank you to the  
18 distinguished National Organic Standards Board of  
19 Directors, thank you for the opportunity to speak.  
20 Moms Across America is speaking out for organic  
21 standards because food is the number one factor in  
22 health. Do you have my presentation in front of

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1 you?

2 CHAIR FAVRE: Yes. Just let me note for  
3 the audience that we do have a presentation for Zen  
4 and it's now showing up on the webinar screen. Go  
5 ahead.

6 MS. HONEYCUTT: Okay, great. Food is  
7 the number one factor in health and many of our  
8 children require organic food to have good health  
9 and, in many cases, to live. The contamination of  
10 organic by toxic chemicals violates our right to  
11 health and threatens our children's lives. So, we  
12 must be able to trust that organic is truly organic.  
13 We want carrageenan, an unnecessary chemical,  
14 removed from the allowable list and for the NOSB  
15 to take steps in a coalition to product organic from  
16 glyphosate and other toxic chemicals. We have --  
17 slide.

18 We have Jennifer Lawrence in here who  
19 says that, I had an awesome team of doctors at a  
20 children's hospital that could not figure out what  
21 was wrong with my daughter, who was getting sick  
22 after nearly every meal. The moms posting on

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1 Facebook that their children got better when they  
2 got off GMOs saved my daughter's life. That day,  
3 I went out and bought organic food and she stopped  
4 throwing up.

5 So, we see that our children get better  
6 when they avoid GMOs and toxic chemicals and eat  
7 organic, however, some of our children are still  
8 experiencing inflammation and rashes, even when  
9 they eat organic. And this inflammation can lead  
10 to cancer. And we see this as -- slide -- our  
11 families are the sickest in the developed world and  
12 our babies and even our men are dying at much higher  
13 rates than other countries. And we believe that  
14 the widespread use and contamination of glyphosate  
15 is a major contributing factor. Slide.

16 Widespread use of glyphosate on  
17 streets, backyards, trees, and food has made this  
18 chemical ubiquitous. Slide. Ib Pedersen, farmer  
19 from Denmark, says that roundup and glyphosate is  
20 contaminating our food supply through the  
21 irrigation system, through the rain, through the  
22 animal products such as manure, and through

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1 chemical drift. Now, if glyphosate is found in  
2 organic farms, we request that the owner to report  
3 occurrences in a private manner and that the NOSB  
4 or governmental agencies take on the  
5 responsibility of holding neighboring farms who  
6 are contaminating for cleanup. Holding them  
7 responsible.

8 We request that the NOSB take on  
9 leadership to instigate legal action with other  
10 environmental groups as necessary so that organic  
11 farmers are not penalized or suffer losses as these  
12 contaminations are not their intention and they are  
13 victims of a toxic system. We are extremely  
14 concerned about the widespread contamination of  
15 glyphosate. Slide. The glyphosate has  
16 contaminated our tap water, our urine, and even our  
17 breast milk. Slide. It's also contaminated our  
18 cereal, bread, honey, cotton products, beer, and  
19 wine. Slide. Including PediaSure feeding tube  
20 liquid, which was given to children with cancer.

21 We want it on the record that consumers  
22 do not want any tolerance level to be set for

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1 glyphosate or any other toxic chemicals such as  
2 Atrazine, 2,4-D, Paraquat and other toxic  
3 chemicals in organic food at all. Slide. We see  
4 collateral damage of glyphosate, which is harming  
5 millions and millions, hundreds of millions of  
6 Americans, and I can give you this data later. So,  
7 slide.

8 We request the actions to take are that  
9 the NOSB is vocal and takes action to revoke the  
10 license of glyphosate and toxic chemicals that are  
11 used on chemical farms, including non-organic. We  
12 request that NOSB policy to disallow the  
13 contamination of organic fertilizer by toxic  
14 chemicals and GMOs and that manure from animals fed  
15 GMO feed is not allowed in organic -- I'm sorry,  
16 I didn't say slide -- in organic fertilizer. And  
17 then, slide.

18 We understand that some of these  
19 actions are not in the scope of what NOSB addresses,  
20 however, we assert that in these times, we must all  
21 go beyond what we are expected to do. We ask that  
22 you take these steps to address the contamination

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1 of glyphosate, disallow carrageenan and toxins,  
2 and protect organic standards, thereby protecting  
3 the health of current and future generations. We  
4 want to say thank you so much for your time and  
5 attention.

6 CHAIR FAVRE: Great. Thank you very  
7 much, Zen. Anybody have questions for Zen? Okay,  
8 I don't see any. Thank you very much for your  
9 presentation, Zen.

10 MS. HONEYCUTT: Thank you.

11 CHAIR FAVRE: Next up is Colehour  
12 Bondera and then following Colehour will be  
13 Katherine DiMatteo. Colehour, are you with us?

14 MR. BONDERA: Yes, can you hear me?

15 CHAIR FAVRE: Yes, we can. Nice to hear  
16 your voice. Please go ahead.

17 MR. BONDERA: Great, thank you. Okay.  
18 Aloha to Chair Tracy and to all NOSB members. Your  
19 time and consideration are really appreciated.  
20 Thank you really for your dedication to maintaining  
21 organic integrity. And my name, like I was  
22 introduced, is Colehour Bondera, I'm a small scale

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1 organic farmer. I'm a former NOSB member, my term  
2 ended January of 2016. The processes of your  
3 consideration and decision making are well  
4 understood through those experiences. Following  
5 the guidance of NOSB Chair Emeritus Barry Flamm,  
6 for two years it was my pleasure to work with and  
7 serve the NOSB as the Policy Development  
8 Subcommittee Chair.

9 Integrity of the process to maintain  
10 organic standards in a healthy and transparent  
11 manner is the common thread that holds us all  
12 together. We must start with the basics of a  
13 healthy process and internal policies and  
14 procedures of decision making. So those are rules  
15 that we can all follow together and not simply  
16 change as individuals prefer. Remember that NOSB  
17 is a public advisory board, and that means you all  
18 are listening to input from people such as myself,  
19 the public, to make well informed and balanced  
20 decisions.

21 That said, as stated in my written  
22 testimony, it is with severe concern that the NOSB

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1 is now considering voting through the changes as  
2 presented to the PPM without full consideration and  
3 review. If a subject merits scheduled  
4 consideration and review on a Subcommittee call  
5 and/or inclusion on the spreadsheet of items as was  
6 prepared, then like in all of the NOSB  
7 Subcommittees, it is with due diligence that said  
8 item, after consideration by the Subcommittee, is  
9 then seriously considered by the full NOSB. The  
10 Subcommittee is simply making a suggestion to the  
11 Board and each material determination is due its  
12 place for review and inclusion, which in the past  
13 has meant a vote, which is how the PDS has behaved  
14 in terms of items to be added or modified within  
15 the policy and procedure manual.

16 As the former chair of the PDS, it was  
17 quite disturbing when the NOP put forth that they  
18 should somehow be the ones to review and change our  
19 guiding internal document, policy and procedure  
20 manual, which some call the NOSB Bible, not at our  
21 request, but rather because it was not seen as being  
22 maintained in a needed manner. For your

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1 information, the first round of such concessions  
2 ended up with a compromise, that there should be  
3 two categories of changes and implementation  
4 thereof. First would be administrative changes  
5 and second would be to identify significant areas  
6 of modification or addition and have those put  
7 forth as sub-groups or individually so they could  
8 be seriously and completely reviewed and  
9 considered.

10 Then, the NOP decided that the PDS would  
11 cease to function as a standing Subcommittee and  
12 instead was relegated as ad hoc. When that was  
13 again changed by the NOP, and this was over several  
14 years, the previous agreement was put aside and new  
15 NOSB members took on working with the NOP on how  
16 to update the PPM. The agreement to separate the  
17 administrative updates from content changes was  
18 dismissed without further discussion, and the NOP  
19 decided to rewrite our Bible to meet their  
20 priorities and interpretation.

21 Again, the NOSB should be proposing  
22 changes to the PPM, not reviewing what changes the

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1 NOP staff made and then justifying those changes.  
2 NOSB is an advisory board, not a reaction to NOP  
3 Subcommittee. Some significant areas, and by no  
4 means all, from my perspective include the  
5 rewritten NOSB/NOP collaboration section, the  
6 required NOP hiring of a staff director, clarity  
7 of NOSB rules and changes to the PPM and the  
8 establishment of internal procedures, changes to  
9 minority report section, the sunset review  
10 process, and the manner in which presence at a  
11 meeting is defined and justified.

12 We are now at a place where bundling of  
13 changes and automatic acceptance of new choices is  
14 simply carried forth as if the only role of NOSB  
15 is rubber stamping what is ordered and not what is  
16 healthiest for all. Many items must be completely  
17 reviewed and each must be voted upon separately,  
18 or at minimum, discussed within the NOSB as a whole.  
19 Significant detail and analysis concluded for many  
20 items, again, not necessarily all, and the written  
21 testimony of groups that -- I've reviewed some of  
22 it, from Beyond Pesticides and Cornucopia, there's

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1 others as well, representing many thousands of  
2 members, which merit both consideration -- I have  
3 one more sentence.

4 Please send or take this revised PPM  
5 back to the Policy Development Subcommittee for  
6 further efforts to support the document, which  
7 deserves a vote and likely does not include all of  
8 the other pieces that must be considered  
9 independently. And it's set up so that those  
10 pieces at minimum could be voted upon prior to the  
11 whole being approved. Those are my comments.  
12 Thank you for listening.

13 CHAIR FAVRE: Great. Thank you,  
14 Colehour. Anybody have any questions for  
15 Colehour?

16 MEMBER CHAPMAN: This is Tom, I do.

17 CHAIR FAVRE: Okay. Go ahead, Tom.

18 MEMBER CHAPMAN: Aloha, Colehour, great  
19 to hear --

20 MR. BONDERA: Aloha.

21 MEMBER CHAPMAN: -- your voice again and

22 --

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1 MR. BONDERA: Good to be here.

2 MEMBER CHAPMAN: -- receive your  
3 comments. I'm a little surprised you chose the  
4 webinar format because, as you're probably aware,  
5 the current outdated PPM states full Board  
6 conference calls or full Board summits via  
7 electronic bulletin board are not permitted. But,  
8 all the same, I am happy to get your feedback and  
9 wanted to address the section about the NOP  
10 involvement and PPM approval that you just raised.  
11 Are you aware of sections of OFPA that specifically  
12 talk about the agency's ability to set or approve  
13 procedures?

14 MR. BONDERA: I'm not going to be able  
15 to cite or quote something, but, yes, generally  
16 speaking.

17 MEMBER CHAPMAN: Okay.

18 MR. BONDERA: You're saying, I'm sorry,  
19 am I familiar with or am I aware that it says that  
20 NOP has to basically, it has to be approved by?

21 MEMBER CHAPMAN: I'm asking you what  
22 your interpretation of what it says in OFPA, from

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1 your extensive experience in this area.

2 MR. BONDERA: Yes. Unfortunately, I  
3 cannot right off the cuff, sorry. But I do  
4 acknowledge that what we put forth does have to be  
5 reviewed and approved, but that's different than,  
6 like I said, it's different than us reacting to  
7 something else that NOSB is being told. It's two  
8 different paths, maybe to the same end, but it's  
9 a different strategy.

10 MEMBER CHAPMAN: Excellent. If I'm  
11 understanding your comments right, you do believe  
12 that the NOP needs to approve the PPM?

13 MR. BONDERA: Absolutely.

14 MEMBER CHAPMAN: Great. Thank you,  
15 Colehour.

16 MR. BONDERA: Yes.

17 CHAIR FAVRE: Any other questions for  
18 Colehour? Okay. Thank you, Colehour. We  
19 appreciate you joining us today.

20 MR. BONDERA: Thank you. Aloha.

21 CHAIR FAVRE: Aloha. Next up is  
22 Katherine DiMatteo and then we've got Steve Etko

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1 on deck. Katherine, are you there?

2 MS. DiMATTEO: I am here. Can you hear  
3 me?

4 CHAIR FAVRE: Yes, we can. Please go  
5 ahead. Thank you.

6 MS. DiMATTEO: All right. Thank you.  
7 As introduced, my name is Katherine DiMatteo. I'm  
8 a partner in a consulting firm, Wolf, DiMatteo +  
9 Associates, who have been providing advice and  
10 service to the organic sector for over 25 years.  
11 Thank you for the opportunity to comment, for  
12 setting up these webinars that allow more  
13 participation in the NOSB process, and for your  
14 dedicated work as volunteers to maintain the  
15 integrity of the organic sector and encourage its  
16 growth and continuous improvement. My comments  
17 today reflect what has been stated in our submitted  
18 comments to the Crop Subcommittee via  
19 regulations.gov.

20 First, EPA List 4 on NPEs. We  
21 appreciate that the Subcommittee has made it clear  
22 that inert ingredients in the category of NPEs will

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1 not be allowed and that input companies should work  
2 to phase out their use. We ask that the NOSB and  
3 the NOP allow input companies sufficient time to  
4 reformulate effective products without NPEs. The  
5 Subcommittee has suggested a three to four year  
6 time line from the publication of the discussion  
7 document. We ask that the time frame be set at  
8 three years from the publication of the final rule  
9 for inert ingredients on the SCIL, that's the crop  
10 and ingredient list from Safer Choice, not from the  
11 publication of this discussion paper.

12 We encourage the inerts working group  
13 to focus its resources on moving quickly to publish  
14 information on how the NOP compliant inert  
15 ingredients will be identified on the Safer Choice  
16 Ingredients List and how NOP criteria for inert  
17 ingredients will be assessed when a new inert  
18 ingredient is submitted to be included on the Safer  
19 Choice list.

20 Biodegradable mulch film, we urgently  
21 request that currently available biodegradable  
22 mulch films which meet the national list criteria

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1 and definitions in the NOP regulation be allowed  
2 for use immediately. To accomplish this, the NOP  
3 Policy Memo 15-1 will need to be corrected to match  
4 the actual language of the regulation. Another  
5 growing season will pass without farmers having  
6 access to this type of mulch film because of the  
7 delay in the recommendation from the NOSB  
8 concerning changes to the NOP Policy Memo.

9 Our understanding of the NOSB  
10 discussions and vote to add biodegradable mulch to  
11 the national list was that bio-based content would  
12 be required and the contents would be tested and  
13 reported, but no minimum content would be required.  
14 However, the NOP Policy Memo restricted  
15 biodegradable mulches to only those that are 100  
16 percent bio-based. There are no 100 percent  
17 bio-based biodegradable agricultural mulches  
18 available today, nor are there any expected in the  
19 near future.

20 The original petition for  
21 biodegradable mulch film, the supporting document,  
22 the independent technical review, all indicated

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1 that some petroleum products are part of the  
2 production process. In fact, many materials on  
3 the national list of allowed synthetics are derived  
4 from petroleum products and the biodegradable  
5 mulch film should not be treated differently.

6 Natural sodium nitrate, according to  
7 the recommendation of the NOSB, the annotation for  
8 the use of sodium nitrate was to sunset in October  
9 of 2012, but there has not been any rulemaking to  
10 this effect. We urge the NOSB to request that a  
11 proposed and final rule that reflects their  
12 decision of 2011 be published prior to October  
13 2017, the sunset date for the sodium nitrate. The  
14 silent allowance of sodium nitrate that exists  
15 right now has caused an unfair situation and  
16 competitive disadvantage for the input companies  
17 and the growers who are honoring the April 2011  
18 recommendation vote of the NOSB to prohibit its  
19 use. Thank you.

20 CHAIR FAVRE: Great. Thank you very  
21 much, Katherine. Zea, I see you had a question?

22 MEMBER SONNABEND: Yes. Hi, Katherine.

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1 MS. DiMATTEO: Hi, Zea.

2 MEMBER SONNABEND: In regards to sodium  
3 nitrate, you're suggesting we pass a new  
4 recommendation to supplement the one that we've  
5 already passed?

6 MS. DiMATTEO: Either a new  
7 recommendation, if that's the proper procedure, or  
8 at least a message to the NOP that they should put  
9 out a proposed and final rule based on the 2011  
10 decision.

11 MEMBER SONNABEND: Yes, because it's a  
12 very awkward situation since we weren't even  
13 allowed to consider it in sunset, even though it  
14 still is technically on the national list. So, I  
15 do feel like our hands are somewhat tied. But --

16 MS. DiMATTEO: Yes. Well --

17 MEMBER SONNABEND: -- we'll look.

18 MS. DiMATTEO: I can appreciate that,  
19 but, as you may know, the people, farmers, input  
20 supply companies, they're using sodium nitrate  
21 either at way more than 20 percent, which is what's  
22 currently still on the national list, and it's all

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1 over the place right now. There's no consistency  
2 at all in what's happening.

3 MEMBER SONNABEND: Yes.

4 MS. DiMATTEO: And I guess maybe my  
5 message is more for the NOP than for the NOSB, but  
6 if the NOSB can urge in some way that their 2011  
7 decision be acted upon, it would be very helpful  
8 to our organic community and to our international  
9 equivalency partners.

10 MEMBER SONNABEND: Thank you.

11 CHAIR FAVRE: Great. Thank you,  
12 Katherine. Anybody else have any questions for  
13 Katherine? Okay, I don't see any. Thanks again,  
14 Katherine.

15 MS. DiMATTEO: You're very welcome.  
16 Thank you all.

17 CHAIR FAVRE: Next up is Steve Etko and  
18 followed by Erik Gundersen on deck. Steve, are you  
19 with us?

20 MR. ETKA: I am. Can you hear me?

21 CHAIR FAVRE: Yes, we can. Please go  
22 ahead.

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1                   MR. ETKA: Great, thanks. My name is  
2 Steve Etkka. I'm policy director for the National  
3 Organic Coalition. Thanks for this opportunity to  
4 testify in advance of the NOSB meeting. I wanted  
5 to take a moment to highlight a few issues. One,  
6 NOC appreciates the Board's work to find a more  
7 workable solution to the imbalance in the sunset  
8 review workload. As you all have heard from us  
9 many times, the sunset review process as laid out  
10 in OFPA is a critical aspect of the integrity of  
11 the organic label and we will continue to insist  
12 on adherence to the letter and spirit of the sunset  
13 process.

14                   But there's no question that the  
15 workload has become unmanageable and unbalanced  
16 from a time perspective and we believe that  
17 rebalancing the list will result in higher quality  
18 reviews because you will have the time to give each  
19 material reviewed the necessary attention. But it  
20 will also improve public involvement we think,  
21 because by evening out the number of items for the  
22 public to comment on at any one time during a shared

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1 comment period, it gives the public more time to  
2 give it the time needed as well.

3 To be more specific, in terms of the  
4 concepts presented on this topic by the Policy  
5 Development Subcommittee, we believe that Option  
6 B is the option most in line with NOC thinking on  
7 this matter, because it groups similar materials  
8 together for review. This fosters a comparison of  
9 different materials used for similar purposes in  
10 a way that allows for better review of the necessity  
11 and essentiality criteria. In addition, in the  
12 case of materials that have uses in more than one  
13 type of operation, it allows for both uses to be  
14 analyzed in one TR, which of course would be more  
15 efficient.

16 The second issue I wanted to mention is  
17 the topic of the review of copper sulfate in rice  
18 production use. Some real concerns about the  
19 impact of the material on certain non-target  
20 aquatic life that actually have beneficial  
21 properties. For example, many of the affected  
22 non-target species feed on algae or prey on tadpole

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1 shrimp in the rice patties, which are of course the  
2 main reasons for using the material itself. So,  
3 from a systems approach perspective, harming the  
4 species that feed on algae and tadpole shrimp may  
5 be very counterproductive.

6 Having said that, we also recognize  
7 that copper sulfate has been used for centuries in  
8 agriculture and there are no good alternatives  
9 available right now for organic rice farmers.  
10 Which leads me to a common refrain that you've often  
11 heard from NOC in recent years, which is the  
12 importance of USDA research funding to the work  
13 that you all do on the NOSB. And we appreciate that  
14 the Board now regularly communicates with the USDA  
15 about unmet research needs that are critical to the  
16 work that you all do, including the need for more  
17 research into alternatives for copper sulfate.

18 And I believe USDA has heard these  
19 concerns in general because one of the stated  
20 focuses of the Organic Transition Program is to  
21 support research into alternatives for materials  
22 on the national list. And we appreciate that your

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1 current list includes alternatives to copper  
2 sulfate. So we're asking that the NOSB request a  
3 report on recent research of alternatives to copper  
4 sulfate use in rice production. If there is no  
5 satisfactory research on alternatives to copper  
6 sulfate, we believe a robust research strategy must  
7 be recommended by the NOSB to then appeal that  
8 funding is urgently needed to ensure that research  
9 is carried out.

10 Another issue of environmental concern  
11 to us is the use of cellulose from wood pulp for  
12 use in organic handling. We believe there may be  
13 more environmentally friendly materials, such as  
14 rice hulls, that have the anti-caking and  
15 filtration aid functions currently being provided  
16 by cellulose processed from wood pulp. And we  
17 believe the availability of alternatives to  
18 cellulose from wood pulp, such as rice hulls,  
19 should also be on the NOSB list of unmet research  
20 needs. Thanks for this opportunity to testify.  
21 Right on time.

22 CHAIR FAVRE: Good timing. Another

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1 reward sent to you via the phone. Thank you,  
2 Steve.

3 MR. ETKA: Okay.

4 CHAIR FAVRE: Anybody have questions for  
5 Steve? I'm not seeing any if there are some.  
6 Okay, it looks like, no. Thank you very much,  
7 Steve. We appreciate it.

8 MR. ETKA: All right. Thank you.

9 CHAIR FAVRE: Next up is Erik Gundersen,  
10 followed by Farley Baricuatro, if I said that  
11 correctly, on deck.

12 MR. GUNDERSEN: Can you hear me?

13 CHAIR FAVRE: Yes, is this Erik?

14 MR. GUNDERSEN: Yes.

15 CHAIR FAVRE: Yes, we can hear you. Go  
16 ahead, Erik. Thank you.

17 MR. GUNDERSEN: Okay. Thanks. My name  
18 is Erik Gundersen. I am a certification  
19 specialist at MOSA. MOSA is an accredited  
20 certification agency located in Viroqua,  
21 Wisconsin. We certify approximately 1,700  
22 organic operations across the United States,

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1 including approximately 215 handlers. So I'm  
2 going to be commenting today primarily on the  
3 discussion document regarding the annotation  
4 change to vitamins and minerals on 205.605(b) of  
5 the national list.

6 This discussion document outlines two  
7 options that would change the annotation for  
8 vitamins and minerals. We recognize the  
9 challenging nature of this topic and appreciate the  
10 time and thought that has gone into this document.  
11 In MOSA's work on this topic, we have been in  
12 contact with other ACAs and found that there are  
13 differences in the interpretation of this current  
14 annotation. This is partially due to the  
15 incorrect section of the FDA CFR that we are  
16 cross-referencing, and it's also due to unclear  
17 guidance from the NOP over the past decade.

18 As a relatively new employee of an ACA,  
19 I can't tell you how strongly I feel that the NOP  
20 needs to be striving for clarity in regulations so  
21 that ACAs can work towards consistency of  
22 interpretation. And while we, both MOSA and the

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1       ACA community, are always working diligently  
2       towards that goal, this clarification from the NOSB  
3       and NOP will aid in meeting that goal. In  
4       developing our opinion on this subject, MOSA looked  
5       first to the needs of our clients and staff, as well  
6       as the opinions and needs of the organic consumer.

7               We feel that organic food processors  
8       adding synthetic vitamins and minerals should not  
9       be relegated to the made with organic category, as  
10       is outline in the first option from the discussion  
11       document. Requiring all of our clients currently  
12       using these ingredients to change their label  
13       claims would be a tricky and cumbersome process to  
14       navigate. The proposed changes outline in Option  
15       1 has the potential to cause much consumer  
16       confusion and to cost processors significant  
17       money.

18               Therefore, we here at MOSA are in favor  
19       of an annotation where synthetic vitamins and  
20       minerals are allowed in organic and made with  
21       organic products. This new annotation would cite  
22       the correct sections of the FDA CFR 101.9, as well

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1 as the two sections referencing fortification of  
2 infant formula, and it would also cite the FDA  
3 standards of identity, which we believe would  
4 ensure vitamins and minerals would be used when  
5 they are mandated by law. This annotation would  
6 provide the strongest possible footing to ACAs when  
7 reviewing products containing these ingredients,  
8 which we believe would prevent their misuse.

9 And as a tag-on to this topic, MOSA  
10 would strongly request further time be spent on  
11 accessory nutrients, such as Omega-3 fatty acid,  
12 DHA, and ARA. As the organic industry and the  
13 demand for highly nutritious food grows, we are  
14 seeing more and more organic processors requesting  
15 the use of these ingredients. MOSA is aware that  
16 there is an interim rule regarding the use of these  
17 ingredients, but similar to the current annotation  
18 for vitamins and minerals, having these  
19 ingredients being allowed under an interim rule has  
20 opened the door for a number of interpretations  
21 and, therefore, inconsistency in the review of  
22 these ingredients industry-wide.

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1           Again, ACAs must have thoughtful,  
2 clear, established regulations from which to  
3 review these ingredients. We request that the  
4 NOSB take up the review of these ingredients in  
5 order to determine their acceptability in organic  
6 and made with organic products. So, in closing,  
7 I just would like to say that the public comment  
8 process is a critical element of keeping the  
9 organic label strong and we here at MOSA greatly  
10 appreciate this process being opened up to include  
11 not only the in-person comments, but this webinar  
12 as well. And just wanted to say, thanks for your  
13 work on this and all the other topics being worked  
14 on this cycle.

15           CHAIR FAVRE: Another perfect timing.

16           MS. TUCKER: Perfect timing.

17           CHAIR FAVRE: Great. Thank you very  
18 much, Erik. This is a tough subject, we appreciate  
19 you tackling it and giving the ACA's perspective.  
20 Anybody have any questions for Erik? Okay, thank  
21 you very much, Erik.

22           MR. GUNDERSEN: Yes. Thank you.

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1 CHAIR FAVRE: Next up is Farley  
2 Baricuatro, if I'm saying that correctly, and then  
3 we've got Debra Clement on deck. Farley, are you  
4 with us?

5 MS. TUCKER: He is on the line and we  
6 unmuted him.

7 CHAIR FAVRE: Okay. Farley, if you're  
8 speaking, we can't hear you.

9 MS. TUCKER: Farley, we have you on your  
10 headset. If you are dialing from a phone instead  
11 of your headset and you can't hear us, go ahead and  
12 chat your phone number in and we can find you on  
13 the phone list. We've unmuted you on your headset.

14 CHAIR FAVRE: Jenny, I think he had sent  
15 in a phone number earlier in a chat, since he was  
16 calling from an international number, I think,  
17 wasn't he?

18 MS. TUCKER: Okay. Hold on a sec, let  
19 me see if I can find that. Which area code is it?  
20 6391?

21 CHAIR FAVRE: Okay. Bear with us folks.  
22 I feel like I should have a standup routine to fill

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1 these dead air spots. Sorry, guys, I'll prepare  
2 better next time.

3 MS. TUCKER: Yes. Hold on one second.  
4 There we go, okay, it was 63917. I don't have any  
5 number that looks remotely like that. Just one  
6 second. Maybe it's the 917? No, I don't have any  
7 area code that looks like that number.

8 CHAIR FAVRE: Okay. Farley, in the  
9 interest of moving things along, if you could go  
10 ahead and send in a chat with a phone number that  
11 you are going to be using again, that would be  
12 great, but we're going to move on to the next  
13 commenter and we'll come back to you at the end.  
14 Next up is Debra Clement. And I see Debra will be  
15 -- oh, I see Farley. Farley, we'll go ahead and  
16 put you up and we'll go ahead and let Debra speak.  
17 Jenny, if you can go ahead and unmute Debra. She  
18 just sent in a phone number.

19 MS. TUCKER: Okay. Hold on. We're not  
20 seeing an 0458 in the list.

21 CHAIR FAVRE: Okay. It looks like we're  
22 having dueling phone number problems. Can we go

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1 back to Farley then while you and Debra straighten  
2 things out?

3 MEMBER CHAPMAN: Debra's name is listed,  
4 do you want to try Debra.

5 MS. TUCKER: I just saw her. There she  
6 is.

7 CHAIR FAVRE: There she is. Okay.  
8 Debra, you are unmuted, you should be able to speak.  
9 Can we --

10 MS. CLEMENT: Hello?

11 CHAIR FAVRE: Are you there, Debra?

12 MS. CLEMENT: Yes, can you hear me?

13 CHAIR FAVRE: Yes, we can. Please go  
14 ahead.

15 MS. CLEMENT: Excellent. Well, thank  
16 you very much for the opportunity to address you  
17 all today. I would like to highlight the  
18 importance of sodium lactate in our organic  
19 products and the reason that we believe it's a  
20 valuable and suitable ingredient for inclusion on  
21 the national list. So, today, I'll look at sodium  
22 lactate, although the concepts can also be applied

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1 to potassium lactate. I believe that the summary  
2 presented in the discussion document --

3 (Telephonic interference)

4 MS. CLEMENT: -- highlights that sodium  
5 lactate is both an important and a safe ingredient  
6 to use in organic food processing. It's  
7 versatility and wide functionality means that it  
8 has an important application to many foods.

9 So why is sodium lactate such an  
10 important ingredient for organic processing?  
11 Well, we all love freshly picked organic produce,  
12 although the reality of consumer demand for fresher  
13 more convenient products in no way has given rise  
14 to the specific segment of the food industry  
15 dedicated to safe, high quality food with great  
16 flavor, color, and nutrition. So, herbs and  
17 spices, this is incredibly important as the  
18 volatile flavors and aromas are extremely delicate  
19 and unstable and, therefore, traditional food  
20 processing techniques, such as heat treatment and  
21 acid preservation, destroy the colors and flavors  
22 and also affect nutrition.

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1           So this is really not acceptable when  
2 herbs' entire purpose for existing is imparting  
3 color and flavor to meals, as well as numerous  
4 health benefits. So, for us at Gourmet Gardens,  
5 searching out ways to process organic foods which  
6 deliver on consumer expectation is what we're all  
7 about. And sodium lactate is a key ingredient in  
8 producing the highest quality herbs and spices,  
9 which deliver on flavor and nutrition and are also  
10 safe to use. Its amazing versatility and wide  
11 functionality have allowed us eliminate all  
12 artificial preservatives from our products.

13           So, let me walk you through how this  
14 works. Sodium lactate is a combination of lactic  
15 acid and sodium hydroxide. This is important as  
16 it contains the inherent antimicrobial  
17 functionality of lactic acid, plus it imparts  
18 additional antimicrobial functionality through  
19 reduced water activity, plus it does all this at  
20 an ideal pH range, without destroying the  
21 chlorophyll. So, I want to thank you for changing  
22 the annotation to include pH regulator.

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1                   Reducing water activity in  
2 preservatives and products, we discovered natural  
3 preservation methods like salt and also found that  
4 introducing many hurdles alongside each other  
5 could achieve much greater safety than one hurdle  
6 alone. Also, using many hurdles can reduce the  
7 damage of harsh heat treatment. For example,  
8 reducing water activity can reduce the cook time  
9 and produce a far higher quality and more natural  
10 product.

11                   Add to that the natural antimicrobial  
12 functionality, the right pH, and suddenly you have  
13 a product that's actually retaining the natural  
14 attributes of the raw product, but it's still safe,  
15 hence eliminating preservatives without having to  
16 cook all the goodness out of it. And these  
17 products will still remain safe once opened. So,  
18 sodium lactate can eliminate the need for  
19 artificial preservatives and it has proven  
20 effectiveness, unlike some other emerging  
21 antimicrobials mentioned in the technical review,  
22 which despite some promising research results, a

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1 lot of them had very limited commercial merit.

2 So, the second part of the equation is  
3 that sodium lactate is not just a different type  
4 of lactic acid. Lactic acid is acidic, so it  
5 destroys the green color of chlorophyll and it's  
6 not good for our health to consume highly acidic  
7 food. To make the case, sodium lactate comes to  
8 the rescue, providing antimicrobial capability,  
9 water activity control, and maintaining the pH in  
10 the correct range for the optimum product  
11 experience and consumer health.

12 So this is why there are currently no  
13 substitutes already on the national list and we  
14 have tried several. Food is extremely complex and  
15 there are many different types of degradation we  
16 need to control, microbial, chemical, enzymatic,  
17 physical. So this is why we believe that sodium  
18 lactate has a place on the national list, to allow  
19 safe, convenient organic food options. Thank you  
20 very much.

21 CHAIR FAVRE: Good timing, Debra.  
22 Thank you very much. Anybody have questions for

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1 Debra? Harold?

2 MEMBER AUSTIN: Yes. Hi, Debra, thank  
3 you. Kind of a two part question. One, and I  
4 think you've partially answered it, but what would  
5 be the significant impact on your business and your  
6 growers that supply you the goods if sodium and  
7 potassium lactate were removed from the national  
8 -- well, were not added to the national list and  
9 therefore you were not able to use it? And second  
10 part of this, when did you guys start to use the  
11 sodium lactate as part of your process? Before or  
12 after the NOP's prior decision that listing these  
13 was not necessary? Do you know?

14 MS. CLEMENT: Okay. So firstly, there  
15 would be significant impact on our product, on our  
16 business, because we use sodium lactate in a lot  
17 of different products. Every product is different  
18 and it's formulated different, because each herb  
19 and spice is different, but sodium lactate is very  
20 important in most of our products. And we've used  
21 sodium lactate before 2004 and we've used sodium  
22 lactate in our organic products since we first

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1 launched organic products.

2 MEMBER AUSTIN: Okay. Thank you.

3 MS. CLEMENT: Thanks.

4 CHAIR FAVRE: Any other questions for  
5 Debra? Okay, thank you, Debra. We appreciate you  
6 taking the time to join us today. We're going --

7 MS. CLEMENT: Thank you very much.

8 CHAIR FAVRE: -- to go back, circle back  
9 to Farley Baricuatro. Farley, are you with us now?

10 MR. BARICUATRO: Yes, can you hear me  
11 now?

12 CHAIR FAVRE: Yes, we can.

13 JJF: Yay.

14 CHAIR FAVRE: Thank you, go ahead.

15 MR. BARICUATRO: Okay. That's good.  
16 Good afternoon. I am Farley Baricuatro with the  
17 FMC and I buy about 20,000 of dried seaweed for FMC  
18 in a year. I would say that I represent the seaweed  
19 farm sector in tropical countries that now produce  
20 in excess of 250,000 dry pounds or 2.5 million wet  
21 pounds each year. Next slide please.  
22 Carrageenan harvesting is sustainable from farm to

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1 vendor to producers to consumers. Carrageenan  
2 manufacturing uses seaweed varieties that have  
3 been consumed for hundreds of years in Asia,  
4 Africa, the Americas, and Europe, either eaten raw  
5 as a salad, cooked into dessert gels, or added as  
6 food thickeners without any reported deleterious  
7 effects.

8 For farmers, seaweed farming  
9 alleviates poverty, empowers women, provides  
10 independent farmers with positive economic  
11 position, helps in preserving the environment,  
12 promotes biodiversity, remains culturally  
13 significant. Seaweed farming also provides  
14 vendors and processors with benefits such as  
15 traceability. Next slide please. Seaweed is  
16 grown in farms by at least 75,000 farming families  
17 around the coasts of tropical countries like  
18 Indonesia, the Philippines, Vietnam, Malaysia,  
19 Tanzania, Madagascar, the Pacific Islands like  
20 Fiji and Kiribati and other countries.

21 Seaweed farmers are small stakeholders  
22 who use their own capital, relying on fast harvest

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1 turnover of six weeks on average, 80 percent of the  
2 price goes to the farmers, making farming an  
3 attractive economic activity. These jobs allow  
4 farmers to care for their families and generate a  
5 multiplier effect in the final income in the  
6 communities. Seaweed farming is a platform for  
7 women empowerment. In Tanzania and Madagascar,  
8 where Muslim societies are dominated by men,  
9 seaweed farming is one arena where women are the  
10 major players, comprising 80 to 90 percent of the  
11 workforce.

12 Even in Southeast Asia, seaweed farming  
13 are shared by men and women. About 50 percent of  
14 the farms in Southeast Asia are mainly run by women.  
15 Sea farming is traditional in these societies.  
16 Seaweed farms have the capacity to grow with the  
17 market demand, so curtailing the use of carrageenan  
18 in the food industry would effectively render  
19 thousands of empowered individual farmers  
20 unemployed. There are no big monolithic corporate  
21 seaweed farms, only individual small scale farmers  
22 and their families will be hurt most.

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1           Seaweed farming is a green industry.  
2           It has low impact on the environment and it  
3           preserves coral reefs from activities that these  
4           farmers otherwise will engage in like fishing, fine  
5           net trolling. Seaweed grows only in clean waters  
6           and do not use pesticides, fertilizers, or  
7           synthetic inputs. You just tie seaweed in a line  
8           and it will grow like a weed in the sea. Seaweed  
9           farming promotes biodiversity as the farms are  
10          excellent breeding grounds for fish and marine  
11          organisms.

12           The species being grown in these  
13          seaweed farms in Asia and Africa are endemic to the  
14          location and are therefore non-invasive. These  
15          species are natural and non-genetically modified.  
16          And as we go up the supply chain, the players in  
17          the seaweed industry are implementing key roles in  
18          ensuring sustainability. Vendors or collectives  
19          are providing adequate working conditions, supply  
20          security, and traceability of their produce.  
21          Thank you.

22           CHAIR FAVRE: Okay. Thank you, Farley.

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1 Anybody have questions for Farley? Okay, I don't  
2 see any. Thank you very much for your  
3 presentation.

4 MR. BARICUATRO: You're welcome.

5 CHAIR FAVRE: Okay, folks, we are going  
6 to circle back around to Helen Kees and then Amber  
7 King. Helen, are you with us?

8 HHK: I am.

9 CHAIR FAVRE: Okay. Please go ahead.

10 HHK: Good afternoon. As introduced,  
11 I'm Helen Kees, president of the Cornucopia  
12 Institute. And I'm speaking to you from our  
13 diversified family farm here in west central  
14 Wisconsin. Our farm name, Wheatfield Hill  
15 Organics, is in honor of the crop my grandfather  
16 grew on a bluff field that was heavy enough to raise  
17 wheat. I now stand on the shoulders of my  
18 foreparents with an awesome responsibility. I was  
19 formed in my mother's womb from this very soil and  
20 I am now interested with keeping it sacred enough  
21 to raise food fit to nourish other life. My  
22 grandchildren are the fifth generation to live and

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1 work on our farm.

2 We are farmers. We have chosen to be  
3 certified organic farmers for the past 20 years.  
4 We have no full-time employees, family members  
5 constitute the labor for our farm, outside of some  
6 seasonal help. Our home farm consists of 320  
7 acres, with 100 tillable and 100 acres of pasture.  
8 We also lease another 345 acres. Year round, we  
9 husband 40 to 50 cow rotationally grazed beef herd,  
10 operate a farmstead processing kitchen, where much  
11 of our blueberry and raspberry crops are processed,  
12 and sell dairy quality alfalfa forage to other  
13 certified organic producers. In addition, we grow  
14 two acres of asparagus, 20 to 25 acres of corn and  
15 melons, and other traditional vegetables.

16 One of your newly seated Board members,  
17 Harriet Behar, has visited our farm as an organic  
18 inspector. Harriet is highly respected by our  
19 family and the extended organic community. I am  
20 thrilled that a sister Wisconsinite is sitting on  
21 the NOSB. Cornucopia Board member, Dr. Barry  
22 Flamm, was originally scheduled to speak in this

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1 slot, however, due to a critical medical  
2 appointment, Dr. Flamm is not able to interface  
3 with you today.

4 Barry felt an obligation to address you  
5 because of his deep concern over your loss of  
6 authority due to the USDA unilaterally changing  
7 your policies and procedures. Not only as a past  
8 Chair of your Policy Committee, but also as the  
9 Chairman of the NOSB, Barry is uniquely qualified  
10 to make this judgment. He was intimately involved  
11 with the authorship of the policy and procedure  
12 manual in 2002. To say that Dr. Flamm is alarmed  
13 at the possibility that you may actually vote to  
14 codify this hijacking of your authority into your  
15 PPM is an understatement.

16 To draw a parallel, can you imagine your  
17 outrage if the Executive Branch of our Federal  
18 Government, possibly by Executive Order, rewrote  
19 the Constitution of the United States of America  
20 without any input or scrutiny from the Legislative  
21 Branch? Do you think the states would ratify such  
22 a change? Of course not. The Constitution itself

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1 contains the instructions to guide any change or  
2 adaptation to the document. Likewise, in the  
3 past, when your PPM needed to be updated, the  
4 process laid out in the manual itself guided and  
5 directed the process of the update.

6 Your PPM originally released in 2002  
7 was developed by you, for you, of you, in a  
8 transparent process with input from the organic  
9 community before any ratification by the USDA.  
10 Likewise, your 2012 update was conducted in the  
11 same manner. Personally, and I believe Dr. Flamm  
12 would agree, the USDA policy and procedure changes  
13 of 2015 is one of the largest cases of identity  
14 theft I have seen. Just because someone has stolen  
15 your identity does not mean that you should not  
16 fight to get it back and for farmers' sake, surely  
17 not vote to condone it. Please --

18 CHAIR FAVRE: Helen, excuse me. Helen,  
19 your time -- the timer went off a few seconds ago.  
20 We're going to need to wrap it up there. Thank you.  
21 Do we have any questions for Helen? Thank you. We  
22 appreciate it and we hope Barry is doing well.

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1 Please give him our regards.

2 HHK: I'll pass your message on.

3 CHAIR FAVRE: Thank you. Next up will  
4 be Amber King. And that will be our last public  
5 commenter. Amber, are you with us?

6 MS. KING: Hi, can you hear me?

7 CHAIR FAVRE: Yes, we can. Please  
8 proceed.

9 MS. KING: All right. Thank you. Dear  
10 distinguished members of the NOSB, my name is Amber  
11 King. I am a chef, a mother, a small business owner  
12 selling organic personal care products and I work  
13 in the health and wellness community. I've been  
14 involved in multiple aspects of the food industry  
15 since I was 14 years old, from high end restaurants  
16 to a manager with the USDA Childcare Food Program  
17 to sales with the largest organic CSA program on  
18 the West Coast. I bring my requests and comments  
19 as a concerned citizen for upholding and  
20 strengthening USDA organic standards as an urgent  
21 matter of public health. I am addressing some main  
22 issues today in my comments.

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1           First of all, the unwanted ingredients  
2           in organics, such as carrageenan, cellulose,  
3           non-organic dyes and artificial flavors, as well  
4           as contamination by chemicals and new technologies  
5           in organic food and personal care products, and the  
6           impacts on children's health, and what we request  
7           be done about these issues. We do not believe the  
8           following substances should be in organic food:  
9           carrageenan.

10           We see these systems every day, we see  
11           our children, and we can argue study after study,  
12           I've listened to many of the comments today, and  
13           every day I live with seeing my daughter's reaction  
14           to carrageenan and hearing my friends talk about  
15           it with their children. Cellulose is just another  
16           one of these ingredients that we really consider  
17           not a food substance and we would want a non-GM  
18           product in its place that is organic and not causing  
19           a reaction.

20           Chlorine materials, disinfecting and  
21           sanitizing food surfaces, as well as artificial  
22           dyes and colors that cause allergic reactions,

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1 neurological damage, and chronic inflammation and  
2 where these products are only benefitting the food  
3 manufacturers and they're not benefits of health  
4 to the end consumer. If it doesn't happen  
5 naturally and you cannot find a true organic  
6 product, the consumers are okay with not having  
7 these substances in our foods, regardless of mouth  
8 feel, of color or artificial flavor.

9 Also, acidified sodium chloride, a  
10 synthetic disinfectant made by DuPont, a synthetic  
11 DHA that is a strain of algae, synthetic vitamins  
12 and minerals, we do not find non-organic acceptable  
13 substitutes, including adding in of non-wild fish  
14 substances. I know the gentleman before spoke  
15 regarding fish oils and essential fatty acids that  
16 we want wild or natural products that are not  
17 synthetic in our organic foods.

18 We are also concerned about crisper  
19 technology that is not being evaluated or regulated  
20 by current USDA or FDA processes and, from a food  
21 standpoint, find that terribly discouraging. It  
22 is a very concerning situation and I hope the

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1 National Organics Standards Board is taking into  
2 consideration and to not follow this path of  
3 advancement of technology to be allowed in organic  
4 standards.

5 I would really like to remind you that  
6 the National Organics Standards Board policy is to  
7 make decisions with the care of an ordinary prudent  
8 person in a similar position, and this law requires  
9 Board members to exercise the judgment of an  
10 ordinary person. That person is me, I am a mother  
11 and I am buying food for my family. We request the  
12 NOSB eliminate the phrase natural flavors on  
13 labeling of organic products that require the full  
14 ingredient list.

15 Our children's health and the reactions  
16 that they are having because of widespread  
17 inflammation due to GM and contaminated foods is  
18 -- their health really depends on it. My five year  
19 old daughter has skin sensitivities and I see them  
20 over and over again. The toxins in these foods not  
21 only affect our family's immediate health, they  
22 affect our future and the potential health of the

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1 country. We understand you may not usually  
2 address these issues, but we need to come together  
3 and go beyond our usual responsibilities in these  
4 extraordinary circumstances. Thank you for  
5 taking time to protect organic standards and the  
6 health of our children and the future of this  
7 country.

8 CHAIR FAVRE: Great. Thank you very  
9 much, Amber, and we appreciate your patience in  
10 staying through to the end so you still had a chance  
11 to speak. I see that Harold Austin had a question.  
12 Harold, go ahead.

13 MEMBER AUSTIN: Thanks, Tracy. Amber,  
14 you made a comment when you were talking about  
15 carrageenan and then you moved into cellulose about  
16 this would remove the concern for the reaction.  
17 What specific reaction to the consumption of  
18 cellulose are you referring to?

19 MS. KING: For me, it's usually GM corn  
20 products or non -- I don't consider wood chips a  
21 food product. So I would look for something that  
22 is naturally occurring that is organic or can be

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1 considered organic. So we're looking at rash  
2 reactions to these ingredients and additives.

3 MEMBER AUSTIN: Okay. So it would be  
4 the replacement of cellulose, not the cellulose  
5 itself?

6 MS. KING: Yes. From a better source  
7 that is able to be certified.

8 MEMBER AUSTIN: Okay. Thank you.

9 CHAIR FAVRE: Okay. Any other  
10 questions for Amber? Okay. Thank you, Amber.  
11 Folks, this brings us to the close of our webinar.  
12 We ran about ten minutes over, which I think is not  
13 too bad given that it was a three hour webinar. We  
14 appreciate everyone joining us. Again, I want to  
15 reiterate how much I appreciate everybody  
16 participating in this webinar as I think this is  
17 an important opportunity for outreach and we look  
18 forward to hearing from you all again in helping  
19 us make our deliberations. And for those of you  
20 that we will see in Washington, D.C., we will see  
21 you in about a week. You all take care. Thank  
22 you.

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1  
2  
3  
4

(Whereupon, the above-entitled matter  
went off the record at 4:11 p.m.)

## UNITED STATES DEPARTMENT OF AGRICULTURE

+ + + + +

## NATIONAL ORGANIC STANDARDS BOARD

+ + + + +

## SPRING 2016 MEETING

+ + + + +

MONDAY

APRIL 25, 2016

+ + + + +

The Board met in the Blue Room of the Omni Shoreham Hotel, 2500 Calvert Street, N.W., Washington, D.C., at 9:00 a.m., Tracy Favre, Chair, presiding.

PRESENT

TRACY FAVRE, Chair  
TOM CHAPMAN, Vice Chair  
HAROLD AUSTIN  
CARMELA BECK  
HARRIET BEHAR  
A-DAE ROMERO-BRIONES  
JESSE BUIE  
LISA DE LIMA, Secretary  
EMILY OAKLEY  
SCOTT RICE  
JEAN RICHARDSON  
DAN SEITZ  
ZEA SONNABEND  
ASHLEY SWAFFAR  
FRANCIS THICKE

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ALSO PRESENT

MICHELLE ARSENAULT, Advisory Board Specialist,  
National Organic Program

LISA BRINES, National List Manager, National  
Organic Program

EMILY BROWN ROSEN, Agricultural Marketing  
Specialist, National Organic Program

PAUL LEWIS, Director, Standards Division,  
National Organic Program, USDA

MILES McEVOY, Designated Federal Officer, Deputy  
Administrator, National Organic Program

ELANOR STARMER, Administrator, Agricultural  
Marketing Service

STACY TOLLEFSON, University of Arizona,  
Hydroponics Task Force

JOHN BIERNBAUM, Michigan State University,  
Hydroponics Task Force

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1 P-R-O-C-E-E-D-I-N-G-S

2 9:01 a.m.

3 MR. McEVOY: Okay. We're going to get  
4 started.

5 Okay. Good morning, everyone.  
6 Welcome to Washington, D.C. Beautiful spring day  
7 here. I hope you get some time to enjoy the  
8 beautiful sights in Washington, D.C. It's really  
9 an amazing city, especially this time of year.  
10 Lots of flowers, lots of the birds are coming north.  
11 If you're a bird watcher, Rock Creek Park right  
12 here, right by the hotel is a birding hot spot for  
13 warblers. It'll be thousands of them coming  
14 through, dozens of species of warblers. So if  
15 anybody wants to talk to me more about that during  
16 a break, you know who to talk to.

17 So I'm Miles McEvoy, Deputy  
18 Administrator for the National Organic Program in  
19 the Agricultural Marketing Service, also the  
20 designated federal officer for the National  
21 Organic Standards Board. Welcome to the Spring  
22 National Organic Standards Board Meeting 2016.

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1                   And with that, I'll turn it over to  
2 Tracy Favre.

3                   CHAIR FAVRE:    Good morning.    Thanks  
4 everyone for joining us today here in Washington,  
5 D.C.   We really look forward to an opportunity to  
6 have a supportive meeting of organic agriculture  
7 through a very productive meeting today, or this  
8 week.

9                   On my farm in Texas this is actually one  
10 of the most beautiful months with lush green grass,  
11 our newborn lambs on the ground and our bees  
12 foraging for pollen and nectar from all the wild  
13 flowers that are on the ground.   And I'm really  
14 struck at this time of the year by why we're doing  
15 what we're doing at this meeting.

16                   As I look out on all of you, I'm really  
17 struck by the fact that we're all here for the same  
18 reason, and that is to build a robust organic  
19 movement that enjoys the highest consumer  
20 confidence and offers a sustainable livelihood for  
21 farmers and their families while protecting the  
22 environment and this world that we live in.

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1           That's a giant undertaking and we all  
2           have our roles to play, but I truly believe that  
3           we are stronger together than we would be apart in  
4           this. We're all mavericks in this room, bucking  
5           the mainstream to pursue this goal, and in that  
6           spirit I'd like to invite Board member Dr. Jean  
7           Richardson to start us off with an inspirational  
8           reading.

9           Jean?

10           MEMBER RICHARDSON: I'm going to be  
11           reading a poem which most of you are going to know  
12           quite well: Robert Frost's "The Road Not Taken,"  
13           and it can be attributed in many ways, so when you  
14           listen to it, as you listen to it, I would like you  
15           to try to think of yourself as one of those leaders,  
16           one of those mavericks. Whoever you are, farmer,  
17           certifier, trouble maker, NOP, NOSB members, all  
18           of you, try to put yourself into this poem and  
19           remember that you took the road less traveled,  
20           which makes you a rather special person and  
21           inspiration to all of us, too.

22           "Two roads diverged in a yellow wood,

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1                   And sorry I could not travel both  
2                   And be one traveler, long I stood  
3                   And looked down one as far as I could  
4                   To where it bent in the undergrowth;  
5  
6                   "Then took the other, as just as fair,  
7                   And having perhaps the better claim,  
8                   Because it was grassy and wanted wear;  
9                   Though as for that the passing there  
10                  Had worn them really about the same,  
11  
12                  "And both that morning equally lay  
13                  In leaves no step had trodden black.  
14                  Oh, I kept the first for another day!  
15                  Yet knowing how way leads on to way,  
16                  I doubted if I should ever come back.  
17  
18                  "I shall be telling this with a sigh  
19                  Somewhere ages and ages hence:  
20                  Two roads diverged in a wood, and I --  
21                  I took the one less traveled by,  
22                  And that has made all the difference."

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1 CHAIR FAVRE: Words to remember as we  
2 inform this week what we do here makes all the  
3 difference.

4 Okay. I'd like to start with an  
5 introduction of our table here, NOP staff and Board  
6 members, and we're going to start down at this end  
7 of the table with our support, Michelle Arsenault.

8 Go ahead.

9 MS. ARSENAULT: I wasn't expecting  
10 that. Welcome everyone. Good to see all of the  
11 familiar faces.

12 How many people have not been to an NOSB  
13 meeting before?

14 (Show of hands.)

15 MS. ARSENAULT: All right. Look  
16 around you and see all the hands that are not up.  
17 If you have any questions, these guys are old hat  
18 and can answer any questions you may have.

19 Welcome. I hope we all have a really  
20 great meeting.

21 MS. BROWN ROSEN: Hi, I'm Emily Brown  
22 Rosen. I work with the Standards Division and I

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1 also spend a lot of time on the phone with the NOSB  
2 Subcommittees, helping them out and giving them a  
3 little technical support. Thanks.

4 MEMBER AUSTIN: Harold Austin. I'm  
5 with Zirkle Fruit. I sit in one of the two handling  
6 positions. I am the current chair of the Handling  
7 Subcommittee. And I just have to say thanks to all  
8 of you for the well wishes. Last year about this  
9 same time I was quite sitting upright, but laying  
10 in a hospital bed with a busted femur. I got to  
11 say it's really nice to be here back in person,  
12 being able to see and mingle and talk with each and  
13 every one of you.

14 (Applause.)

15 MEMBER AUSTIN: Thank you.

16 MEMBER BUIE: I'm Jesse Buie. I'm  
17 President of Old Brook Organics in Brookhaven,  
18 Mississippi, and I presently sit in one of the  
19 producer slots. I'm really honored to have this  
20 opportunity to be here. And I guess we have a  
21 couple of slides. I'm certified in mixed  
22 vegetables and melons. I have a contract with

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1 Rainbow, Whole Foods and Fresh Market in  
2 Mississippi where I basically grow squash, yellow  
3 meat watermelons -- that is -- what we have on there  
4 is turmeric. I grow two types --

5 (Off microphone comment.)

6 MEMBER BUIE: Okay. Where I this year  
7 grew two types of turmeric, the regular organic  
8 turmeric and a white mango turmeric and a Blue Baba  
9 ginger. And it was a kind of experiment and we had  
10 some success. The only problem is we -- in  
11 Mississippi it's a seven-month growing period, and  
12 those products need nine months. So this year we  
13 have a high turnover and hopefully we'll have  
14 better success.

15 The farm is part of the Buie Family  
16 Trust, which is a total of 200 acres, and I'm proud  
17 to say that we do have our original 40 acres and  
18 a mule. The mule's been dead for about 145 years --

19 (Laughter.)

20 MEMBER BUIE: -- but -- and this was  
21 through my mother's ancestry, Austin Buie.

22 So and I've been in farming for over 55

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1 years, and I just want to give a little perspective  
2 of where I come from. The other one, the French  
3 breakfast -- that's my other product. That's a  
4 French breakfast radish that we also produce and  
5 sell.

6 But to move this thing along, I've been  
7 in farming for over 55 years. I've also been in  
8 health care administration. And I say all this to  
9 kind of give a perspective from where I come from.

10 When I started out, I went to the State  
11 of Mississippi and said I wanted to -- I want to  
12 be organic. They immediately told me there was  
13 nothing they could do for me. And not only that,  
14 they didn't know I could ask. So from that I  
15 started to do the research. I got a lot of help  
16 from people outside of the state. So I'm really  
17 motivated because when I started this process, it  
18 was the USDA symbol I was looking at, and it meant  
19 a lot to strive for that.

20 Sitting on this board here, that's what  
21 I want to make sure continues, that integrity,  
22 because when I had my inspection this summer, the

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1 inspector said, Jesse, we have a surprise for you.  
2 You've been selected for a spot test. And so all  
3 of a sudden they start pulling up all my plants and  
4 stuff.

5 But the bottom line is this is what it's  
6 all about: the documentation of quality. And  
7 hopefully that's one thing that I can be a part of  
8 assuring, that USDA label means integrity. So as  
9 a member here I would hope to strive to do  
10 everything I can to make sure that the label means  
11 what people out there think it means and what it  
12 should mean. So thank you very much.

13 MEMBER BECK: Good morning. My name  
14 is Carmella Beck. I'm the Organic Program Manager  
15 at Driscoll Strawberry Associates. We're a  
16 100-plus-year family-owned business, working with  
17 independent farmers to distribute both organic and  
18 conventional strawberries, raspberries,  
19 blackberries and blueberries, and we're based out  
20 of Watsonville, California. It's a pleasure to be  
21 here today.

22 MEMBER SWAFFAR: Hi, I'm Ashley

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1 Swaffar. I sit in a producer seat and I'm the  
2 current Chair of the Livestock Committee. I own  
3 a small certified mixed vegetable farm in Arkansas,  
4 and I've worked with organic and pasture-based egg  
5 producers.

6 MEMBER ROMERO-BRIONES: (Native  
7 language spoken.) My name is A-dae Romero-Briones  
8 and I come from the village of Cochiti Pueblo, New  
9 Mexico, but I currently reside on the Island of  
10 Lana'i in Hawaii, and I work with indigenous  
11 farmers both through First Nations Development  
12 Institute and Pulama Lana'i. My primary job on  
13 Lana'i is to develop food and agricultural  
14 businesses for the island. First Nations  
15 Development Institute, I work with indigenous  
16 farmers throughout the country on developing  
17 businesses and creating agricultural-based  
18 reservation economies.

19 The picture is my village, Cochiti  
20 Pueblo, New Mexico. That is three of our buffalo  
21 and some of our agricultural lands. Our primary  
22 crop is indigenous varieties of corn and different

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1 varieties of grasses. Thank you.

2 MEMBER DE LIMA: Good morning. I'm  
3 Lisa de Lima. I serve in the one and only retailer  
4 seat on the Board. This is my second year. I work  
5 at MOM's Organic Market. We're a local  
6 independently-owned and operated chain here in  
7 D.C. and Maryland and Northern Virginia. And I've  
8 been in organic retail for 19 years.

9 VICE CHAIR CHAPMAN: Hello, my name is  
10 Tom Chapman. I'm the Vice Chair of the NOSB, Chair  
11 of the Policy Development Subcommittee and I sit  
12 in a handler seat. I'm a senior sourcing manager  
13 for ingredients at Clif Bar, based in Emeryville,  
14 California. Organic agriculture is a core value  
15 of Clif Bar under our five aspirations. And to  
16 give you guys a sense, today we purchase over 640  
17 million pounds of organic ingredients avoiding 5  
18 million pounds of pesticides over 30,000 acres of  
19 organic farmland.

20 MEMBER SEITZ: Good morning, everyone.  
21 My name is Dan Seitz and I fill a public interest,  
22 consumer slot on the NOSB. And this is my first

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1 meeting, and I am delighted and honored to be on  
2 the NOSB.

3 First of all, I just want to say that  
4 I live in the beautiful Berkshire region of Western  
5 Massachusetts. On this slide you can see a view  
6 from one of our hills or mountains, depending upon  
7 your point of view. That's Monument Mountain,  
8 famous for Nathaniel Hawthorne and Herman Melville  
9 having taken a walk in 1850 up the mountain and  
10 being stuck in a cave due to a thunderstorm. And  
11 as a result, Herman Melville conceived the idea of  
12 Moby Dick, or at least he added to his thoughts on  
13 what to write about.

14 I'll say that I think during my five  
15 years on the Board here I won't have time to reread  
16 Moby Dick.

17 (Laughter.)

18 MEMBER SEITZ: Being on the Board  
19 represents a number of my professional and personal  
20 interests. I serve on the Board of a food co-op  
21 in Great Barrington where I live, and we focus on  
22 sourcing our food sustainably, organically,

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1 locally.

2 Also, for the last 30 years I've been  
3 involved with natural alternative, complementary,  
4 integrated medicine. There are different terms  
5 for that. Currently serving as the executive  
6 director for the Council on Naturopathic Medical  
7 Education and also consulting and advising others  
8 in homeopathy, Ayurvedic medicine, yoga therapy  
9 and nutrition. And at the heart of all of these  
10 different fields is the understanding that  
11 nutrition, good nutrition is really a primary  
12 source of good health. In fact the father of  
13 Western Medicine, Hippocrates, said let food be thy  
14 medicine and let thy medicine be food. And I think  
15 if Hippocrates was living today, he would say let  
16 organic, sustainably produced food be thy  
17 medicine, and let that medicine be organic  
18 sustainably produced food.

19 And finally, I want to say that I'm also  
20 excited to be on the Board because it's going to  
21 be an opportunity for a crash graduate-level course  
22 in chemistry, biochemistry, ecology, agronomy;

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1 I've let out some others, as well as political  
2 science. So I'm going to learn a lot. And again,  
3 delighted to be part of this community.

4 MEMBER RICHARDSON: Good morning  
5 again. Jean Richardson. This is my fifth and  
6 final year on the Board. I have a few things that  
7 I'd like to accomplish yet. I'm a professor  
8 emerita of environmental studies and environmental  
9 law, University of Vermont. And I've been an  
10 organic inspector for 16 years, and I am from the  
11 great little State of Vermont that brought us all  
12 a GMO labeling bill.

13 (Applause.)

14 MEMBER BEHAR: I'm Harriet Behar. I  
15 come from Gays Mills, Wisconsin. I'm sitting in  
16 the conservation/natural resources seat, but many  
17 of you know me as many different things. I've been  
18 an organic inspector. I am a certified organic  
19 farmer since 1989. Michelle is going to put some  
20 pictures up. I'm also an organic educator. This  
21 is my 10th year working for MOSES.

22 But really my most important job is

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1 being a steward of the land. And on my farm we  
2 produce all the electricity that we need for our  
3 farm. I have a solar greenhouse you see there, and  
4 it's full of plants. And I thank my husband for  
5 keeping them watered and alive. We also grow and  
6 dehydrate herbs. I sell to soap makers and tea  
7 makers and my local food co-op.

8 Next slide. But also we're also  
9 beekeepers. We have over 30 hives. And we do a  
10 lot of work on our land as well as teaching other  
11 people about doing natural resource conservation.  
12 So we have put in over 25 acres of native prairie.  
13 That stream there, we did a lot of work in the past  
14 three years improving the habitat for naturally  
15 reproducing brook trout. We have chickens. We  
16 sell eggs. I think there might be some of my egg  
17 customers in the audience.

18 And really, like I said, the most  
19 important thing that we do is steward our land.  
20 And I help educate farmers, ag professionals,  
21 processors, handlers and consumers about the  
22 benefits of organic. And it's not just only about

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1 the food you eat, but the way it's produced and  
2 keeping the resources, maintaining and enhancing  
3 them for future generations.

4 So thank you. And it's the first time  
5 on the other side of the podium here, so thank you  
6 to all my friends in the audience.

7 MEMBER SONNABEND: Hello. I'm Zea  
8 Sonnabend. I hold the scientist seat on the Board.  
9 I am with a small organic farmer with a 20-acre  
10 diversified fruit farm called Fruitilicious Farm,  
11 growing apples, figs, quince, citrus, blueberries  
12 and pears, as well as about an acre of vegetable  
13 crops for seed production.

14 I serve as a policy specialist and  
15 inspector with CCOF, and this is my fifth of five  
16 years on the NOSB as the scientist seat, which I  
17 hold from a long career of reviewing materials for  
18 compatibility with organic systems.

19 MEMBER RICE: Good morning. My name  
20 is Scott Rice. I'm a USDA accredited certifying  
21 agent representative on the Board. I'm the  
22 Accreditation and Outreach Manager for the

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1 Washington State Department of Ag Organic Program.  
2 And WSDA is the oldest and largest certifier,  
3 currently certifying about 1,100 operations in all  
4 scopes and a tremendous diversity of crops in our  
5 state. Apples, as Harold will agree, figure  
6 prominently there.

7 The next slide is an orchard in the Chelan area,  
8 northern part of the state.

9 I've been with WSDA for the past nine  
10 years. And as many of my certifier colleagues can  
11 attest, if you've been in certification long enough  
12 you've covered just about every role from inspector  
13 to reviewer, compliance manager to input materials  
14 review and just about everything else, and my  
15 experience is no different. I get to the end of  
16 some days and feel like I've filled all of those  
17 roles. And that's why we're in the work, though.  
18 It's what makes it interesting and rewarding.

19 I also serve as the Chair of the  
20 Accredited Certifiers Association. It's an  
21 organization of 50 domestic and international  
22 USDA-accredited certifiers. We work together to

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1 protect the integrity of the organic label and  
2 ensure consistent implementation of the standards.  
3 Each year our organization hosts an in-depth  
4 professional development training in conjunction  
5 with NOP's certifier training where we dive into  
6 some of those issues that we face every day and work  
7 through them together.

8 I graduated from the Evergreen State  
9 College in Olympia, Washington, home of the  
10 fighting Geoducks, where I focused on sustainable  
11 ag --

12 (Applause.)

13 MEMBER RICE: -- thank you, and food  
14 and community studies. I've worked in organic and  
15 sustainable ag for the last 20 years. It's an  
16 experience that started as an apprentice on a  
17 beautiful piece of land in Western Sonoma County  
18 in California, and it's continued through work with  
19 the Organic Materials Review Institute. I managed  
20 the farm program at Pike Place Market for several  
21 years and have overseen production of a large  
22 asparagus operation and continues with my work at

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1 WSDA today.

2 I'm excited to be here and really  
3 honored to be a part of this board and work on behalf  
4 of the organic sector. Thank you.

5 MEMBER OAKLEY: My name is Emily Oakley  
6 and I'm serving as a farmer representative, but I'm  
7 also a dedicated consumer of organic foods, and  
8 that's an important part of my perspective as well.

9 This is my full-time job. I am  
10 starting or I'm in my 13th season of farming in  
11 Oklahoma. I own 20 acres. I farm about three in  
12 annual crops and about two in perennial fruits and  
13 asparagus. And that is a challenge in Oklahoma.  
14 The rest of the land is in dedicated wildlife  
15 habitat. We have about an acre in wild flowers  
16 that are native and native edible fruits as well.  
17 That's a really important part of what we do.

18 It's my full-time job. We have no  
19 off-farm income. It's a two-person operation,  
20 which is a big part of our philosophy. And we are  
21 also direct market farmers, so we sell directly to  
22 our consumers through one farmer's market and

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1 through a CSA of about 120 members.

2 Next slide. Thank you. I just want to  
3 show you some more of our pictures of our farm to  
4 give you a sense of where I'm coming from. I've  
5 been involved in organic and sustainable  
6 agriculture for the last 22 years, through both  
7 college and graduate school working with community  
8 garden organizations.

9 And in my "off season," which is in  
10 quotes, because you're never in an off-season, but  
11 during our winter months we spend a good deal of  
12 time doing farmer-to-farmer exchanges  
13 internationally working with farmers on organic  
14 agriculture issues and having the pleasure of  
15 having people to come to our farm as well to  
16 reciprocate that exchange.

17 I look forward to meeting all of you  
18 over the next couple of days. And this is my first  
19 NOSB meeting and I hope I can do a good job of  
20 serving the diverse stakeholders that are involved  
21 in this movement. And please share your comments  
22 with me at any point if you have questions or

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1 concerns. Thank you.

2 MEMBER THICKE: Emily, it looks like  
3 there aren't any weeds in Oklahoma.

4 I'm from Iowa and I sit in an  
5 environmentalist seat. I have an organic  
6 grass-based dairy farm. I milk about 90 cows,  
7 which are going out to pasture about now, not by  
8 my work. But usually I am there. And we process  
9 our milk on the farm. We make bottled milk and  
10 yogurt and cheese, and we market it all within three  
11 miles or four miles of the farm.

12 CHAIR FAVRE: And I'm Tracy Favre,  
13 current Chair of the Board, former Livestock and  
14 PDS Subcommittee Chair. I'm a 20-year veteran of  
15 the environmental engineering field; I'm a  
16 registered professional and engineer in the State  
17 of Texas. My husband and I operate a diverse  
18 family farm in North Central Texas outside of the  
19 Dallas/Fort Worth area, including some grass-based  
20 farm-raised lamb, pastured laying hens, bees,  
21 fruit and vegetable gardens, fruits, and I'm also  
22 an organic inspector.

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1 I think you can see we've got a  
2 fantastic new cohort of board members coming in.  
3 I'm really excited. I think we got a great group  
4 this year, and we've got some fresh meat to get some  
5 of the work done for the Board.

6 (Laughter.)

7 CHAIR FAVRE: I'd like to now turn it  
8 over to AMS Administrator Elanor Starmer for an  
9 introduction and welcome. We're delighted to have  
10 her here today.

11 MS. STARMER: Thank you so much, Tracy.

12 It's wonderful to be here. It's  
13 wonderful to see so many new faces and also a lot  
14 of familiar faces, or in Marty's case a familiar  
15 t-shirt.

16 I have worked on this -- in this area  
17 for many years prior to coming to USDA in 2011, when  
18 I came in working for Deputy Secretary Kathleen  
19 Merrigan and then moved over to be senior advisor  
20 to Secretary Vilsack a couple years later. I just  
21 joined AMS in February of this year, and I could  
22 not be more thrilled to have landed in this agency.

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1 I have gotten up to speed quite quickly  
2 on the work that the Board does and just want to  
3 thank the members of the Board and welcome the  
4 incoming members for all of the time and effort that  
5 you've put into this very important work.

6 And I also want to thank every else in  
7 the audience for being here as well. It is so  
8 important that you are here and engaging, and we  
9 really appreciate that. Public participation,  
10 including meetings like this, is really vital to  
11 the process that all of us are invested in as we  
12 work to protect the integrity of the organic seal.

13 As I mentioned, this is work that's very  
14 close to my heart. I grew up in a small community  
15 of about 700 people just south of the White Mountain  
16 National Forest in New Hampshire. My next door  
17 neighbors were early certified organic farmers,  
18 and I grew up working on their farm.

19 It's a small operation. They do mostly  
20 direct to consumer, a little bit of restaurant and  
21 retail. And they have one spouse working off the  
22 farm. But through both good times and bad, they

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1 have always maintained their organic  
2 certification. And in talking with them and in  
3 working on the farm I came to learn the value of  
4 that certification in terms of the practices that  
5 it represents and in terms of the market  
6 opportunities that it creates. And that's really  
7 a lot of what drives me in the work here and one  
8 reason why I'm so excited to now be in a position  
9 to be able to work closely with our National Organic  
10 Program.

11 USDA strongly supports organic  
12 agriculture and we are committed to establishing  
13 a level playing field that protects all organic  
14 farms and businesses. I'm going to talk a little  
15 bit more broadly about this in a moment, but I want  
16 to start with a timely and specific example.

17 One of my first acts as administrator was to  
18 sign the proposed rule on organic livestock and  
19 poultry practices, which was published about two  
20 weeks ago, and aims to clarify how organic  
21 producers and handlers must treat livestock and  
22 poultry to ensure their health and well-being

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1 throughout life, including transport and  
2 slaughter.

3 This proposal grew out of a number of  
4 recommendations from the NOSB, and the Board's work  
5 was vital to the development of the rule. The rule  
6 is intended to strengthen consumer confidence in  
7 the organic label and to provide clear and fair  
8 guidance to livestock and poultry producers so that  
9 they can benefit from the economic opportunities  
10 that the organic market provides.

11 The proposed rule is one example of what  
12 makes our work in organic so impactful, and that's  
13 the fact that it's a process -- as Tracy mentioned  
14 -- that we engage in together. The rule grew out  
15 of a number of recommendations, as I said, from the  
16 NOSB, as well as extensive input from the organic  
17 community and stakeholders. We've taken  
18 that input and developed a proposal that we think  
19 is responsive, but the process does not end here.  
20 I hope you'll take the time to submit public  
21 comments and review the proposal. That's the best  
22 way to improve the final rule.

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1           Throughout the history of the Organic  
2 Program, yours and others' engagement in the  
3 rulemaking process has been vital to shaping the  
4 very meaning of organic. It's something that we  
5 all have ownership over as a result of that  
6 engagement. And in turn, that shapes the value  
7 that it provides to farmers and ranchers, to  
8 businesses and to communities. I'm very excited  
9 to engage with you all as we move forward with this  
10 important piece of the work, and I thank you for  
11 your partnership on it.

12           I also want to acknowledge --- and  
13 you'll sort of sense a theme here -- how important  
14 your engagement and partnership have been to  
15 shaping USDA's overall work in support of organic  
16 agriculture. The organic community recognized a  
17 need to make organic certification more  
18 accessible, affordable and attainable, and in 2013  
19 USDA launched the Sound and Sensible Initiative,  
20 which has helped to streamline the certification  
21 process, to strengthen our enforcement activities  
22 and has boosted our work with farmers and

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1 processors to correct small issues before they  
2 become large ones.

3 In partnership with 14 organizations  
4 around the country, we also published a series of  
5 Sound and Sensible resources to help farmers and  
6 ranchers become familiar with the requirements of  
7 organic certification before they engage in the  
8 process and to access educational and technical  
9 tools as they engage in it.

10 We've also recognized, as you have,  
11 that meeting the requirements for organic  
12 certification can take time, effort and money. So  
13 in partnership with state Departments of  
14 Agriculture, we offered the Organic Certification  
15 Cost Share Program. Last week we announced that  
16 a total of almost \$12 million is available to  
17 organic farms and businesses nationwide to cover  
18 up to 75 percent of an individual applicant's  
19 certification costs, to a maximum of \$750. Each  
20 state has its own guidelines and requirements for  
21 reimbursement, and so folks who are interested can  
22 work directly with their state agency. But that's

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1 just one example of the ways in which we are trying  
2 to work together to make certification more  
3 accessible.

4 I'm also very pleased that recently  
5 we've launched the Organic INTEGRITY Database.  
6 This is a modernized system for tracking certified  
7 organic operations. In the past USDA published an  
8 updated list of these operations once a year, but  
9 with the new database -- which was made possible  
10 by the passage of the 2014 Farm Bill -- organic  
11 certifiers can add new operations and report  
12 changes to existing operations at any time,  
13 allowing USDA to report updated counts of certified  
14 operations throughout the year.

15 The database is a great tool for market  
16 research. It enables stakeholders to identify  
17 market opportunities and make connections across  
18 the supply chain. It supports international  
19 verification of operator status to facilitate  
20 trade and it allows certifiers to share more  
21 accurate and timely data electronically.  
22 According to the new data there are now over 31,000

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1 certified organic producers and handlers around  
2 the world, including nearly 22,000 here in the  
3 United States.

4 In addition to the data on operations  
5 that we're now providing through the Organic  
6 INTEGRITY Database, *AMS Market News* is now  
7 publishing pricing data across the country for over  
8 250 different organic products, to help bring  
9 greater transparency to the marketplace.

10 USDA also continues to expand markets  
11 for American organic products abroad, adding to the  
12 list of agreements that increase market access for  
13 U.S. producers. During this administration,  
14 we've secured trade arrangements for organic  
15 products with Canada, the European Union, Japan,  
16 Korea and Switzerland.

17 We also know from talking with you that  
18 there are a lot of USDA programs that are critical  
19 to organic producers and over which AMS has very  
20 little control -- things like crop insurance,  
21 credit, on-farm research activities. It's so  
22 important to the success of organic producers that

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1 the USDA is integrating organic priorities across  
2 all of our agencies, and that all of these pieces  
3 of the puzzle are working for organic.

4 So for a number of years AMS has  
5 invested in a full-time employee -- Betsy Rakola,  
6 who I know many of you know, who's going to speak  
7 to you shortly -- to work across USDA so that the  
8 whole institution can better meet the needs of the  
9 organic sector. I'm not going to go into detail  
10 about the accomplishments we've been able to make  
11 there, because she's going to be talking to you  
12 about them, but suffice it to say I think we've seen  
13 unprecedented change within the institution of  
14 USDA over the last six or seven years as a result  
15 of this work, which has been very, very exciting.

16 And you can find a lot of the  
17 information about cross-USDA efforts to support  
18 organic through the National Organic Program and  
19 the One-Stop Shop we've created at  
20 [usda.gov/organic](http://usda.gov/organic).

21 I also just quickly want to mention  
22 because this used to be my job when I was in the

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1 Secretary's office that the Department also has a  
2 full-time senior staff person doing the same type  
3 of work across USDA to support local and regional  
4 food systems. This position has been a  
5 term-limited political appointment. We're soon  
6 going to be advertising to make it a permanent  
7 career position, just like Betsy's, which I think  
8 is going to help institutionalize all of this work  
9 as we transition across administrations.

10 Many organic producers, like my  
11 neighbors in New Hampshire, get their start or stay  
12 in local markets, and it's really critical that  
13 they have access to tools like crop insurance that  
14 accurately reflects the value of their crops,  
15 research relevant to diversified smaller scale  
16 operations, and local or regional supply chain  
17 infrastructure that's scale- appropriate to help  
18 bring their products to market.

19 We've made tremendous progress in this  
20 regard across USDA, making over \$1 billion in local  
21 food investments since 2009, and I know this is  
22 progress that benefits many in the organic

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1 community as well.

2 Now, USDA and AMS provide a lot of  
3 support for organic agriculture, but the National  
4 Organic Program's focus is on protecting the  
5 integrity of the USDA organic seal, and this means  
6 clearly defining what it means to be organic and  
7 enforcing those rules. The NOP is dedicated to  
8 that mission through its work on standards  
9 development, accreditation of certifying agents,  
10 oversight of organic trade arrangements, and the  
11 ongoing work that we do on compliance and  
12 enforcement.

13 This is something that's particularly  
14 important to me in this role as the AMS  
15 administrator. It's through enforcement that we  
16 can ensure that consumers are getting organic  
17 products that comply with USDA organic regulations  
18 and that all organic producers and handlers have  
19 a fair market place in which to operate.

20 I'm now going to turn things over to  
21 Betsy to talk a little bit about her work as the  
22 Department's organic policy advisor and some of the

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1 accomplishments that we've seen through the  
2 Organic Working Group, and how these organic  
3 priorities are being integrated across USDA.

4 But again, I really want to thank you  
5 for having me here today. I wish you a very  
6 productive meeting. I particularly want to thank  
7 the members of the NOSB for your service. And  
8 again, I thank everyone in the room for your  
9 engagement. It is so important. I look forward  
10 to seeing the outcomes of the meeting and to  
11 partnering with you in the months to come. Thank  
12 you.

13 (Applause.)

14 MS. RAKOLA: Good morning, everyone.  
15 Good morning to the Board. Thank you for having  
16 me here. Again, my name is Betsy Rakola. I am the  
17 organic policy advisor to the Secretary and my  
18 job -- Miles and I often describe it that sort of  
19 my job picks up where his leaves off, that I work  
20 with the pieces of USDA beyond the NOP to try to  
21 institutionalize support for organic agriculture  
22 throughout the Department.

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1 I see a lot of familiar faces. I saw  
2 a lot of hands up for those of you who are here for  
3 the first time. So whether you're an old hat or  
4 a newbie, we're glad that you're here. For those  
5 who don't know me, I have been with USDA for about  
6 six years. And prior to my current role I was a  
7 part of the National Organic Program, first  
8 managing the Certification Cost Share Programs and  
9 then as an accreditation auditor.

10 So I'm going to cover a lot of  
11 information very quickly out of respect for time.  
12 I want to make sure that we're talking less and  
13 listening more. So all that to say that there is  
14 going to be a lot of information here, and if anyone  
15 has any questions I will be here today and tomorrow,  
16 and I do have my email at the end of the  
17 presentation. I'd be happy to follow up with you  
18 on it. But I just want to give a very quick and  
19 broad overview of what's going on across the  
20 Department.

21 So the broad framework for what we do  
22 on organic agriculture is encapsulated in USDA's

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1 Strategic Plan, which actually does have specific  
2 goals for organic agriculture. The main metric  
3 that we have is to achieve 20,000 certified organic  
4 operations in the United States by 2018. For those  
5 who were listening closely to Elanor's remarks, you  
6 may have heard that we actually blew that out of  
7 the water. We achieved it two years early and  
8 we've already exceeded that goal. So we're very  
9 excited about that.

10 But I think the plan does lay out a great  
11 strategy for how it is that we want to support the  
12 sector. So we focus on research and education,  
13 outreach through our field offices and risk  
14 management tools with a broad goal of reducing  
15 paperwork and making certification simpler, more  
16 sound and sensible, so that the organic market is  
17 accessible to small and beginning farmers.

18 So we do this through a structure that  
19 we call the Organic Working Group. The working  
20 group is internal to the USDA. Elanor Starmer, our  
21 AMS administrator, is the executive leader of the  
22 working group, and we have members from all of our

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1 different agencies. And we set various goals. We  
2 have teams working on different themes all trying  
3 to come together across what often end up sort of  
4 being silos in the Government, making sure that we  
5 can collaborate to make sure that we're supporting  
6 organic and providing organic producers and  
7 handlers with the programs and services that they  
8 need to succeed.

9 I want to highlight the fact that we  
10 often welcome external speakers. We have a number  
11 of informal brown bag lunches or other  
12 presentations, so if you're ever in the D.C. area  
13 and you have some information that you'd like to  
14 share with us, please reach out to me. We'd love  
15 to have you. It's always great to have fresh faces  
16 and some outside voices to let us know what's  
17 happening out in the field.

18 So a quick run through some of the  
19 accomplishments that we've had recently at USDA,  
20 starting with our marketing programs.

21 Earlier, I believe just at the end of  
22 2015, we passed what's called the Organic Exemption

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1 Rule. So this was something that was laid out in  
2 the Farm Bill to extend the exemption for organic  
3 producers and handlers from our research and  
4 promotion programs and our marketing orders.

5 So previously the exemption only  
6 applied to those producing and handling solely  
7 organic products and now it applies to anyone who  
8 is producing or handling organic products. We're  
9 very happy to have that benefit for the organic  
10 sector.

11 We've had a number of accomplishments  
12 in our conservation programs. Our Natural  
13 Resources Conservation Service has done a lot to  
14 bridge the gap between conservation planning and  
15 organic agriculture. The capstone of this was  
16 really the "National Organic Farming Handbook,"  
17 which was published this last summer that clearly  
18 walks through the conservation practices  
19 established by the NRCS and lines them up with  
20 organic farming regulations. It's a great tool  
21 that makes it clear for both our field-based  
22 conservation planners and organic producers, how

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1 these things work hand-in-glove. And it includes  
2 a wealth of helpful resources to figure out how to  
3 get from idea to on-the-ground implementation.

4 We've also done a lot in terms of  
5 capacity building with a focus on our field staff.  
6 There is an ongoing webinar series that is open to  
7 the public that targets NRCS staff talking about  
8 a number of topics. And last year we focused on  
9 the environmental benefits of organic agriculture.  
10 Anyone who's interested in that can go to the NRCS  
11 web site, and you're welcome to sign up.

12 We also recently launched a new  
13 initiative for trying to provide more conservation  
14 buffers on organic acres. The Farm Service Agency  
15 manages the Conservation Reserve Program.  
16 They've set a target for 20,000 acres to be in  
17 buffers on organic farms. These buffers can plant  
18 trees or shrubs. They cost share the  
19 implementation. There are initiatives for  
20 pollinator habitat and wildlife habitat. We're  
21 excited about this. I think it's a great example  
22 of creative use of our existing programs and our

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1 existing authorities, but targeted toward  
2 supporting the organic sector.

3 We've also seen a lot of progress in our  
4 Risk Management and Disaster Assistance Programs.  
5 So I won't go through this in depth, but just to  
6 say when I came to USDA in 2010, we actually didn't  
7 have any crop insurance programs that were  
8 specifically targeted to the organic sector. We  
9 now have three different flavors of crop insurance  
10 that cover several dozen crops, and most recently  
11 we announced an initiative where those who have a  
12 contract to get premium prices during the  
13 transition years to organic can now get a crop  
14 insurance product that reflects those premium  
15 prices. All of these tools are really important  
16 to make sure that organic producers have the tools  
17 that they need where if a disaster does hit, they're  
18 made whole at prices that reflect what they would  
19 expect on the organic market.

20 We're also working very hard to expand  
21 our Non-insured Disaster Assistance Program in a  
22 similar direction. NAP picks up where crop

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1 insurance leaves off, and the Farm Service Agency  
2 has allowed the program to establish separate  
3 prices for those who are getting a premium by  
4 selling direct to the market or by selling on the  
5 organic market. So it is a challenging area just  
6 because the data are hard to get here, but the FSA  
7 team is dedicated to providing solutions to those  
8 sectors.

9 So moving a little bit to data and  
10 analysis. We've had a lot of developments and  
11 continue to develop more products in this area as  
12 well. Both last year and this year the National  
13 Agricultural Statistics Service conducted organic  
14 producer surveys. For those of you who are  
15 familiar with any surveys or ag censuses, this is  
16 the first time that we have ever had two years of  
17 consecutive data on the organic sector. And I  
18 can't underscore enough how important that is to  
19 be able to understand what is happening in the  
20 organic marketplace and then develop programs that  
21 are appropriately tailored to it.

22 NASS has also underway with the organic

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1 certifier survey right now collecting crop acreage  
2 numbers and livestock head numbers. I know that  
3 the producer survey will be published in September.  
4 We don't have a date yet for the certifier survey,  
5 but that should be coming out soon. And for anyone  
6 who works with farmers, please encourage them to  
7 fill out the survey. A high response rate is  
8 incredibly important.

9 So why is this important? How does  
10 this help us? What I've really seen is that we now  
11 have the data to tell the story that we've always  
12 assumed to be true that we can now support with  
13 numbers on the importance of the organic sector.

14 So from the agriculture census some of  
15 the points I always hit are that we're now able to  
16 conclusively say organic farmers are more likely  
17 to be beginning, are more likely to be new to the  
18 farm. They are definitely younger on average than  
19 other farmers and they're more likely to  
20 participate in direct-to-market sales. So those  
21 link up with a lot of other interests that folks  
22 have around USDA and generally in the agricultural

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1 policy world.

2 We've also been able through economic  
3 analyses to determine that organic producers are  
4 less likely to work off the farm, which I think is  
5 a huge success story for the sector and, in  
6 particular with an analysis we had coming out of  
7 our Economic Research Service, determined that the  
8 profit of organic row crops -- corn, wheat and soy  
9 in this case -- is in fact higher than what it is  
10 in conventional. So we've got good stories in  
11 terms of bringing the next generation back to the  
12 farm and providing a stable farm income for the  
13 future.

14 We're also working to support research.  
15 We know how important it is to have appropriate  
16 technology and on-farm research solutions for  
17 organic producers. So we are working with our  
18 research granting agencies to incorporate language  
19 on organic agriculture, in some of our more  
20 traditional research programs making sure that our  
21 requests for applications make it clear that  
22 proposals on organic agriculture are welcome

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1       there.  And we are continuing to incorporate the  
2       research priorities that are passed by the National  
3       Organic Standards Board into our core organic  
4       research programs, so that they're explicitly  
5       called out in our requests for applications there.

6                Lastly, I want to touch quickly on our  
7       training and outreach efforts, which are a big  
8       focus of what we do with the Organic Working Group.

9                We recently had some great tools come  
10      out of an external partner through one of our grants  
11      to the University of Minnesota, where we have some  
12      new tools looking at how to transition to organic  
13      agriculture.  So for those who haven't seen these,  
14      there's a business planner with a companion set of  
15      farm profiles.  Everything is available on  
16      eOrganic.  This is the result of a either four or  
17      five-year grant focusing on helping farmers make  
18      that leap from conventional to certified organic  
19      production.

20               And lastly, I always have to highlight  
21      our accomplishments with our organic literacy  
22      initiative.  This is something that we rolled out

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1 in 2012 and updated just last year where we focused  
2 on internal education at the USDA, making sure that  
3 all of our staff understood the fundamentals of  
4 organic agriculture. I'm proud to say we've  
5 reached over 30,000 people both around the country  
6 and the world through this, and it continues to be  
7 a great way for us to centralize all of our  
8 resources and really showcase what it is that we're  
9 talking about with organic and to get the word out  
10 very quickly and easily to all of our staff.

11 So again, I know that was quite a bit  
12 of information, but I am here both today and always  
13 as a resource. And please do think of me as such.  
14 I always say I can only do my job if I hear from  
15 you and know what the needs are of the community.  
16 So my email is up there. Again the web site that  
17 Elanor mentioned of our organic portal, and I'm  
18 always happy to take questions. Thank you.

19 (Applause.)

20 CHAIR FAVRE: Do we have any questions  
21 from the Board for Betsy?

22 (No response.)

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1                   CHAIR FAVRE: Great. Thank you very  
2 much. Before we proceed, I'd like to introduce a  
3 couple of other NOP staff members that are hiding  
4 back behind this pillar over here. Not  
5 intentional, I assure you.

6                   Dr. Paul Lewis is the head of the  
7 Standards Division and Dr. Lisa Brines is the  
8 national list manager.

9                   If you guys will wave to the audience?  
10 Okay. Thanks.

11                   And a quick couple of housekeeping  
12 items before we go to the NOP's update. The first  
13 thing is we operate on a combination of Robert's  
14 Rules of Order and tradition here, and with the  
15 objective to create an open environment for  
16 discussion. And we have a very packed agenda  
17 today. I'm going to ask that we all do our best  
18 to stay on track, which we're already not on track.

19                   (Laughter.)

20                   CHAIR FAVRE: And then we'll also be  
21 doing our morning breaks and ask everybody to  
22 return promptly from lunch.

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1                   And next I'd like to have Lisa de Lima  
2 bring us the Secretary's report.

3                   MEMBER DE LIMA: So at this time I'd  
4 like to ask the Board if they have any changes or  
5 corrections to the meeting summary of our fall  
6 meeting in Stowe, Vermont.

7                   (No response.)

8                   MEMBER DE LIMA: Hearing none, we  
9 accept that summary as official record.

10                  CHAIR FAVRE: Thank you, Lisa.

11                  Okay. Now I'd like to turn it over to  
12 Deputy Administrator Miles McEvoy.

13                  Thank you, Miles.

14                  MR. McEVOY: Okay. So I'm going to  
15 talk a lot about things that are happening at the  
16 National Organic Program, both past, present and  
17 future.

18                  First of all, National Organic Program,  
19 our mission is to ensure the integrity of USDA  
20 organic products in the United States and  
21 throughout the world, so this is a global program.  
22 So we ensure that all products that are so labeled

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1 or represented as organic in the United States meet  
2 our standards. So that means that we're not only  
3 overseeing the certifiers operating in this  
4 country, but doing that for the certifiers  
5 operating in other countries as well. The  
6 equivalency arrangements, making sure that they  
7 are effectively implemented.

8 Our vision, organic integrity from farm  
9 to table. Consumers trust the organic label, so  
10 it's not just at the farm level. We have to make  
11 sure that organic standards are maintained at each  
12 step in the production and distribution and  
13 handling aspects, so that when consumers see that  
14 USDA organic label in the marketplace they can be  
15 assured it meets those standards. So we are a  
16 regulatory program implementing the Organic Foods  
17 Production Act and the USDA organic regulations.

18 So just briefly, we have a number of  
19 different responsibilities: developing and  
20 maintaining the organic standards, accrediting and  
21 overseeing third party organic certifying agents.  
22 They're the ones that do the actual reviewing,

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1 inspecting and approving of organic producers and  
2 handlers.

3 We implement and maintain  
4 international organic trade arrangements. We  
5 investigate complaints of violations. For  
6 instance, uncertified farmers selling food as  
7 organic or selling conventional food products as  
8 organic.

9 And of course we support the work of the  
10 National Organic Standards Board in very -- simply  
11 there's around 80 accredited certifying agents  
12 that work worldwide, over 31,000 certified organic  
13 operations. You have to also keep in mind that of  
14 those certified organic operations, many of the  
15 ones in foreign countries are grower groups that  
16 can consist of hundreds or thousands of farmers  
17 involved in one certified operation. In 2014, \$39  
18 billion in U.S. organic sales. So this is a huge  
19 part of American agriculture and very important  
20 that there is this oversight to ensure that  
21 integrity.

22 So in general, we have five areas that

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1 we focus on in our Strategic Plan. First and  
2 foremost, protecting organic integrity, market  
3 access. And when we talk about market access, it's  
4 not just in terms of international market access,  
5 but for that local and regional access, making sure  
6 that farmers have the tools that they need to obtain  
7 certification and get into the organic  
8 marketplace.

9 Clear standards are critical to have  
10 standards that are enforceable, so we continually  
11 work on improving the standards, clarifying the  
12 standards and working with the National Organic  
13 Standards Board on that.

14 Building technology that advances  
15 organic integrity. That's about the Organic  
16 INTEGRITY Database, making sure that we're using  
17 technology to improve the oversight and audit  
18 trails of organic product.

19 And then people and process. Making  
20 sure that we have the staff that are trained and  
21 motivated to do the work and that our processes of  
22 doing the work are effective and efficient to best

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1 utilize the funds that are appropriated for the  
2 program.

3 So a little bit on -- a little more  
4 details on protecting organic integrity. A lot of  
5 you have probably seen this slide before, but we  
6 think of 10 specific points of organic integrity.

7 Clear enforceable standards. If the  
8 standards are clear, then it's easier for producers  
9 and handlers to comply with those standards, if  
10 they understand them.

11 Communicating about the standards. If  
12 there's any changes to the standards so that people  
13 don't get caught in not knowing that something has  
14 changed.

15 Transparency. Having that input  
16 through the National Organic Standards Board and  
17 in any of our rulemaking or guidance development,  
18 that -- having a transparent process, public input.

19 Certification. The core business  
20 process of the organic sector. We're involved  
21 with reviewing applications, Organic System Plans,  
22 quality inspections, unannounced inspections.

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1 All the work that certifiers do to make sure that  
2 it's thorough and complete when they're doing that  
3 work.

4 Complaints. That there's an effective  
5 complaint process so that when people see things  
6 that they feel are out of compliance there's an  
7 effective way to file those complaints.

8 Penalties for violations that are  
9 appropriate for the type of penalty that has  
10 occurred. Many of the violations are correctable  
11 violations, but when they are more serious, then  
12 there are civil penalties and even more severe  
13 penalties for violating the organic standards.

14 Market surveillance so that there's  
15 oversight in the marketplace. This is one area  
16 that we haven't done a lot of work in. We do have  
17 a project starting this year to look at a couple  
18 of commodities in terms of surveillance testing of  
19 those products for pesticide residues, but that's  
20 one area that certainly needs more development in  
21 the National Organic Program.

22 Unannounced inspections. That's now a

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1 regular part of how certifiers do their work.  
2 They're doing -- five percent of the operations on  
3 an annual basis are inspected on an unannounced  
4 basis. Periodic residue testing is now a  
5 requirement that certifiers are testing at least  
6 five percent of the operations that they certify  
7 on an annual basis.

8 And then concept of continual  
9 improvement, that there's always looking at your  
10 systems through an isotype of lens of auditing  
11 yourselves, internal/external audits, identifying  
12 areas to improve how we can do a better job in the  
13 certification, in the accreditation and the  
14 enforcement arena.

15 So a little bit of data on compliance  
16 and enforcement. This shows fiscal year 2015 in  
17 terms of the totals in the first quarter of 2015,  
18 or actually two quarters of 2015. So half of 2015.  
19 So in terms of incoming complaints we had over 500  
20 complaints last year. This year we received a  
21 little under 200, so a little bit less in terms of  
22 what's coming in this year from last year.

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1 Completed complaints last year, 390; 175 have  
2 already been completed this year so far, so it looks  
3 like we may get close to the same numbers as last  
4 year in terms of completed complaints.

5 But one of the things that's a little  
6 bit troubling about the numbers is that the number  
7 of complaints coming in exceeds the number that are  
8 being completed. So we have work to do to catch  
9 up to the incoming complaints.

10 In terms of types of actions we have  
11 taken on the complaints. Cease and desist orders,  
12 36 last year; 14 so far this year. Notice of  
13 warning, 121 last year, 54 this year. Civil  
14 penalties last year eight, five already this year.  
15 There were 1.8 million in civil penalties levied  
16 last year; \$946,000 in civil penalties this year.

17 So some of the other things that we're  
18 doing to get more information about what we are  
19 doing in compliance and enforcement is posting our  
20 enforcement documents. So it highlights the  
21 enforcement actions that we have taken. We want  
22 to do this to increase transparency so that

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1 operations know there are serious consequences for  
2 violating the organic standards. Enforcement  
3 records involve both certified and uncertified  
4 operations that have violated the organic  
5 standards.

6 So the documents that have been posted  
7 so far are 6 settlements that we've finalized this  
8 year, 3 Agricultural Marketing Service  
9 administrator decisions that were finalized this  
10 year, 25 ALJ decisions and orders from 2004 through  
11 2016; so that's over a long period of time, and a  
12 link to all judicial officer decisions and orders  
13 since 2004. So this is our first step at getting  
14 this information posted and we plan to post both  
15 new and historical documents as we move forward.

16 Some notable enforcement actions that  
17 we've taken in the last few months. Earlier in  
18 April Yorgo, which is a hummus manufacturer in New  
19 England, they agreed to pay a \$340,000 civil  
20 penalty and a three-year suspension for sale of  
21 products as organic without certification. This  
22 was a case where the operation had violated the

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1 standard, they signed a settlement agreement, they  
2 violated the settlement agreement and the end in  
3 this case is a \$340,000 civil penalty and a  
4 three-year suspension.

5 The other significant case is Saul  
6 Farms, which was handled by the Department of  
7 Justice. March 30th Bernard Saul pleaded guilty  
8 to wire fraud and money laundering. So this is an  
9 example of when we get to more serious violations  
10 of criminal activity. We don't have that  
11 authority within the National Organic Program.  
12 That is handled by the Office of the Inspector  
13 General or the Department of Justice. So we worked  
14 closely with them as they worked on this case.  
15 That's for the sale of conventional alfalfa seed  
16 as organic. So Idaho State Department of  
17 Agriculture also worked very closely with the USDA  
18 Office of the Inspector General on this  
19 investigation.

20 Freedom of Information Act is one of the  
21 very important activities that we're responsible  
22 for. Since 1967 the Freedom of Information Act has

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1 provided the public the right to request access to  
2 records from any federal agency. Federal agencies  
3 are required to disclose any information requested  
4 under FOIA unless it falls under one of nine  
5 exemptions which protect interests such as  
6 personal privacy, national security and law  
7 enforcement. So for instance, we do not -- ongoing  
8 investigations, those fall under one of those nine  
9 exemptions.

10 FOIA also requires agencies to  
11 proactively post online certain categories of  
12 information, including frequently requested  
13 records. So that's part of our job of trying to  
14 get more information out through the AMS Reading  
15 Room so there's more information available.

16 Congress, the President and the Supreme  
17 Court have all recognized that FOIA is a vital part  
18 of our democracy. President Obama and the  
19 Department of Justice have directed agencies to  
20 apply a presumption of openness in responding to  
21 FOIA requests and AMS works in a spirit of  
22 cooperation with all FOIA requesters.

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1           So FOIA requests are a processed with  
2           20 days, so that's a very tight time frame, about  
3           a month. That's 20 business days for us to respond  
4           to those FOIA requests. All NOP staff are  
5           responsible for identifying the response of  
6           records in a FOIA request. Records must be  
7           reviewed that are identified to ensure that they  
8           are responsive records and to redact any  
9           information that falls under those nine FOIA  
10          exemptions.

11           Some FOIA requests are very  
12          straightforward and others -- or many actually  
13          involve hundreds or even thousands of pages and  
14          years of records. So this is a very large job for  
15          the National Organic Program to provide these  
16          records under FOIA. Currently we have two staff  
17          members that are dedicated to FOIA and additional  
18          staff support as needed to address these FOIA  
19          requests.

20           Okay. Moving on to the National  
21          Organic Standards Board. The NOSB is a federal  
22          advisory committee. It assists and advises USDA.

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1 It has a charter with established mission and  
2 duties, a designated federal officer,  
3 subcommittees and chair, and opportunity for  
4 public participation. These are all governed by  
5 the Federal Advisory Committee Act.

6 There's a charter that under the  
7 Federal Advisory Committee Act that is in effect  
8 for two years. We're in the process of renewing  
9 that charter so that the NOSB can continue to  
10 operate. We plan to have the renewed charter  
11 posted very soon since the existing charter expires  
12 on May 8th, I believe.

13 Call for nominations. So we have six  
14 new wonderful board members at this meeting. For  
15 next year we'll have an additional five new board  
16 members. So there's an open call for nominations,  
17 open until June 3rd for one organic producer, one  
18 individual with expertise in environmental  
19 protection and resource conservation, one  
20 scientist, one handler or processor and one  
21 representative of a public interest or consumer  
22 interest group.

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1                   So please think about applying to be on  
2                   the National Organic Standards Board, or if you  
3                   know folks that are interested in organic policy  
4                   or the organic sector, please encourage them to  
5                   apply for these positions.        The written  
6                   nominations must include a cover letter, résumé and  
7                   required form, but please encourage people to  
8                   apply.  It's really quite an honor and I think most  
9                   of the board members most of the time have a really  
10                  great experience.  And there are flyers on the  
11                  table for more information.

12                  A summary of NOSB recommendations.  So  
13                  the Board has been in operation for more than 20  
14                  years now.  In terms of practice standards, those  
15                  are the non-National List standards.  There's been  
16                  178 recommendations.  A hundred and forty-nine of  
17                  those have been addressed and 24 are in process.  
18                  For instance, aquaculture and animal welfare are  
19                  in process.  We actually have quite a few of the  
20                  outstanding recommendations that are in process in  
21                  terms of us addressing.

22                  There        are        five        outstanding

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1 recommendations that we're not currently working  
2 on. That includes expiration dates on  
3 certificates, which would create an annual  
4 certificate rather than the certificates that now  
5 do not expire. Inspector qualifications. We  
6 have some work that's been done on inspector  
7 qualifications, but more to come on that. Retail  
8 compliance and certification. We haven't  
9 addressed that one yet. Mushrooms, which is an old  
10 NOSB recommendation from 2002. We did some work  
11 on that a few years ago, but we're not currently  
12 working on that. And then a recent GMO prevention  
13 strategy guidance. So the good news is is that  
14 there's many of these other recommendations that  
15 are in the process of being addressed.

16 In terms of the National List and  
17 sunset. On a National List there's been 280  
18 recommendations; 254 of those have been addressed.  
19 Most of the ones that have not been addressed are  
20 very recent and those are in process. We have a  
21 docket working its way through the system for 21  
22 substances. Sunset, 129 reviews have been

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1 completed. There is an outstanding issue of  
2 sodium nitrate that we did discuss at the National  
3 Organic Coalition meeting yesterday.

4 Hydroponics. 1995, NOSB recommended  
5 that hydroponic production in soilless media to be  
6 labeled organically produced shall be allowed if  
7 all provisions of OFPA have been met. 2005, NOP  
8 confirmed that hydroponic operations may be  
9 certified organic if produced in compliance with  
10 the regulations. 2010, NOSB stated that a  
11 recommendation that USDA shouldn't allow organic  
12 crops to be produced hydroponic methods. And  
13 2015, we established the Hydroponic/Aquaponic Task  
14 Force. So you'll hear from two members of that  
15 task force later this morning.

16 So that task force has been set up to  
17 report on the compatibility of  
18 hydroponic/aquaponic systems and the Organic Foods  
19 Production Act and USDA organic regulations and  
20 provide a report to NOSB that we hope to have early  
21 this summer that looks at current hydroponic and  
22 aquaponic production methods and whether these

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1 practices align with OFPA and the USDA organic  
2 regulations.

3 We've done some work on surveys in terms  
4 of how many of these organic hydroponic operations  
5 are there out there. In 2010 we did a survey of  
6 certifiers. We did not define what hydroponics  
7 was in that particular survey and the results that  
8 we received in 2010 may have included hydroponic,  
9 aquaponic and container-based production systems  
10 because there's a continuum between soil-based and  
11 hydroponic systems, and some container-based  
12 systems may have been considered hydroponic-based  
13 systems in the 2010 survey. And at that point no  
14 certification of aeroponics was reported.

15 So recently we did a survey of  
16 certifiers and we defined what hydroponic systems  
17 are. As you can see there, we also define what  
18 container-based production systems are and there  
19 was no reported certification of aeroponic systems  
20 in this survey.

21 The numbers are here. In the 2010  
22 survey eight certifiers were certifying hydroponic

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1 operations and there were 39 certified hydroponic  
2 operations reported. But again, remember that  
3 these were -- it wasn't defined, so they may -- some  
4 of those 39 may have included container-based  
5 systems.

6 In the 2016 survey 17 certifiers  
7 reported certifying hydroponic and/or aquaponic  
8 operations, 30 certified organic hydroponic  
9 operations, 22 aquaponic operations, 69 certified  
10 container-based operations. And the crops being  
11 produced are quite broad: herbs, greens, tomatoes,  
12 peppers and other mixed vegetables, pea shoots,  
13 microgreens, watercress, berries and edible  
14 flowers.

15 And then where this is occurring is all  
16 over the place. So California, Mexico, the  
17 Netherlands, North Carolina, Virginia. So all  
18 over the country there are examples of certified  
19 organic hydroponic or aquaponic operations.

20 So I see some people taking pictures.  
21 These slides will be posted online hopefully later  
22 today so that you can get the numbers.

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1           Okay.       Moving onto the Organic  
2 INTEGRITY Database that Administrator Starmer  
3 talked about.   We're very excited about this  
4 database.   We continue to make improvements to the  
5 database.   It's much better than the Excel  
6 spreadsheet that we had last year.   I mean, that  
7 had a lot of information, but this is something that  
8 is maintained and kept up much more up to date by  
9 the certifiers.   They have the way of providing  
10 information on a more timely basis.

11           The funding for this was provided by the  
12 2014 Farm Bill.   It's separate funding from the  
13 National Organic Program.   It's a \$5 million pot  
14 of money that we have available until 2018.   We've  
15 used about half of those resources, so we still have  
16 some significant resources to make improvements to  
17 the INTEGRITY Database.

18           In the first release that came out in  
19 the fall there's a lot of different features.   I'm  
20 not an IT person, so I don't know if I can explain  
21 all these things, but there's a certifier account  
22 management.   There's a way for certifiers to talk

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1 to this database in different ways. They can send  
2 in Excel sheets. There's some kind of portal which  
3 exchanges data and information. We do provide  
4 more information fields for the certifiers to fill  
5 in so they can provide more data.

6 We have new product list and  
7 classifications, so this is really important to  
8 standardize the terms so you can find things, that  
9 there's not a lot of misspelled words. But a lot  
10 of this really depends on the work of the certifiers  
11 on that data quality, making sure that they're  
12 using similar terms and taxonomy.

13 And then we have better search  
14 capability for getting information or requesting  
15 information from the database. And there are  
16 monthly data reports that will be expanded. So  
17 this is what it looks like. It's probably a little  
18 small for those of you in the back, but there's the  
19 list of the certifier, the name of operation, all  
20 the different crops that they have. And this will  
21 continue to be improved over the coming year and  
22 next year.

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1           So our planned enhancements to this  
2 include advanced search enhancements, search by  
3 operation status so you can determine when they  
4 were -- how long they've been certified, improved  
5 product level search capacity, exact word  
6 searches, the certifier profile. So there will be  
7 a feature to find a certifier if you're looking for  
8 certain attributes for a certifier in Mississippi  
9 or in Bolivia. You can have those kinds of  
10 resources.

11           Complete flat file data export from  
12 search results. The IT people explained to this  
13 to me. They say it's really important and the  
14 certifiers would love this, but I'm not sure I  
15 exactly understand what that means. But  
16 supposedly it's a really good thing.

17           Operation certificate module. So  
18 that's what we plan to release at the end of the  
19 year, or at the end of the fiscal year, is the  
20 ability or certifiers to issue a federalized  
21 certificate from the database. One of the  
22 problems in terms of enforcement and oversight is

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1 that of those 80 accredited certifiers they each  
2 have their own certificate. So as we work with  
3 other federal agencies and foreign governments  
4 it's very difficult, because all these  
5 certificates look different and they don't have the  
6 same format.

7 So we are really -- want to move to a  
8 one form certificate, that all certifiers use the  
9 same certificate rather than have these  
10 individualized certificates because that will make  
11 it easier for our partners in APHIS for checking  
12 imports or foreign governments to be able to  
13 actually see that a certificate is a valid  
14 certificate. We're also looking at electronic  
15 certificates as we move into the future. We're  
16 working very closely with certifiers to improve  
17 data quality and encourage frequent data uploads.

18 Okay. Sound and Sensible. We have a  
19 number of new education and outreach tools. As  
20 Elanor Starmer said, this has been an issue for the  
21 last few years. The whole concept is to make  
22 certification affordable, accessible and

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1 attainable.

2           There were 14 projects awarded to 13  
3 organizations all over the country, a whole bunch  
4 of different types of tools that are available to  
5 certifiers and organizations that are doing  
6 outreach to the agricultural community. So some  
7 things are for getting information out about what  
8 is organic. Others are about the actual specifics  
9 about how to be successful in producing organic  
10 crops.

11           So some of the examples are an  
12 interactive video that helps candidate organic  
13 farmers choose their own adventure. So this one  
14 is my favorite where you -- it's a video that has  
15 two different farmers and they -- they're both  
16 curious about organic. One's a direct-market  
17 farmer, one's a wholesale grower and they do their  
18 own little exploration of what is organic, how do  
19 I get certified, how complicated is it? We call  
20 it "The Road". It's really, really well done.

21           There's also a number of short topic by  
22 topic video clips. Florida Organic Growers has

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1 done a number of these little video clips that are  
2 quite good on a whole bunch of different topics,  
3 so encourage people to take a look at that. There  
4 are record keeping case studies for four successful  
5 record keeping models. That was a project done by  
6 Oregon Tilth. And then a train the trainer guide  
7 that walks through how to conduct a farm work that  
8 WSDA did. So this is just a short example of some  
9 of those resources that are available through these  
10 Sound and Sensible projects.

11 There were four separate launches in  
12 sort of four different buckets of concepts in the  
13 suite of projects. The first one was the organic  
14 value proposition, Why Go Organic? So if you have  
15 folks that you're trying to show them information  
16 about organic and why it's such a valuable  
17 production method, that's what's in those  
18 products. How To Resources was our second launch.  
19 Third launch was around outreach and education.  
20 And then our fourth was resources for  
21 Spanish-speaking farmers and farm workers and  
22 people working in Latin America. We have a lot of

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1 the agricultural sector is Spanish-speaking, so  
2 this has been very useful for those folks.

3 Okay. Now moving to organic  
4 standards. So over the last few months we've put  
5 out two new final guidance documents, one on  
6 substances used in post-harvest handling and one  
7 on natural resources and biodiversity  
8 conservation.

9 So the final guidance on post-harvest  
10 handling clarifies whether a substance is  
11 acceptable for use in post-harvest handling. The  
12 challenge has been on post-harvest handling is that  
13 some of the materials on the National List are under  
14 the Crop List under 601 and some are on the  
15 Processing List under 605. And post-harvest  
16 handling can be conducted either on farm or in a  
17 handling facility. So that's been other questions  
18 that we've had as well. And facility pest control  
19 can also be on-farm and also at handling  
20 facilities.

21 So we clarify that the substances that  
22 can be used are non-synthetic substances that are

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1 allowed from crop production and are not restricted  
2 on 205.602, synthetic substances that are listed  
3 in 205.601 that are specific for post-harvest use.  
4 So there are a few substances on 601 that are  
5 specifically listed for post-harvest use. Also  
6 substances listed on 605, which is basically the  
7 Handling List. According to those restrictions  
8 those are also relevant to be used on post-harvest  
9 handling. And any inert ingredients that are used  
10 in any pest-control substances must be allowed in  
11 205.601(m) or meet one of the other conditions.  
12 For instance, a non-synthetic inert ingredient  
13 would be allowed unless it was specifically  
14 prohibited.

15 In terms of facility pest management  
16 non-synthetic and synthetic substances that are  
17 listed in those various sections are allowed. EPA  
18 registered pesticide use in facilities must be  
19 registered for that use. Inerts must be either  
20 non-synthetic or be allowed on 601(m), 603(e) or  
21 605. And preventative practices apply to all  
22 handling facilities whether on or off-farm.

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1           So final guidance. Post-harvest handling  
2 puts all that information in one place. Very  
3 useful for both farmers and handlers that are doing  
4 that post-harvest handling and certifiers.

5           Natural resources and biodiversity.  
6 This addresses a few different NOSB  
7 recommendations on biodiversity. So this is a  
8 final guidance. Draft guidance came out a year or  
9 so ago. 205.200 requires operations to maintain  
10 or improve the natural resources of the operation  
11 including soil and water quality. This guidance  
12 was developed in collaboration with USDA's Natural  
13 Resource Conservation Service. It provides  
14 examples of production practices that support  
15 these conservation principles and makes that  
16 tie-in between NRCS and USDA organic regulations,  
17 between what organic farmers are doing and those  
18 conservation support programs at NRCS much more  
19 linked.

20           It also states what the  
21 responsibilities are of organic operations, that  
22 their Organic System Plan must address

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1 biodiversity and that operations that participate  
2 with NRCS can use that part of their plan for their  
3 Organic System Plan. Split operations can use  
4 non-certified land for some of the conservation  
5 efforts. And some examples -- I guess I don't have  
6 examples there.

7 Okay. So responsibility of certifiers  
8 and inspectors. They need to verify that the  
9 Organic System Plan has those biodiversity  
10 practices included. Inspectors must be qualified  
11 to assess compliance with those very important  
12 parts of the regulations, that operations must  
13 maintain or improve soil and water quality. And  
14 then Appendix A of this guidance offers a number  
15 of best practice examples. For instance, planting  
16 diverse species and controlling livestock access  
17 to biologically sensitive areas. So this is a  
18 whole list of those types of practices that are in  
19 this final guidance.

20 So under development for final guidance  
21 we have classification of materials. That is  
22 really -- I've been talking about this for a long

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1 time, but it really is close to coming out as final  
2 guidance. Also final guidance for materials for  
3 organic crop production will be coming out in the  
4 next -- we'll say this summer. And then we  
5 have a number of different draft guidance -- boy,  
6 this is coming out strange here -- a number of  
7 different draft guidance documents that should be  
8 published relatively soon. Treated Lumber should  
9 be coming out. Calculation of Organic  
10 Ingredients, which is an NOSB recommendation that  
11 Jean Richardson really cares about. But I -- you  
12 all care about, but I've heard a lot from her about  
13 that particular draft guidance.

14 Livestock materials, materials for  
15 organic livestock production will be coming out.  
16 Pesticide spray drift. We have draft guidance on  
17 that. So look for that this summer. And then some  
18 new instructions or updates to instructions on  
19 materials review and private label certification.  
20 So there's a lot of things that are under  
21 development that we're hoping to get out before the  
22 end of the administration.

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1           In terms of final rule, Origin of  
2           Livestock will be coming out. And then for  
3           proposed rule we have aquaculture, pet food,  
4           apiculture. All those are way -- really far along  
5           in the clearance process, so you should see those  
6           relatively soon.

7           And we have a new initiative to put a  
8           proposed rule out on import certificates. Import  
9           certificates are required under our equivalency  
10          arrangements with the European Union and Korea,  
11          Japan and Switzerland. We require affidavits for  
12          Canada. But we're looking at a proposal to have  
13          all imports be accompanied by a transaction import  
14          certificate. We feel that this will help with  
15          oversight and identifying the audit trail of  
16          imported organic products coming into the U.S.  
17          We're hoping to get that out this summer and  
18          actually finalizing that later this year.

19                 Organic     Livestock     and     Poultry  
20                 Practices was just published a few weeks ago. The  
21                 background for where this came from is quite  
22                 extensive. First of all, the Organic Food

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1 Production Act of 1990 talked about the organic  
2 livestock area. Livestock practices were to be  
3 developed with the input of the National Organic  
4 Standards Board and notice and comment rulemaking.  
5 The preamble to the NOP final rule in 2000, further  
6 collaboration between the National Organic  
7 Standards Board and NOP for specie-specific  
8 standards. So it was always considered that there  
9 would be more specificity in this livestock sector.

10 2010, we had an OIG audit that  
11 recommended to AMS to develop and issue guidance  
12 regarding outdoor access for livestock because  
13 they identified inconsistent practices by  
14 certifiers. Nine recommendations from the NOSB  
15 between 1994 and 2011. And we have implemented the  
16 Access to Pasture Rule in 2010, so really the  
17 non-poultry side, most of that was, at least the  
18 ruminant side was addressed in the Access to  
19 Pasture Rule. So we look at it as sort of  
20 completing the suite of organic livestock  
21 standards making it much more specific for  
22 mammalian and avian species.

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1           So this shows the very different types  
2 of systems that are currently certified organic.  
3 Upper right is a porch-like system that provides  
4 outdoor access through a screened in porch. And  
5 the lower left shows more of a pasture-based system  
6 where you have hundreds of birds outside on  
7 vegetation. So because of this difference in  
8 standards, the wide divergence of practices of what  
9 outdoor access is, the NOSB has made the  
10 recommendations that the porch-like systems in the  
11 upper right should not be considered outdoors.  
12 And so we have a proposed rule.

13           Looking forward to everyone's comments  
14 on this so we can make the final rule even better.  
15 Comment period is open until June 13th.

16           So, yes, we published it on April 13th.  
17 Sixty day comment period. There's also a webinar  
18 that we conducted and the slides and the recording  
19 of that webinar are available on the AMS web site  
20 for more information about the specific proposed --  
21 the provisions in the proposed rule.

22           Okay. So and I'll end there with just

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1 one thing here. So this is a picture of where I'm  
2 from in Washington state. It's now an organic  
3 orchard by Lake Chelan. You can see the  
4 pesticide -- keep out because of pesticide spray  
5 upper right. A farm worker picking a load of  
6 apples lower left. And a couple of kids in the  
7 lower right.

8 So changing landscapes. Small is  
9 beautiful; we all learned this in school, and big  
10 things make big differences. Organic can be proud  
11 of both. Organic, small scale, sustainable  
12 farming, bringing ecological methods to  
13 small-scale productions, supporting economic  
14 vitality and growth to local communities. Organic  
15 wholesale production, bringing incredible biology  
16 and production systems, soil diversity, compost  
17 love, biological pest control, making a difference  
18 on the landscape, reducing pesticides exposure for  
19 farmer and farm workers.

20 For those of us who have worked in  
21 production agriculture, in conventional  
22 production agriculture, we know the difference

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1 that organic makes. No longer living under the  
2 trees in fear of toxic sprays for ourselves or our  
3 children.

4 When I was a young man I worked in  
5 conventional orchards. There were only four  
6 organic orchards in the whole state of Washington.  
7 Everything else was chemical agriculture. I lived  
8 amongst the trees. We camped in condobiniums,  
9 living spaces made out of apple bins. It was a  
10 grand life. Music, work, food and love during the  
11 fall harvest.

12 Two of my sons lived in the orchards,  
13 were raised in the orchards during that time. As  
14 a young father it was a very happy, but also a scary  
15 time. Happy to be able to be with our kids every  
16 day, have them with you as you're working in the  
17 fields. It was also scary for the pesticides all  
18 around. Those that have already been applied,  
19 those that were applied while we were picking.

20 So now, there's no longer just four  
21 small little organic orchards in Washington State.  
22 Ten percent of Washington apples are organic and

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1 many non-organic orchards use organic methods for  
2 pest control. Thousands of farm workers and their  
3 families, thousands of farmers are not exposed to  
4 these dangerous chemicals. That is my motivation  
5 for this work that I do, keeping farmers, farm  
6 workers and farm families in a healthy environment  
7 or a healthier environment in life.

8 So don't let the perfect be the enemy  
9 of the good. Let's all move forward together.  
10 There is so much good we are all doing to heal the  
11 Earth and create a sustainable future for  
12 ourselves, our children and our grandchildren. So  
13 thank you very much.

14 (Applause.)

15 CHAIR FAVRE: Harriet, go ahead.

16 MEMBER BEHAR: Hi, Miles. I wondered  
17 if you have any plans to put any of the information  
18 about organic for incoming producers into the Hmong  
19 language, either doing some voice-over on the  
20 videos or something written, because we do have a  
21 lot of Hmong producers, at least in my region and  
22 I know around the country that are interested in

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1 organic and we have very limited resources for  
2 them.

3 MR. McEVOY: Yes, I know there are a lot  
4 of Hmong farmers and farm workers in different  
5 parts of the country. We don't have any current  
6 plans for doing that, but that would be something  
7 to look into if we had resources for that.

8 CHAIR FAVRE: Any other questions for  
9 Miles? Francis?

10 MEMBER THICKE: Miles, some of the  
11 dairy farmers are concerned about some of the  
12 animal welfare standards. There seems to be some  
13 unintended effects in there, I think. And that  
14 will outlaw most of the housing for dairy farms,  
15 organic dairy farms for the winter.

16 But anyway, they're requesting a 30-day  
17 extension. Is that going to be possible for  
18 comments to July 13th?

19 MR. McEVOY: We've received some  
20 requests for extensions and we're taking a look at  
21 that to see whether or not that would be granted  
22 or not. Would encourage people to take a look at

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1 the webinar for clarifications on some of those  
2 issues. So, but we are looking at those requests  
3 to extend the comment period.

4 CHAIR FAVRE: Any other questions for  
5 Miles?

6 (No response.)

7 CHAIR FAVRE: Okay. Thank you, Miles.  
8 Okay. Next up I'd like to just kind of give you  
9 an overview of what we've been doing on the NOSB.  
10 I'd just like to state that we've got 15 volunteer  
11 members of this Board up here who have been working  
12 really hard to advance the work in the organic  
13 community and we've been tackling some pretty big  
14 issues facing us these days.

15 We have just added three additional  
16 items to our work agenda. In CACS we're going to  
17 be discussing the in-field evaluation of organic  
18 inspectors from recent documents that came out from  
19 the NOP. In Crops we're going to be looking at  
20 strengthening and clarifying the requirements for  
21 the use of organic seed. And we will also be  
22 looking through Materials Subcommittee a five-year

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1 report to the Secretary on GMOs. And the full work  
2 agenda will be presented at the fall meeting in St.  
3 Louis, which will be in November this year.

4 We did a webinar this past Tuesday,  
5 19th, which I think was very well-received. We had  
6 around 32 public commenters that participated in  
7 the webinar, and at one point we had as many as 93  
8 people on the call or webinar. And it was three  
9 full hours of public comment and questions from the  
10 Board.

11 I personally am delighted to have this  
12 as an opportunity and a vehicle for public comment.  
13 I think it increases our chances for those of us  
14 that cannot participate in an in-house  
15 face-to-face meeting to call in. I think that that  
16 particularly offers some great opportunities for  
17 farmers who cannot take the time away from their  
18 farms or bear the expense to come to a meeting, even  
19 a regional meeting sometimes. So I'm very happy.

20 And while we still wrestle with a few  
21 technical challenges from time to time, I think the  
22 NOP staff did an excellent job making all that work.

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1 And I'm sure we'll continue to refine that process  
2 as we move forward.

3 So this week, as we often do, we have  
4 a very, very packed agenda. Although it's nothing  
5 compared to the agenda that my predecessor Dr. Jean  
6 Richardson presided over in Stowe, Vermont, it's  
7 still a pretty hefty list. Over the  
8 next three days we're going to be hearing from an  
9 expert panel on rapidly changing state of emergent  
10 technologies in bioengineering and their impact on  
11 organic agriculture. We'll be hearing from two  
12 members of the Hydroponics Task Force who will  
13 present their perspectives on the work of that  
14 group. That group will probably have their report  
15 done. I believe it's targeted for June of this  
16 year. And that report will be more formally  
17 presented at the meeting in the fall.

18 We'll also be discussing this week the  
19 next steps and the critical tasks of preserving  
20 organic seed purity and addressing excluded  
21 methods. We'll be voting on some comprehensive  
22 changes to the Policy and Procedures Manual

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1 including new sections on increasing the  
2 opportunity for that public participation through  
3 the use of technology like webinars and providing  
4 some -- it also provides some clarification on  
5 procedures such as the presentation of minority  
6 opinions.

7 The Policy Development Subcommittee is  
8 also going to be bringing forward a discussion  
9 document for the reorganization of the review of  
10 sunset materials so that future boards are not  
11 faced with that daunting task of around 200  
12 materials that we dealt with in Stowe. Those of  
13 you that were in the audience there, I'm sure you  
14 can appreciate not only how difficult it was for  
15 you to review and provide comments on that, but for  
16 the Board to provide comprehensive and in-depth  
17 reviews of those materials. And Jean had t-shirts  
18 made up for us at that meeting that said, "I  
19 Survived 2017 Sunset." And I'm not sure we all did  
20 actually survive.

21 (Laughter.)

22 CHAIR FAVRE: I think a few of us still

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1 have a little bit of PTSD from it. But hopefully  
2 we're not going to be faced with that daunting task  
3 again.

4 Livestock Subcommittee is presenting a  
5 couple of proposals at this meeting to change the  
6 withholding periods for two parasiticides and two  
7 medicinal treatments which could have some  
8 significant impact on the organic livestock and  
9 fiber producers in this country.

10 Handling Subcommittee will be bringing  
11 forth a discussion document on the recommendations  
12 for listing nutrient, vitamin and minerals, which  
13 has been problematic for us. And we'll be voting  
14 on a proposal to address the review of the ancillary  
15 substances and handling materials.

16 Crops will be presenting a discussion  
17 document on the prohibition of MPEs.

18 And CACS will be giving us an update on  
19 the assessment of organic soil conservation  
20 practices.

21 All of this is in addition to the more  
22 routine work of the Board, and that's the review

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1 of sunset materials and the new materials petition  
2 for inclusion on the National List.

3 So hopefully that's given you a little  
4 bit of a sense on what's going on with us. We'll  
5 be working this summer on the research priorities  
6 that we'll be presenting at the fall meeting.  
7 Betsy Rakola, who spoke earlier, referred to our  
8 work on that. We've had some conversations with  
9 the Organic Working Group over the last couple of  
10 years refining that process.

11 The Research Priorities Framework  
12 document has been a big help with that, but now  
13 we're getting some feedback on the researcher's end  
14 on how we might make that process for them more  
15 useful and more relevant including finding ways to  
16 package it in a way that's more palatable and easier  
17 for understanding for the research funders, which  
18 is obviously critical in order to make all this  
19 happen.

20 So I would again like to -- before we  
21 go to the National List update, I would just like  
22 to thank you all again for being here. We've got

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1 a lengthy public comment session, both this  
2 afternoon and into tomorrow. And with that, I'd  
3 like to turn it over to Dr. Brines.

4 DR. BRINES: Good morning, everyone.  
5 My name is Lisa Brines. I'm the National List  
6 manager in the Standards Division of the National  
7 Organic Program, and I'm just giving a brief update  
8 today on some outstanding petitions and technical  
9 reports. And this presentation will be posted on  
10 the NOP web site later this week, for those taking  
11 notes.

12 Okay. So at this meeting there are  
13 seven petition materials on the agenda, as well as  
14 over a dozen substances that will be considered  
15 under the sunset 2018 process. As a reminder, this  
16 is just the first of two meetings for the sunset  
17 2018 materials, so there will be public comment,  
18 discussion at this meeting, but the votes for the  
19 sunset 2018 materials won't occur until the fall  
20 NOSB meeting.

21 In terms of the criteria that you as the  
22 Board will be using to evaluate materials for

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1 consideration on or off the National List the  
2 criteria are provided for in the Organic Foods  
3 Production Act of 1990. These criteria are the  
4 basis by which we've established the petition  
5 guidelines, the questions in the technical  
6 evaluation reports, as well as the NOSB review  
7 document. So all of those documents in concert  
8 evaluate the materials against those criteria.

9 There are different criteria that apply  
10 for crop and livestock production materials versus  
11 those that are petitioned or considered for use in  
12 organic handling, and the additional criteria for  
13 synthetic processing aids and adjuvants for  
14 handling uses are at Section 205.600(b) of the  
15 standards.

16 In terms of outstanding petitions that  
17 are the agenda for this meeting, the Crops  
18 Subcommittee will be considering a petition for --  
19 to amend the -- I guess add an annotation for ash  
20 for manure burning at Section 205.602 of the  
21 National List. And the Committee will be  
22 considering the addition of three materials to

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1 Section 205.601 of the National List. Those  
2 include squid and squid byproducts, hypochlorous  
3 acid and soy wax. And in support of those reviews  
4 two new technical reports were developed, one for  
5 squid and squid byproducts and one for hypochlorous  
6 acid. And those technical reports as well as all  
7 four of those petitions are on the NOP web site.

8 In terms of what's coming up next there  
9 are several petitions that are currently  
10 outstanding for the Crops Subcommittee that are not  
11 on the agenda for this week's meeting. Those  
12 include aluminum sulfate, fatty alcohols, which  
13 have been petitioned as a growth regulator,  
14 1-Methylcyclopropene, or 1-MCP, and as well as two  
15 recent petitions for chelating agents, which  
16 include ammonium citrate and ammonium glycinate.  
17 All of those petitions are posted on the NOP web  
18 site. There are two technical reports available,  
19 one for fatty -- or in development, I'm sorry. One  
20 for fatty alcohols and one for aluminum sulfate.

21 In addition, since our last public  
22 meeting the Crops Subcommittee did receive a

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1 petition for calcium chloride, which is posted on  
2 the NOP web site. The Committee had decided at  
3 that time that that petition did not provide  
4 additional new information since the last review  
5 of calcium chloride, since the last petition. So  
6 because that petition didn't contain any new  
7 information, the Crops Subcommittee determined  
8 that it was ineligible for review by the NOSB. We  
9 do have for clarity have that full petition posted  
10 on our web site.

11 For Livestock Committees the Livestock  
12 Committee will also be looking at hypochlorous acid  
13 at this meeting. Again, that technical report is  
14 available and posted.

15 In terms of what's coming up next for  
16 the Livestock Subcommittee, there are three  
17 petitions that are currently under review for use  
18 as poultry litter amendments. Those include  
19 acid-activated bentonite, aluminum sulfate and  
20 sodium bisulfate. Each of those did have a new  
21 technical report that was developed and all three  
22 of those technical reports are now available on the

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1 National Organic Program web site.

2 In addition, a new petition for sulfur  
3 was submitted since our last meeting. The  
4 Livestock Subcommittee has requested a technical  
5 report to assist in the review of that substance.  
6 That's currently in development and when it's  
7 finalized it will be posted on the web site.  
8 The 10 aquaculture petitions also fall under the  
9 scope of Livestock Subcommittee as well.

10 In terms of handling petitions, at this  
11 meeting the Handling Subcommittee will be  
12 considering the petitions of sodium lactate and  
13 potassium lactate, as well as oat beta-glucan,  
14 hypochlorous acid and sodium dodecylbenzene  
15 sulfonate, or SDBS. Technical reports were  
16 developed in support of the reviews for both  
17 hypochlorous acid and the two lactate salts.

18 Coming up next for the Handling  
19 Subcommittee there's a petition for chlorine  
20 dioxide gas which is currently under review; I  
21 think it's under revision, and a petition for oat  
22 protein concentrate, which is currently under

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1 review.

2 In terms of other technical reports  
3 that are in development, some of these came as a  
4 result of actions and deliberation at the last  
5 Board meeting. There's currently in development  
6 a technical report for marine plants and algae,  
7 which covers several materials that are on the  
8 National List. There is a technical report in  
9 development for Bisphenol A as a packaging use for  
10 handling, one for xanthan gum in support of a  
11 possible reclassification decision --  
12 classification that was brought up at the last  
13 meeting.

14 In support of the review of peracetic  
15 acid, it's a crops material that's under review for  
16 sunset, since we were updating the crops report,  
17 we also had the resources available this time to  
18 update the livestock and handling reports. So  
19 they're not currently under consideration for  
20 actions by the Livestock or Handling Committees,  
21 but we do have a new report available for peracetic  
22 acid for handling use and one that should be posted

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1 soon for peracetic acid for livestock use.

2 In addition, there is a new report  
3 available for phosphates for handling, and that  
4 covers several phosphate materials that are  
5 currently on the National List for use in handling  
6 organic products.

7 Just a quick note about technical  
8 report contractors. There have been some  
9 questions about who works on technical reports in  
10 support of the work of the Board. Currently we  
11 have three external and one internal contracting  
12 groups that work on technical reports for the  
13 program. That includes the AMS Agricultural  
14 Analytics Division, ICF International, the Organic  
15 Materials Review Institute and the Pesticide  
16 Research Institute.

17 For those that do have comments on the  
18 technical reports, certainly we would encourage  
19 those comments to be submitted through the public  
20 comment process. So that can be done prior to the  
21 NOSB meetings through [regulations.gov](http://regulations.gov).

22 In terms of voting procedures for

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1 petitions that we'll have at this week's meeting,  
2 for petitioned substances the NOSB will typically  
3 take votes on two different motions. The first  
4 motion will be a classification motion for  
5 materials that have not been previously  
6 classified. So that might include either a  
7 synthetic or non-synthetic determination or an  
8 agricultural or non-agricultural determination  
9 for some handling substances.

10 The second motion will be a motion to  
11 either list, remove or amend the substance as  
12 proposed. For each of those actions in order to  
13 pass a two-thirds majority of the Board will be  
14 needed. So for the Board with 15 members, that  
15 means 10 votes to pass either of those motions.

16 For sunset 2018 there are two sunset  
17 dates that apply to these materials, so any of them  
18 that are on the docket for this week's meeting  
19 either expire May 29th or November 3rd, depending  
20 on when they were last added or renewed to the  
21 National List, but we're considering them as a  
22 group just for convenience. So again, they'll be

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1 considered at this meeting and again at the Fall  
2 2016 meeting. But any voting on those materials  
3 won't occur until the fall meeting.

4 All of the materials, both sunset 2018  
5 and those that are up for subsequent sunset  
6 reviews, those specific dates at which their sunset  
7 are available in the NOP Program Handbook as  
8 document No. NOP 5611. So that is posted on our  
9 web site. If you have difficulty finding it,  
10 certainly let me know.

11 In terms of technical reports that are  
12 available for those sunset 2018 materials, we were  
13 able to meet all of the Board's requests for  
14 technical reports for those materials this year.  
15 Those include new reports for peracetic acid to  
16 address the crop uses, several handling reports,  
17 some of which were limited in scope and included  
18 carrageenan, cellulose, glucono delta-lactone and  
19 potassium hydroxide.

20 Also since our last meeting you may have  
21 noticed that we have published an updated petition  
22 process for the National List. The purpose of this

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1 work was to implement two NOSB recommendations from  
2 your April 2014 meeting to update the National List  
3 petition process.

4 One change is that there's a new  
5 document in the Program Handbook that gives the  
6 procedures for petitioning to the National List.  
7 It is document number NOP 3011. And that new  
8 process became effective on March 11th.

9 In terms of what changes happened as a  
10 result of that publication, it did implement the  
11 Board's recommendation to eliminate the  
12 possibility for petitioners to submit confidential  
13 business information. So it's no longer part of  
14 the petition process to have both CBI and  
15 CBI-deleted versions of petitions submitted.

16 It also requires that petitioners  
17 indicate the category for a substance for certain  
18 uses in organic production. It clarified  
19 procedures for certain types of petitions such as  
20 annotation changes. Some of those changes include  
21 simplified procedures for certain types of  
22 changes. It also addressed common questions about

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1 the petition process to clarify the role of the  
2 National Organic Program, the role of the Board and  
3 what criteria are used to evaluate petitions.

4 And that's all I have for today, unless  
5 there are questions. Thanks.

6 CHAIR FAVRE: Any questions for Dr.  
7 Brines?

8 (No response.)

9 CHAIR FAVRE: Thank you very much.

10 Okay. I want to mark this historic  
11 event in that we are actually nine minutes ahead  
12 of schedule.

13 (Laughter.)

14 (Applause.)

15 CHAIR FAVRE: It won't last.

16 We are actually scheduled to take a  
17 break now. And so, I would like us to go ahead.  
18 In the interest of doing our best to stay on  
19 schedule, let's be back promptly at 11:15. Thank  
20 you.

21 (Whereupon, the above-entitled matter  
22 went off the record at 10:51 a.m. and resumed at

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1 11:17 a.m.)

2 CHAIR FAVRE: Okay, folks, let's get  
3 started back. Let's not lose all the perfect  
4 timing we had. If everybody will take their seats  
5 as quickly as possible. Folks, if you're out there  
6 in the pre-meeting area, if you'll let the people  
7 know that we're getting started back and have them  
8 come in and take their seats, please.

9 Okay, we're going to start our session  
10 after the break with a Hydroponics Task Force  
11 update. That's going to be a couple of members  
12 from the task force giving us some information on  
13 the work they're doing, and I'm going to turn it  
14 over to the NOSB liaison to that task force, Zea  
15 Sonnabend.

16 MEMBER SONNABEND: Thank you, Tracy.  
17 As chair of the Crops Committee and liaison to the  
18 task force, I'm pleased to be able to introduce this  
19 little session which will be about not exactly  
20 progress, but it will be a frame outline of some  
21 of the issues that they're working on in order to  
22 create their report, which will be coming to us at

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1 the next NOSB meeting or before the next NOSB  
2 meeting so we can take it up on our agenda for then.

3 The current status of this is that,  
4 Miles mentioned this a bit in his report this  
5 morning, the USDA regulations do not prohibit  
6 hydroponics, in their minds. And certification to  
7 the USDA organic standards is currently allowed if  
8 the certifier can demonstrate that it complies with  
9 the standards. There are conflicting NOSB  
10 recommendations about this. A 1995  
11 recommendation: hydroponic production in soilless  
12 media labeled organic would be allowed if the  
13 provisions of OFPA are met. In the 2010  
14 recommendation, growing media shall contain  
15 sufficient organic matter capable of supporting  
16 natural and diverse soil ecology. For this  
17 reason, hydroponic and aeroponic systems are  
18 prohibited.

19 So the task force was formed to  
20 reconcile some of these conflicting positions over  
21 time. The composition contains individuals that  
22 represent soil-based systems and hydroponic

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1 systems and aquaponic community, with an emphasis  
2 of technical expertise in both sets of areas. The  
3 objectives are to describe the hydroponic and  
4 aquaponic systems in use and their practices, of  
5 which there are very many. And I will say also the  
6 line is quite blurred between what is hydroponic  
7 and what is known as container-based growing and  
8 how that interfaces with noncontainer growing or  
9 soil systems.

10 They are to examine how hydroponic and  
11 aquaponic methods align or conflict with OFPA and  
12 the USDA organic regulations. And then it says  
13 explore alternatives, but I would say it's more  
14 explore options of what type of standards we would  
15 have to propose to have only the most appropriate  
16 of those systems in use and not the ones that would  
17 be inappropriate with the organic standards, or to  
18 propose what could happen if we did not allow  
19 hydroponics in the end but perhaps have a separate  
20 rule or a separate approach to the systems.

21 So with that, I'm going to let our  
22 presenters tell us a little bit about their work.

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1 Thank you.

2 First, we have Stacy Tollefson. Dr.  
3 Tollefson has a Ph.D. and over seven years of  
4 experience with commercial style hydroponic and  
5 aquaponic systems and has further expertise in  
6 biosystem engineering, controlled environment  
7 agriculture and pest management. She's currently  
8 an adjunct lecturer in the Department of  
9 Agricultural and Biosystems Engineering and a  
10 research specialist for the Controlled Environment  
11 Agriculture Center at University of Arizona.

12 Dr. Tollefson's work at the Center's  
13 5,000 square foot teaching greenhouse currently  
14 focuses on IPM techniques, recirculating nutrient  
15 solution systems and transitioning hydroponic  
16 systems to organic production. Dr. Tollefson has  
17 experience managing a commercial aquaponics farm  
18 and consulting for hydroponic greenhouse growers  
19 wishing to transition.

20 Thank you. Dr. Tollefson.

21 DR. TOLLEFSON: Hi. Thank you. I  
22 guess as an overview, our committee has split into

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1 two different groups, one that's looking at the  
2 emerging technologies that are hydroponic-based,  
3 but aligned with the organic standards. And the  
4 other committee was to look at the 2010  
5 recommendations to provide feedback on that and  
6 clarifications. But it kind of became two  
7 separate positions, if you will. We have the one  
8 group that is for the organic hydroponics and  
9 aquaponics and the one group that wants to keep  
10 everything soil-based. So just to give a  
11 perspective, we're kind of split in our views of  
12 what the regulations say.

13 Okay, so definition-wise, there was a  
14 definition in the 2010 recommendation for  
15 hydroponics. We adjusted it to be a little more  
16 specific. Our definition of hydroponics is the  
17 growing of plants in a mineral solution with or  
18 without an inert growing media to provide  
19 mechanical support.

20 We agree with the 2010 recommendations  
21 that these kinds of systems should be prohibited,  
22 the reasons being that they use unapproved inputs,

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1 insufficient carbon and biology in these systems,  
2 and there's no nutrient cycling. Everything is in  
3 a plant-available form, and microbiology is not  
4 necessarily required in these systems.

5 The emerging technologies that were not  
6 addressed in the 2010 recommendations are systems  
7 which we call bioponic. And these we define as a  
8 contained and controlled growing system in which  
9 plants derive nutrients from organic substances  
10 which are in the water and/or the growing media  
11 which are released by biological activity of  
12 microorganisms that are throughout the system.  
13 These modified hydroponic systems use the same  
14 organic inputs, processes, and principles as field  
15 growers use.

16 In looking at the alignment with the  
17 organic principles and the regulations, all inputs  
18 are compliant with the National List including the  
19 media that's used. There is sufficient organic  
20 matter added to the system to support microbial  
21 diversity. The biology is added to the system and  
22 maintained in the system so that we do have nutrient

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1 cycling in those systems. And also, natural  
2 resources of the farm site are conserved so that  
3 the soil and water quality are not degraded. And  
4 any excess fertilizer that does come out of the  
5 system is captured and repurposed, and it doesn't  
6 go out to the farm site.

7 One example is aquaponics, and this is  
8 a system of aquaculture in which the waste produced  
9 from farmed fish or other aquatic animals supplies  
10 the nutrients for plants, and then the plants are  
11 grown hydroponically, which actually cleans the  
12 water, and that clean water is input back in the  
13 system for the fish. So it's a completely clearly  
14 closed system, except for evaporation.

15 Our example 2 is bioponic tomato  
16 production. In this case, tomatoes are grown in  
17 a base of organic coconut husk or other organic  
18 material. The crop nutrition is supplied through  
19 solid and liquid plant, animal, and National List  
20 approved minerals. There is biology added to the  
21 system, which is necessary for this system to  
22 actually work and produce a crop. The media is

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1 either inoculated with a compost tea or some other  
2 microbial product or natural sources. Earthworms  
3 are often added to the media as well.

4 A third example is lettuce, a bioponic  
5 lettuce system in which lettuce is started in a base  
6 of organic material. The crop nutrition is again  
7 supplied through liquid organic fertilizers, which  
8 may be fermented plant materials or compost teas.  
9 And these are typically recirculating systems.  
10 The biology again is added through compost tea.  
11 Many of these systems have biofilters in which  
12 there are active microorganisms in the system to  
13 cycle the nutrients, or there may be other  
14 microbial inoculant products that are added which  
15 are on the National List or the OMNI-approved list.

16 The 2010 recommendations state that  
17 container culture-based growing media which is  
18 typically used in greenhouse systems which  
19 predominantly have compost or compostable plant  
20 material should rightly be considered soil. And  
21 we agree with this. We do also further believe  
22 that other bioponic container systems should also

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1       rightly be included because we do support all  
2       soil-dwelling organisms that you would find in the  
3       soil food web, and they would be within our growing  
4       systems.

5                Bioponic growing systems, because they  
6       are container systems, they maintain the site soil.  
7       So with all of the regulations that state that the  
8       soil must be maintained or improved, we do maintain  
9       the soil on the site.  Therefore, there's no need  
10      to perform soil crop rotations or cover cropping.  
11      Our runoff drainage does not contribute to surface  
12      and groundwater contamination since it is  
13      recaptured or repurposed.  And that would  
14      definitely have to be something that might need to  
15      be put in a regulation at some point.

16               Our subcommittee came to the conclusion  
17      that the intent of the organic regulations is to  
18      be able to grow foods in a way that provides the  
19      least harm to the earth's soil, water, and  
20      biological communities.  And for production  
21      systems to integrate, of course, cultural,  
22      biological, and mechanical processes that foster

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1 the cycling of resources, promote ecological  
2 balance, and conserve biodiversity. And that  
3 definition of organic production is certainly what  
4 our main idea is for these bioponic systems. We  
5 do that within our growing system. And to grow  
6 foods that are chemical-free and healthy.

7 One thing to consider, of course, is how  
8 the public views organic foods. Numerous studies  
9 have been done on consumer beliefs, and the main  
10 findings that you see is that people associate  
11 organic with chemical-free, healthy and  
12 nutritious, and environmentally friendly. I have  
13 not seen any reports that people associate organic  
14 with grown in the soil in particular. Thank you.

15 CHAIR FAVRE: Thank you. Our next  
16 presenter is John Biernbaum. Dr. Biernbaum is a  
17 Professor of Horticulture at Michigan State  
18 University. Over the past 30 years, he's acquired  
19 extensive academic and practical experience in  
20 greenhouse management, container plant fertility  
21 systems, high tunnel vegetable production, organic  
22 agriculture, and composting.

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1           Dr. Biernbaum was involved in the  
2 development and certification of a year-round  
3 organic teaching farm, a one-year organic farmer  
4 training program, a sustainable and organic  
5 horticulture concentration, and teaches a class,  
6 of course, in organic farming principles and  
7 practices. He has been a member of the Michigan  
8 Organic Farm and Food Alliance Board of Directors  
9 since 2009 and is currently chair of the MOFFA Board  
10 and Education Committee. Thank you

11           DR. BIERNBAUM: Thank you very much for  
12 this opportunity to share, this morning, what we've  
13 been working on. I'd like to just start by  
14 recognizing the other members of our subcommittee.  
15 There's seven of us. Combined, there's over 160  
16 years of experience with organic farming,  
17 education, and certification.

18           I'd also like to recognize the efforts  
19 of USDA in so thoughtfully bringing us together in  
20 a way that's been very productive and constructive,  
21 which doesn't always happen in a situation like  
22 this where you have people with different ideas.

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1 That it's been a good experience, and I appreciate  
2 all the effort that's gone into making it that kind  
3 of an experience.

4 We've been asked primarily to focus on  
5 the what and the how of how to do these systems,  
6 the aquaponics, the hydroponics, and also  
7 addressing the indoor enclosures. But the first  
8 part of our report, we also, in addition to  
9 addressing the what and the how, are working on  
10 addressing the why of organic agriculture and why  
11 we're doing things.

12 This particular figure is taken from  
13 the 1940 book, Look to the Land by Lord Northbourne  
14 where he laid out some of the early concerns about  
15 what was happening with agriculture and the soil,  
16 and he also referenced the concerns about  
17 hydroponics then. He, as many others, often point  
18 to the development of water culture systems around  
19 1840 to 1860, 100 years previous, as one of the  
20 reasons why organic agriculture developed in the  
21 ways that it did with this emphasis on feed the soil  
22 and not the plant.

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1                   At that same time, Sir Albert Howard  
2 published An Agricultural Testament where the key  
3 thesis of the story that he was telling of his work  
4 in India was the importance of healthy soils  
5 leading to healthy plants, healthy animals, and  
6 healthy people. This is a slide that I started  
7 using probably 12 years ago as I was learning about  
8 organic agriculture, and I've included it in dozens  
9 of talks and as a way of helping to talk about what  
10 the purpose is and where's the background of  
11 organic.

12                   We're not going to get into a real  
13 detailed story of the time line here, but just going  
14 from that 1940, if we fast forward 50 years of  
15 organic certification and 50 certifying agencies  
16 is when we began this process that we're really  
17 looking at more detail of the Organic Food  
18 Production Act starting in 1990 and then the NOP  
19 regulations in 2000 and 2001.

20                   So the question is what's going to  
21 happen going forward? This is another key aspect  
22 of what we're discussing in both of our

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1 subcommittees, the importance of organic matter in  
2 soil biology and also that there's much more to  
3 organic farming than just the soil biology. One  
4 of the concerns that I have based on past  
5 experiences in academia is the risk of taking  
6 something that's very large and integrated and  
7 reducing it or taking some part of it and  
8 emphasizing it. The biology is important as is the  
9 organic matter, but we're learning so much about  
10 the different roles here.

11 And one of the questions that we need  
12 to consider is is the estimated six to seven billion  
13 organisms that could be in a cupful of healthy soil,  
14 how does that compare to what would be present in  
15 a bioponic, NFT-type system that has compost and  
16 has organic inputs in, but how do those compare?  
17 And I think the answer is going to be we don't know  
18 at this point, but it is something that we can  
19 certainly consider as we go through this process.

20 But the way I've learned organic  
21 farming, even though I started in the greenhouse  
22 and I started with transplants, is I've gone on to

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1 learn so much more about what happens in the field  
2 and how we manage these soils to have a truly  
3 successful organic system, and that it's much more  
4 than the biological contributions of nutrient  
5 availability and cycling and disease management,  
6 but we also have to really think about the physical  
7 contributions of what's happening in these  
8 systems, particularly now as the NRCS and so many  
9 people are reminding us about, with the climate  
10 change issues and the heavy rainfall and the need  
11 to retain water, how important these physical  
12 contributions are, as well as the chemical  
13 contributions, of building this foundation of  
14 nutrients that will be available over a long period  
15 of time without routine updating or additions.

16 So as we shift from some of the reasons  
17 why we come back to the regulations, and this is  
18 one of the foundational sections of OFPA where  
19 looking at this call for soil fertility, that an  
20 organic plan shall contain provisions designed to  
21 foster soil fertility primarily through the  
22 management of organic content of the soil through

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1 proper tillage, crop rotation, and manuring. And  
2 this is in our report what we seek to develop in  
3 more detail, just why these principles are there  
4 and what was intended here. And also, this seems  
5 to be one of the key parts that is being interpreted  
6 different ways that needs to be resolved.

7 This other, production and handling  
8 practices: if a production or handling practice is  
9 not prohibited or otherwise restricted under this  
10 chapter, such practice shall be permitted, unless  
11 it is determined that such practices would be  
12 inconsistent with the applicable organic  
13 certification program. And I think that's where  
14 there's some differences of interpretation of  
15 this. Are these systems consistent or not? And  
16 that's what really needs to be resolved.

17 When we look more closely at the organic  
18 regulations, we address a number of the different  
19 sections, but this is one that really stands out  
20 when it comes to soil fertility and nutrient  
21 management and the fact that we're defining these  
22 practices. And there's this emphasis on the must

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1 here, select and implement tillage and  
2 conservation practices that maintain or improve  
3 the physical, chemical and biological, as I  
4 mentioned previously, condition of the soil and to  
5 minimize soil erosion. And then also that the  
6 producer must manage crop nutrients and soil  
7 fertility through rotations, cover crops and the  
8 applications of plant and animal materials.

9 And there are exceptions. The  
10 different types of systems that have been or are  
11 being identified, and the question is how far do  
12 you go with those exceptions? In our case, we also  
13 have an extensive amount of international  
14 regulations that we can look to, and it's going to  
15 be really important that whatever is decided from  
16 this, that how this is going to align with our key  
17 trading partners and their policies, particularly  
18 with Canada, the EU and Mexico. And for the most  
19 part, what we see internationally is requirements  
20 for in-ground production with certain limited  
21 exceptions.

22 And then there's other information

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1 that's available where some places the regulations  
2 do include more information about containers. And  
3 Canada has been working on that, and there's some  
4 in the Scandinavian countries. And that can be  
5 addressed by either talking about the size of the  
6 container or the media that's in those containers,  
7 just what are the substrates that are allowed, and  
8 how frequently or infrequently do they need to have  
9 fertility added? And those are some of the things  
10 that are developed in great detail in the report.

11 One other part of the report is looking  
12 closely at the 2010 recommendation and trying to  
13 offer suggestions on how it could be -- the wording  
14 could be chosen and things could be clarified. I  
15 feel very fortunate to be in this position, with  
16 30 years of teaching greenhouse management and  
17 operations and 15 years of learning about organic  
18 farming, to be able to help offer some suggestions  
19 as well as to summarize all the thoughts of the 15  
20 members on the task force, and we're working on  
21 trying to do that so that we can have that available  
22 for the NOSB.

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1           The original definition of a  
2 greenhouse, in the 2001 recommendation, just  
3 mentioned a structure. It didn't mention what is  
4 essential to a greenhouse, which is a transparent  
5 roof. And because of that, things are being grown  
6 in buildings which would be more correctly called  
7 controlled indoor environments. So we're helping  
8 to identify those things so that we can be more  
9 accurate.

10           Also, with lighting, lighting is  
11 allowed, but how much lighting? Are we going to  
12 allow indoor production with 100 percent lighting  
13 or lighting as supplemental? So there's other  
14 issues about what is the compost and about  
15 rotations also. So lots of things that we're  
16 working hard to share.

17           As we look at trying to make some  
18 conclusions here, again, I can use myself as an  
19 example of starting 15 years ago with my  
20 introduction to organic coming from greenhouses  
21 and from transplants. At that time, there wasn't  
22 a regulation. I had the act to look at, and I

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1 started asking farmers. And I admit that my  
2 perception of organic was biased because of where  
3 I came from. I didn't really come necessarily from  
4 a farming background. I came from a greenhouse  
5 background. But as I asked more and more questions  
6 and learned about what the expectations were, I  
7 learned how to include compost and other systems  
8 that could make the indoor systems more resilient  
9 and more successful in the long term.

10 So just looking at some pictures, as we  
11 think about this, I'm going to show you just a range  
12 or a continuum of examples that will have to be  
13 chosen or described as how we're going to manage.  
14 In this case, a very simple enclosure with high  
15 tunnels where we're definitely growing in the  
16 ground, and we see a rapid, I think we're finally  
17 getting out of this slow growth and high tunnels  
18 into the rapid growth phase. And again, in part  
19 due to the support of the USDA and the High Tunnel  
20 EQIP program and other things like that, it's going  
21 to really help many, many farmers in both urban and  
22 rural settings. But it's an enclosed system.

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1 It's not leaching. We have to be careful about how  
2 we manage that fertility.

3 I think that's -- we can do, as we look  
4 at the potential for more indoor heated production.  
5 This is the Stone Barns, the facility at the Stone  
6 Barns, a center in New York, seeing more in-ground  
7 production with heated greenhouses. There's a  
8 good potential that's going to grow, and we need  
9 to maintain that.

10 But this is from a greenhouse in Detroit  
11 that is right across from the MGM Grand Casino built  
12 on a parking lot. And this is a soil -- a big box  
13 of soil. And we're going to have to ask, is this  
14 a container? Is this soil? Is this something  
15 that can be certified as organic? And is it  
16 growing in the ground, or is it not growing in the  
17 ground?

18 And here's a greenhouse that's on the  
19 MSU campus, 20 feet from a dormitory. And this was  
20 built in an area where you couldn't grow in the  
21 ground, and there's 45 cubic yards of compost that  
22 I made there from the food waste that was taken from

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1 the dormitory a hundred yards away. So this is a  
2 100 percent compost system, and it's been growing  
3 in there for four years with little to no addition  
4 of nutrients. So there's a lot of things that are  
5 possible.

6 On a smaller scale, this idea of bucket  
7 production, or are we going to allow this as  
8 in-compost based media, or this type of bucket  
9 production in a greenhouse where it's more of a  
10 bioponics-type system with frequent inputs? Are  
11 we going to allow large hydroponics production?  
12 This is not an organic system, but this is the  
13 growing greens in Chicago. And we're going to see  
14 more of this type of production. How will it be  
15 managed?

16 And finally, this type of indoor  
17 production that people are talking about with the  
18 100 percent lighting and liquid ways of managing  
19 the fertility. Is this something that we think is  
20 suitable for an organic systems plant?

21 So in conclusion, our committee is  
22 taking more of the position that the hydroponic

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1 systems cannot meet key requirements for the  
2 organic production, as laid out in OPFA and the USDA  
3 organic regulations and that these systems do not  
4 align with the founding principles of organic  
5 agriculture, which are the sound management of soil  
6 biology, ecology, and overall soil health.

7 And there will be some options that will  
8 have to be decided. Is there going to be  
9 limitations that are based more on growing what is  
10 in the ground? Is this more common in the EU? Or  
11 will there be organic certification to what is  
12 grown in the ground as well as some type of  
13 definition for containers with restrictions for  
14 enclosures, lighting, and fertility that could  
15 include -- that's a big option there. It could  
16 include many different things as we've shown.

17 So with that, I think that's the end.

18 MEMBER SONNABEND: Thank you, Dr.  
19 Biernbaum. We do have, I believe, 15 minutes for  
20 questions from the Board, and Tracy, will you be  
21 calling on people or should I? Okay.

22 Okay, so does the Board have any

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1 questions for our panelists? Francis. Thank  
2 you.

3 MEMBER THICKE: Dr. Tollefson, can you  
4 tell us more about the nutrient solution you used,  
5 and in particular, nitrogen for a heavy feeder like  
6 tomatoes, how does that work?

7 DR. TOLLEFSON: As I mentioned before,  
8 one of the inputs that is commonly used is compost  
9 tea. And compost teas can use both compost and  
10 added soil amendments that would be on the National  
11 Priorities List that get added to the tea making  
12 process. And with the microbes in that compost tea  
13 making process, it helps with the nutrient cycling  
14 to bring those nutrients into a form that can be  
15 used by the plants. There are also some commercial  
16 liquid products that are fermented plant materials  
17 and animal materials that produce amino acids and  
18 ammonia typically, and you need microbes in the  
19 system to then convert the ammonia to nitrates.

20 MEMBER SONNABEND: Harriet?

21 MEMBER BEHAR: Dr. Tollefson, can you  
22 tell me the percentage -- we know that vibrant,

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1 biologically active soil is teeming with  
2 biological activity, and you're also saying that  
3 the bioponics has biologic activity. What is the  
4 percentage? Are they equal? Are they -- is it 10  
5 percent of the activity that you might find in soil?

6 DR. TOLLEFSON: I honestly can't tell  
7 you. Unfortunately, this is such an emerging  
8 technology that we don't have the research out  
9 there yet, and that is a real limitation to this.  
10 So there is quite a bit of work that needs to be  
11 done to test for that type of information.

12 MEMBER SONNABEND: A-dae.

13 MEMBER ROMERO-BRIONES: Can you tell  
14 me if their container growing or hydroponic systems  
15 are more popular in different regions of the  
16 country?

17 DR. TOLLEFSON: It's really across the  
18 board, just everywhere, and that's the beauty of  
19 these systems, that they can be used in any region,  
20 whether it's Antarctica, we have a research  
21 indoor-growing facility where you can't bring  
22 fresh vegetables but once a month maybe, where they

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1 can actually grow and have food. You can use these  
2 on the moon. So these systems can be used  
3 anywhere, and all types of systems are used in all  
4 different areas.

5 MEMBER SONNABEND: Francis.

6 MEMBER THICKE: I've heard that in the  
7 bioponics that frequently ozone is used to keep it  
8 from becoming too biologically active to plug up  
9 the system. Is that true that ozone is used to  
10 modulate that?

11 DR. TOLLEFSON: Yes, that is certainly  
12 an issue, and that's why research is -- that's why  
13 I'm doing research on these types of systems right  
14 now because it is possible that there's too much  
15 microbiology, at least at the beginnings when you  
16 put these nutrients into the system. The  
17 microbes, there are so many microbes, I can't  
18 enumerate them, but there are so many microbes they  
19 do use up quite a bit of oxygen, and that can be  
20 a problem for the plants. So there is a lot of  
21 management and a lot of research that needs to go  
22 into this. However, there are some very

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1       successful growers that are using these techniques  
2       and have put the research time into it, and that's  
3       why these types of systems are quite proprietary  
4       in their methods and nutrients because they have  
5       spent a lot of money and research to do this.

6                   DR. BIERNBAUM:   If I could add to that,  
7       one of the -- in trying to learn about these systems  
8       that we've heard some in our committee reports.  
9       But I have one student who works at a greenhouse  
10      that uses this type of a system that's associated  
11      with a hospital near Detroit, and he was pretty much  
12      on his own figuring it out.  But he learned what  
13      I heard from the committee is that using these  
14      systems that there could be enough particulate  
15      matter that the roots could be covered with a film  
16      that could lead to then oxygen depletion and  
17      reduction in growth.  And that the only way -- the  
18      way that he did and others have done is to then  
19      filter this system and remove a number of the  
20      particulate matter and other things to try to  
21      prevent that biofilm from forming on the roots.  
22      Again, that seems like a fairly specific

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1 modification that isn't -- that seems a little  
2 contrary to me to what we're trying to accomplish.

3 DR. TOLLEFSON: May I say something on  
4 that note?

5 DR. BIERNBAUM: I hope there's more to  
6 that story.

7 DR. TOLLEFSON: Yes, there are also  
8 ways to adjust the microbiology of the system to  
9 help prevent those things from occurring.

10 MEMBER ROMERO-BRIONES: For the  
11 hydroponic systems in particular, is there waste,  
12 and what is done with the waste?

13 DR. TOLLEFSON: In many of these  
14 systems, they are recirculating, and so there are  
15 no wastes: we reuse any excess solution. In some  
16 cases where you have, like a binding production  
17 system, where you have media in a bucket, there is  
18 some waste solution, and sometimes it is  
19 recirculated as well. Sometimes it is captured  
20 and used on an outdoor crop, but the nutrient levels  
21 would be known beforehand to know that we're  
22 sufficient to meeting the needs of the outdoor crop

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1 and not polluting our soil and water of the site.

2 MEMBER SONNABEND: Harriet and then  
3 Emily.

4 MEMBER BEHAR: Since we are charged to  
5 also, especially when we're looking at materials,  
6 to review things in a sustainable farming system,  
7 I have some concern about the heavy reliance on  
8 inputs, off-farm inputs. A lot of organic farmers  
9 really seek to produce a lot of their own fertility  
10 on the farm and to move away from purchased inputs  
11 whether they're allowed or not. And this includes  
12 the use of energy because it is in an enclosed  
13 environment for heat, maintenance, and lighting.  
14 So can you speak to how a hydroponic system could  
15 be considered sustainable?

16 DR. TOLLEFSON: Okay, yes. One thing  
17 is that many of these systems do use compost, and  
18 it may not be necessarily from the farm site, but  
19 certainly from a waste-producing locality near  
20 them. As far as sustainability goes, for  
21 instance, the media, even if it's not a compost,  
22 the media can be re-used.

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1           The inputs, like I said, many times the  
2 inputs are compost teas. So that kind of goes with  
3 that. If they do use commercial product, there  
4 aren't very many commercial products on the market,  
5 but most of those are waste product produced.  
6 There is some carbon footprint in the production  
7 of those products, so I'd agree with that. But all  
8 together, these systems are going to save you  
9 approximately 90 percent of the water inputs that  
10 you're going to use. They will also save on the  
11 nutritional inputs because we know exactly what  
12 those plants need and what they're going to use,  
13 and we can monitor that very closely and adjust our  
14 inputs to be conservative.

15           DR. BIERNBAUM: From the compost  
16 perspective, that's the focus of my current  
17 research, is looking at taking locally-available  
18 resources including food waste, which is a big  
19 issue right now that's being addressed -- how can  
20 we get more of these nutrients back to the farm?  
21 -- and in a local set up that a farm can do on-farm  
22 composting using things like leaves and straw and

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1       hay together with food scraps and produce a system  
2       that could be a very effective long-term supply of  
3       nutrients in a container-type system.

4               The greenhouse that I showed that's on  
5       campus, as I mentioned, it's been growing for four  
6       years with very little to no inputs other than some  
7       leaf mold type compost with all local materials.  
8       So I think that that's one part, and I think the  
9       water part, we've kind of had that in the  
10      discussion, that if you compare hydroponic or  
11      bioponic type systems to field-flood production,  
12      yes, there's big differences in water. But if we  
13      compare it to other enclosed greenhouse container  
14      systems, my estimates would be that there's not  
15      really that much difference. Actually, after our  
16      meeting in San Diego, I had the class set up a demo  
17      of a bioponic-type system and a compost system,  
18      both in enclosed flats, and looking at how much  
19      water they applied over a three weeks of kale  
20      production, and they were basically the same.

21              So it's just what are you comparing, and  
22      we definitely want to conserve water, and that's

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1 one of the advantages of these container systems  
2 is that we can conserve water in a non-leaking type  
3 system.

4 DR. TOLLEFSON: So you're saying with  
5 the compost, that experiment, that was container  
6 to container, correct?

7 DR. BIERNBAUM: Correct.

8 DR. TOLLEFSON: So what my argument  
9 would be that the water in any of those container  
10 systems is going to be, I would say, 75 percent to  
11 90 percent water conservation compared to a field  
12 situation.

13 MEMBER BEHAR: Just to follow-up on  
14 that. I'm just wondering: but the vast majority  
15 of the hydroponic system set are being certified  
16 organic right now, they're not necessarily the  
17 bioponic using compost tea. They are?

18 DR. TOLLEFSON: They are.

19 MEMBER BEHAR: I thought they were  
20 using just like approved -- other approved inputs.  
21 No. Okay.

22 DR. TOLLEFSON: There may be

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1 situations where everything would be approved  
2 inputs. If not, I don't know why the certifier  
3 would be doing that, but I don't know. But there  
4 may or may not be sufficient biology. It may be  
5 organic sources that are already soluble. And  
6 that is an issue that we are discussing in our  
7 report is the role of the biology. Just because  
8 it's there doesn't mean it's organic. We need to  
9 see some nutrient cycling.

10 MEMBER SONNABEND: Okay, Emily.

11 MEMBER OAKLEY: Just in hearing your  
12 comments, I wanted to speak to one point about water  
13 conservation, simply because I'm a field-based  
14 grower and a lot of my crops provide all of their  
15 water needs through rainfall and never require  
16 irrigation, so I just wanted to put that out there  
17 was a point of comment.

18 But my question was that you spoke or  
19 referenced the biological activity in organic  
20 matter which you just referenced again. Could you  
21 describe that in a bit more detail?

22 DR. TOLLEFSON: I'm sorry, about what?

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1                   MEMBER OAKLEY: Could you describe the  
2 biological and organic matter components of a  
3 hydroponic system in more detail, please?

4                   DR. TOLLEFSON: Sure. As I said, the  
5 inputs many times are compost teas, and so that  
6 organic matter of the compost is going to be  
7 contributing to the nutrients, the nitrogen and all  
8 the nutrients for the plants.

9                   In other situations, we would be adding  
10 some solid amendments perhaps to the media if it's  
11 a media-based system. Those again would be  
12 National List approved and it could be blood meal,  
13 feather meal, kelp, any of those types of products.

14                   On the other hand, in the liquid stream,  
15 you could have some of these fermented plant  
16 products, and then your sources are coming from  
17 that, your nitrogen and everything else.

18                   MEMBER SONNABEND: Scott.

19                   MEMBER RICE: I was wondering if you  
20 have considered the essentiality of those -- of  
21 crop rotation in those in-ground systems? You  
22 make a distinction on in-ground is more in line with

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1 the standard, and I'm just wondering if you've  
2 considered the crop rotation, for instance, and  
3 something that is doing explicitly lettuce or some  
4 other crop?

5 DR. BIERNBAUM: We have been  
6 discussing that, and I would say the short answer  
7 is there's just some difference of opinion which  
8 we're trying to capture, but that when I started  
9 working in high tunnels, I was working under the  
10 assumption that we had to do rotations, and we  
11 worked out rotations, so it's clearly possible.

12 There are some economic factors there  
13 in terms of certain crops. Tomatoes and spinach  
14 are potentially higher profitable or more income  
15 per unit of square foot of area compared to some  
16 of the other crops, but I believe it's possible with  
17 a diverse system to do that.

18 We are doing that at the Student Organic  
19 Farm, but I'm not in a business where my life  
20 depends on that, and that's where the other side  
21 of the story comes in is where someone's livelihood  
22 depends on the income from that structure and being

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1 able to pay for the costs of that structure, both  
2 the construction and maintenance that you've got  
3 to have -- the economics have to work.

4 So can you do that or not is the question  
5 we've been discussing and trying to come back  
6 around to being able to have a good answer in the  
7 report about the different perspectives of that.  
8 But that is one of the key things that will have  
9 to be decided. So right now, if you look at it,  
10 there's room for the certifiers to make exceptions  
11 for rotation in some of the enclosed -- I think that  
12 needs to be reconsidered.

13 MEMBER SONNABEND: Any other  
14 questions? Carmela? You're right against  
15 reflective mirrors, so it's hard to see your hand.

16 MEMBER BECK: Okay, so Dr. Tollefson,  
17 in your report, I saw you used the word bioponics.  
18 So I was wondering -- and you gave a couple of  
19 examples. I'm wondering if that's an industry  
20 utilized word, if it's a common one and if you could  
21 talk a little bit more about that.

22 And Dr. Biernbaum, you didn't mention

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1 bioponic in your presentation, and I'm just  
2 wondering if both subcommittees are utilizing the  
3 same definitions in the presentation of materials  
4 or in the final report, you're working from the same  
5 basic definitions.

6 DR. TOLLEFSON: Yes. We were very  
7 conscious of our verbiage. And the whole  
8 committee decided to use the same language. So we  
9 agreed upon a definition of soil. We agreed upon  
10 a definition of bioponics. Bioponics is a  
11 relatively new term. We had some experience with  
12 it, just looking in the literature -- well, not so  
13 much the literature, but online.

14 Typically, bioponics is a combination  
15 of hydroponics and aquaponics, but it is also a  
16 combination of hydroponics and any  
17 microbial-mediated type of growing system, and  
18 aquaponics being one type. So bioponics basically  
19 means an integration of a hydroponic system which  
20 has organic inputs and that has microbiology that's  
21 cycling the nutrition.

22 DR. BIERNBAUM: I'm not sure if I fully

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1 understand your question, but there were some  
2 places in my -- what I presented here where we're  
3 referring to hydroponics of old which as Stacy  
4 defined as inorganic-type hydroponics. And then  
5 when I was referring to the types of systems that  
6 they're working on now, I tried to use the word  
7 bioponics, that that's the word that the overall  
8 task force or committee, both committees agreed to  
9 use. That word has been around for a while, but  
10 it's not -- I wouldn't say that it's common usage  
11 yet.

12 MEMBER SONNABEND: Harriet?

13 MEMBER BEHAR: Are either of you aware  
14 of the studies that were done, I think about 12-14  
15 years ago, about there being higher antioxidants  
16 in crops grown in organic fields because the plants  
17 are exposed to some weed pressure, some insect  
18 feeding and that then challenges the immune systems  
19 of the plants which then result in higher  
20 antioxidant? I believe it was done by the American  
21 Chemical Society, and I know that Chuck Benbrook  
22 knows about that. Do either of you know about

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1 that?

2 DR. BIERNBAUM: Certainly aware of  
3 that, and both the individual studies and then  
4 there have been what they call the meta studies  
5 where they try to look at several things together.  
6 We heard within the last year or two the Stanford  
7 one that came to one set of conclusions that when  
8 people looked at it, they didn't all agree even what  
9 the conclusions were. But then there was one prior  
10 to that where they tried to isolate the studies and  
11 come up with comparisons, and often the challenges  
12 are, the difficulties, is it a good comparison or  
13 not? Are you comparing the system, or did you go  
14 to the grocery store and buy this and that which  
15 probably isn't a good comparison because there are  
16 so many other variables. But overall, my  
17 perception is there are some carefully-done  
18 studies that show some specific differences with  
19 higher antioxidants and phytochemicals say in  
20 organic systems versus other systems. But that's  
21 still something that where more data could be used.  
22 That's looking at the overall system and how does

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1 that affect the plant and how the plant is growing  
2 and the rate of growth and the amount of nitrogen  
3 fertilization and the amount of water. There are  
4 many factors there that people are considering.

5 DR. TOLLEFSON: One thing is that first  
6 of all, most of the meta-studies say it's not  
7 conclusive, organic versus conventional produce,  
8 no difference in nutritional quality.

9 But one thing I wanted to mention first  
10 of all, conventional and organic hydroponics can  
11 be easily designed to increase antioxidant levels.  
12 And there's much research out there on that. And  
13 typically, there is some research to show we have  
14 higher lycopene levels and antioxidant levels in  
15 an inorganic system.

16 However, when we look at bioponics,  
17 that's an organic system. This is organic input,  
18 so I don't see how -- we don't have the research  
19 out there yet because this is such an early emerging  
20 technology, but I would venture to guess that we  
21 would have the same type of nutritional quality as  
22 a field-grown organic system because it is an

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1 organic system.

2 DR. BIERNBAUM: That's one of the  
3 things that's really been lacking in that Sir  
4 Albert Howard brought that to the attention in 1940  
5 is that these studies where they look at fertility  
6 is they're really not looking at -- the question  
7 would be, could you grow in these hydroponic or  
8 bioponics systems crop after crop after crop and  
9 select the seed and continue to show that these  
10 plants would be healthy? That's a big if. But it  
11 is really at the foundation of our food and how our  
12 food is healthy is by growing in systems over long  
13 periods of time in closed systems, and there is  
14 concerns about that, that we haven't really done  
15 that type of work, and Sir Albert Howard raised it  
16 a long time ago, and it's something we still haven't  
17 really addressed.

18 MEMBER SONNABEND: Okay, I think we're  
19 out of time. And so I'd like to thank our panelists  
20 very much and we'll be hearing a lot more about this  
21 in the fall, and board members will have ample  
22 opportunity to talk about this within our

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1 subcommittee once we receive the report. Thank  
2 you.

3 (Applause.)

4 CHAIR FAVRE: Thank you to our  
5 presenters for being with us today and sharing your  
6 perspectives.

7 We're going to start the public comment  
8 portion of the meeting. I'd like to have a couple  
9 of reminders -- we're out of time, sorry.

10 (Laughter.)

11 CHAIR FAVRE: Just a couple of  
12 reminders. We have a very tight agenda, so please  
13 again, be very respectful of the time constraints.  
14 I don't want to, but I will, if I have to, inject  
15 myself and ask you to wrap things up if you have  
16 a tendency to go long.

17 It's three minutes for public comments.  
18 And Michelle, you want to go over the timer system?  
19 Actually, I might just say the timer blinks green  
20 first, then yellow, and then red. You'll get a  
21 buzz, which you just heard, when the red comes up.  
22 That means you're done. And then we'll have an

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1 opportunity for board members to ask questions.

2 I will ask all of you to keep it  
3 professional. We're all very passionate here, but  
4 please no personal attacks, and they will not be  
5 tolerated. And just as a reminder to everyone,  
6 please silence your cell phones.

7 We will be taking a break at 12:45 and  
8 we will return promptly after lunch starting back  
9 at 2, so if you're on the agenda to speak, please  
10 make sure you're back here at 2 because I don't want  
11 to have to delay the start of the meeting for the  
12 speakers' schedule, so if you're not back, we may  
13 have to proceed without you.

14 Michelle has -- if you have a  
15 presentation, Michelle has the clicker and is going  
16 to put it up there on the podium.

17 Michelle, do you have any other  
18 messages for public comments?

19 MS. ARSENAULT: No other messages, but  
20 I do want to thank people for all the notes that  
21 you added to your registration when you signed up.  
22 Very helpful for me, and I think I was able

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1 to accommodate everyone's travel schedules and all  
2 that, so I do appreciate that. Thanks.

3 CHAIR FAVRE: Okay, thank you. So  
4 first up for our speaking comments is Dave Chapman,  
5 and we're going to David Miskell on deck.

6 MR. CHAPMAN: Hello. I'm Dave  
7 Chapman. I own Long Wind Farm in Vermont. We grow  
8 organic greenhouse tomatoes. I have the  
9 distinction of being the only full-time farmer on  
10 the Hydroponic Task Force who actually grows in the  
11 ground.

12 I'm presenting a letter today to the  
13 NOSB that was written by seven organic farmers,  
14 three of whom are here today, and the letter is  
15 calling for a moratorium on certifying new  
16 hydroponic production as organic. It also calls  
17 for the NOP regulations banning hydroponics from  
18 organic certification to be created.

19 This letter is also going to Elanor  
20 Starmer and Secretary Vilsack. It calls for quick  
21 action to create a clear standard that supports the  
22 traditional meaning of organic. It's already been

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1 six years since the 2010 recommendation, so we hope  
2 that a moratorium will prevent hydroponic organic  
3 from becoming too big to fail as has happened in  
4 the past.

5 The letter was signed by 39  
6 organizations from around the world. Signers  
7 include NOC, all seven of the state NOFA chapters,  
8 MOFGA, OCIA, Center for Food Safety, Beyond  
9 Pesticides, Cornucopia, Organic Consumers  
10 Association, New England Farmers Union, Biodynamic  
11 Association, and Demeter.

12 From Holland, it includes Bionext,  
13 Federal of Organic and Biodynamic Farmers,  
14 Nautilus Organic, plus AIAB from Italy, BOLW from  
15 Germany, CAPE from Canada and Soil Association from  
16 England. And the Italian organization alone  
17 represents 10,000 organic farmers. It was also  
18 signed by 15 former members of the NOSB and 56 other  
19 leading farmers, soil scientists and organic  
20 advocates.

21 The signing organizations speak for  
22 well over 100,000 members, many of them organic

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1 farmers, many of them just people who care about  
2 organic. Very few of them actually grow  
3 vegetables in a greenhouse. They don't have a  
4 horse in this race. They simply care about  
5 preserving the meaning of organic certification.

6 We're at a crossroad for organic  
7 certification. It's a confusing place. No  
8 matter what happens now, it will be a defining  
9 moment for the organic movement around the world.  
10 Most people have little idea of how enormous the  
11 response will be from the hydroponic community as  
12 the doors to organic certification are opened.  
13 The ensuing flood of hydroponic production will  
14 have enormous consequences in terms of consumer and  
15 farmer trust in and support of the USDA organic  
16 seal.

17 In the end, will our decision enhance  
18 or damage the public trust in the organic label?  
19 Will this decision enhance transparency or will we  
20 have to hide what the new organic means? What  
21 happens when organic means one thing to the USDA  
22 and another thing to the organic community?

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1                   We hope that the USDA can have a nice  
2 day.

3                   (Laughter.)

4                   (Applause.)

5                   CHAIR FAVRE:   Any questions for Mr.  
6 Chapman? Harriet?

7                   MEMBER BEHAR:   I'm just curious as a  
8 member of the task force, do you feel like you'll  
9 be able to come up with a recommendation for us at  
10 the end? I mean how are things going in the --  
11 internally, I understand there's kind of two sides,  
12 and I'm just wondering how the communications are  
13 going and how we're moving forward.

14                  MR. CHAPMAN:   The mission to the task  
15 force, as we've been told over and over, is not to  
16 come up with a recommendation, but to provide  
17 information so that you can come up with one. But  
18 you know, clearly the way the task force was  
19 selected, it was not expected that we would come  
20 to consensus, and we will not. There are two  
21 really divergent points of view there. I have come  
22 to respect the other point of view and certainly

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1 have become friends with some of the people, but  
2 I still don't agree with them at all.

3 So I think that you will get two roads  
4 described that we might pass with a few possible  
5 clarifications of what this or that would mean.

6 CHAIR FAVRE: Any other questions?  
7 Okay, thank you very much.

8 MR. CHAPMAN: Thank you.

9 CHAIR FAVRE: Next up is David Miskell  
10 with Anais Beddard on deck.

11 MR. MISKELL: I'm David Miskell. I  
12 have an organic -- certified organic greenhouse,  
13 a half-acre in Charlotte, Vermont. I've been  
14 involved with organic farming for 42 years and with  
15 34 of them on my own farm.

16 I have testified throughout this whole  
17 process to the NOSB on the issue of organic  
18 hydroponics right from day one. And it sort of got  
19 left behind a little bit. As all of you know,  
20 farming is over a full-time job.

21 About three or four years ago, maybe  
22 five years ago, Dave Chapman and I started seeing

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1 lots of organic certified tomatoes coming from  
2 Mexico. And we kind of questioned, what's  
3 happening here? We did more research and found out  
4 that they were being grown hydroponically and were  
5 being certified as USDA organic.

6 Luckily, I have a neighbor, Jean  
7 Richardson, who I spoke with about that, and she  
8 showed me the 2010 recommendations, and I said  
9 well, how is this happening? Dave and I did more  
10 research and decided that we as farmers needed to  
11 work towards maintaining the organic integrity,  
12 which we have in the past five years.

13 I can be honest to say if it hadn't been  
14 for our push on this issue, this would not be talked  
15 about at all with NOP.

16 Our call for a moratorium is for a  
17 couple of reasons. One reason is this is  
18 confusing, and I've watched USDA in their process  
19 of making decisions. It's going to take forever  
20 as far as I can see. And it's what Dave said, it's  
21 going to become too big to fail. And this needs  
22 to stop.

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1           The other issue that came back out was  
2           how to certify. Are we going to need professional  
3           certifiers versed in organic hydroponics in order  
4           to be able to certify these places? Right now, VOF  
5           does not certify organic hydroponic. If the rule  
6           comes out to allow organic hydroponics, are all  
7           certification agencies going to have to be forced  
8           to certify this process?

9           Then you go back to organics from the  
10          start, which Dr. Biernbaum talked to them. It was  
11          a revolt against reductionism in the chemical  
12          fertilizer practice of growing. And they were  
13          focused on holistics. And this is the issue, as  
14          I've heard the presentation on the hydroponics.  
15          Thank you.

16          And I have a petition of names that we  
17          got from 2013 to 2016 supporting the NOS 2010 NOSB.

18                 CHAIR FAVRE: Thank you. Any  
19                 questions for David Miskell? Thank you. Next up  
20                 is Anais Beddard, followed by Tom Beddard on deck.

21                 MS. MISKELL: Hi. My name is Anais  
22                 Beddard and I'm the second generation at Lady Moon

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1 Farms. We're the largest organic vegetable grower  
2 east of the Mississippi, but we weren't always this  
3 size. Our farm was founded nearly 30 years ago by  
4 my parents when organic wasn't a buzz word and  
5 farmers markets weren't in every city.

6 They believed in the importance of  
7 biodiversity within the larger ecosystem and  
8 making sure you're putting more into the soil than  
9 what you're taking out. It was a radical approach  
10 back then with little to no support from the  
11 established agricultural community or land grant  
12 universities, but they persevered and they put  
13 blood, sweat, and tears to make the company what  
14 it is today.

15 I want a shot at continuing my parents'  
16 legacy. I want to provide healthy food that I know  
17 is grown with real commitment to making our  
18 nation's soils come alive through the judicious use  
19 of cover crops, compost, and crop rotation to name  
20 just a few of the sustainable practices that  
21 organic farmers use every day.

22 As I became entrenched in the

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1 agriculture industry, I met Dave Chapman and Dee  
2 Dee, and I began to research the soil and organic  
3 movement. Working closely with them, other  
4 farmers, help from the Cornucopia Institute and  
5 many other people, a petition was put forth that  
6 demands that the USDA and NOP accept the 2010 NOSB  
7 recommendation to prohibit soilless hydroponic  
8 vegetable production as certified organic.  
9 Here's that petition. I have it with nearly 1300  
10 signatures that we got in just a few short months  
11 this year.

12 We ask that you immediately institute  
13 a moratorium on the organic certification of all  
14 new hydroponic acreage until the final rule is  
15 issued.

16 To me, organic was always about the  
17 earth and the greater ecosystem. It never crossed  
18 my mind that a greenhouse without a speck of soil  
19 in it could sell organically. And it shocked me  
20 that we would allow hydroponic produce to be sold  
21 organically when those countries who were the main  
22 producers of such would not.

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1           Where is the reciprocity between  
2 countries? Where is the common sense?

3           I began talking to people; family,  
4 friends, colleagues, acquaintances, wondering if  
5 they were aware that the bell pepper or tomato they  
6 were eating was hydroponically produced while  
7 still organic. Not surprisingly, most of them had  
8 no clue.

9           When I explained what it was, they were  
10 shocked. As the consumer yearns to learn more  
11 about where their food comes from, will we let them  
12 continue to think the bounty is coming from the  
13 earth, rather than a sterile greenhouse  
14 environment? It's not that hydroponics are bad.  
15 As the population grows, when you're eight billion  
16 people, we need new ways to grow food. But is it  
17 organic? I think not.

18           The average age of the farmer in the  
19 U.S. is 60 years old. I'm only 28, nearing 30 as  
20 our farm does, too. What will the next 30 years  
21 look like? I hope Lady Moon Farms continues to  
22 provide healthy, organic food for generations to

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1       come. But this year has been an eye opener. The  
2       El Niño weather pattern took its toll on our Florida  
3       farms and I saw crops just diminish.

4               So I'll end quickly, just two more  
5       sentences. It's because of all of these reasons,  
6       organic, soil-based farmers must do all of this,  
7       plus a lot more and it's these reasons and effort  
8       putting into creating a richer, more sustainable  
9       soil that consumers pay a premium for organic  
10      produce.

11             Would consumers pay this higher premium  
12      if they saw the factory hydroponic greenhouses? I  
13      don't think they would, but right now they don't  
14      have the choice. So thank you, and here's the  
15      petition.

16             CHAIR FAVRE: Thank you. Any  
17      questions for Anais? Thank you very much.

18             Next up is Tom Beddard, and then we have  
19      Pete Overgaag on deck.

20             MR. BEDDARD: It is Beddard, but that's  
21      okay, and her name is Anais. Good afternoon, NOSB  
22      board members. My name is Tom Beddard. I along

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1 with my late wife, Christine, founded Lady Moon  
2 Farms in Selinsgrove, Pennsylvania on a worn out,  
3 rocky, 22-acre farmette that in 1988 had little  
4 potential for making a living. It was, however,  
5 on this very unlikely piece of ground that together  
6 we saw some unknown potential others couldn't see.

7           And what was it about Chris and I that  
8 allowed us to see something so unlikely? I believe  
9 that it was our firm belief in the fact that soil  
10 is a living organism, one that when cared for  
11 properly teems with life in many, many forms, seen  
12 and unseen. And because of this, even old, worn  
13 out soil could be brought back to life through the  
14 principles of what is commonly known as organic  
15 farming.

16           It is this love of the soil over most  
17 of my life that brings me here today. Lady Moon  
18 Farms is now the proud caretaker of almost 3,000  
19 acres in three states, farming on many different  
20 soils in different climates, and yet this founding  
21 principle of organic farming has never failed us.  
22 For us to be a certified organic farmer begins and

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1 ends with how we care for the soil.

2 The soil truly is the soul of organic  
3 farming, and this is a sentiment shared by the vast  
4 majority of certified organic farmers worldwide.

5 We were the seventh farm to ever be  
6 certified organic in Pennsylvania way back in 1988,  
7 and now almost 30 years later, I am troubled by the  
8 fact that there is a somewhat new but rapidly  
9 expanding production system, a production system  
10 that uses no soil and yet wears the highly coveted  
11 USDA certified organic seal. It troubles me that  
12 the NOSB way back in April of 2010 recommended to  
13 the NOP that hydroponic vegetable operations do not  
14 meet the high standards set forth in OFPA.

15 I remember clearly, as past president  
16 of the Eastern PA Chapter of OCIA and the founding  
17 president of PCO, all the discussions that the  
18 organic community had with itself over the pros and  
19 cons of the Federal Government creating a certified  
20 organic seal through the USDA. One of the main  
21 benefits was the idea of reciprocity, that what it  
22 meant to be certified organic would be the same all

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1 over the world. And yet, in 2016, we find  
2 ourselves wondering how the NOP can allow products  
3 grown without soil to be sold in the United States  
4 as certified organic, mostly produced in Canada,  
5 Mexico, and Holland, when these same products  
6 cannot be sold as certified organic in their own  
7 countries.

8 How is this possible? It just makes no sense.

9 Mexico, Canada, Japan, New Zealand and  
10 24 European countries all prohibit hydroponic  
11 vegetable production, yet their producers are able  
12 to export their products to the United States'  
13 organic premium market, hurting the bottom line of  
14 domestic soil-based farmers. It threatens the  
15 integrity of the USDA seal and what it means to be  
16 a certified organic grower in the United States.  
17 And this simply cannot be allowed to stand.

18 In 2010, the NOSB made a clear  
19 recommendation: hydroponic systems should not be  
20 eligible for organic certification. I urge the  
21 NOP to respect that decision and enforce it. As  
22 one of our Founding Fathers once said, "While the

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1 farmer holds the title to the land, actually, it  
2 belongs to all the people because civilization  
3 itself rests upon the soil." And I can keep going  
4 because the light didn't go off?

5 CHAIR FAVRE: I was going to say, I  
6 don't think our timer got reset for you. Thank  
7 you.

8 MR. BEDDARD: How long was it?

9 CHAIR FAVRE: We appreciate you  
10 self-monitoring.

11 MR. BEDDARD: And I had to cut stuff  
12 out. I was going to go further.

13 CHAIR FAVRE: Do we have any questions  
14 for Tom?

15 MR. BEDDARD: Thank you, and I did want  
16 to say thank you for your volunteer service.  
17 That's something that I don't think people  
18 understand because I've been asked. That's a real  
19 time commitment, and I honor you all for that.  
20 That is truly amazing. Thank you.

21 CHAIR FAVRE: Thank you. That's nice  
22 to hear.

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1 (Applause.)

2 CHAIR FAVRE: Okay, next up is Pete,  
3 and Pete pronounce your last name for me.

4 MR. OVERGAAG: Overgaag.

5 CHAIR FAVRE: Okay, I got that one  
6 right. Good job. And then on deck is Mark Kastel.

7 MR. OVERGAAG: Thank you. I'm with  
8 Hollandia Produce. I'm a third generation  
9 greenhouse grower, growing lettuce and watercress.  
10 Both my grandparents in Holland were greenhouse  
11 growers, as were my parents, who immigrated to the  
12 USA in the 1960s and continued on with greenhouse  
13 growing here. So I grew up in the greenhouse  
14 business.

15 My dad showed me how to grow cut flowers  
16 when I was ten years old, and he helped me set up  
17 my own small plots of production, which I started  
18 from seed, grew to finish, and then harvested and  
19 sold to the local street corner flower stands.

20 Our company started with hydroponic  
21 vegetables back in 1986 using conventional  
22 fertilizers at the time. It was very exciting to

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1 see the efficiency improvements that hydroponics  
2 brought: less labor, more production per acre,  
3 and of course, major water savings. California  
4 had drought periods then as well, just as we do now.

5 About eight years ago after hearing  
6 bits and pieces of info about organic container  
7 growing being possible, we decided we had to figure  
8 this out. We set the goal of learning this process  
9 and then later set the end goal of switching our  
10 entire operation over to organic container  
11 growing. We still have more areas to convert, but  
12 all of our new areas are set up as organic from the  
13 start.

14 This head of lettuce that I have here  
15 was grown organically, not one synthetic input was  
16 used. Everything we use is OMRI-approved. We  
17 have biological activity in the starter growing  
18 media as well as in the water that's circulating  
19 throughout our system.

20 We've always been sustainable growers,  
21 releasing predatory insects even on our  
22 conventional crops, conserving water, recycling

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1       our waste, et cetera, et cetera. It has always  
2       been in my blood to be sustainable and conservative  
3       with resources. Only use what you need, and save  
4       what you can. For example, I have three types of  
5       solar systems on my home. My electric bill is  
6       about \$1.35 per month and my gas bill is about \$15  
7       a month. I bring this up because I believe in  
8       sustainable technology, and I am thankful that  
9       these solar systems have been developed so I can  
10      live in a sustainable manner. It just makes sense.

11               Looking back, it would have been quite  
12      a shame if the solar industry had been stifled and  
13      held back by naysayers who insist on things staying  
14      the same and not allowing new methods to be  
15      developed and implemented. I draw this  
16      correlation of what's happening here in the organic  
17      world. We have this great method of producing  
18      organic food that is more sustainable and  
19      economically viable than the old ways. It should  
20      be supported, not stifled. Thank you.

21               CHAIR FAVRE:       Thank you.       Any  
22      questions for Pete? Thank you very much. We

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1 appreciate the lettuce.

2 MR. OVERGAAG: I want to answer one  
3 question from earlier. We don't use ozone in our  
4 systems. It's all living. No ozone.

5 CHAIR FAVRE: Thanks. Thank you.

6 (Applause.)

7 CHAIR FAVRE: Next up is Mark Kastel  
8 and then we've got Patricia Kane on deck.

9 MR. KASTEL: My name is Mark Kastel. I  
10 act as the Cornucopia Institute's senior farm  
11 policy analyst. I'm proud to be here today  
12 representing our approximately 10,000 members  
13 including a sizable percentage of the organic  
14 farmers in the U.S., including many folks who are  
15 here testifying.

16 When you hear some of the industry  
17 denigrating our credibility of Cornucopia, they  
18 are dissing these hard-working farmers, including  
19 many of the agrarian elders and leading voices in  
20 organic agriculture. This industry has morphed  
21 from a farmer-led organization and movement to an  
22 oligarchy.

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1           My comments today will help connect  
2           some of the dots. We now have the pasture rule.  
3           We have giant CAFOs placing ethical farmers at a  
4           competitive disadvantage. Many are milking  
5           three, even four times a day with 100 percent  
6           confinement for their top producing cows. We have  
7           filed a number of complaints, including against the  
8           WhiteWave/Horizon dairy in Idaho. They've never  
9           been investigated by the USDA based on FOIA  
10          records, but their certifier, QAI, says that  
11          they're in compliance. Case closed.

12           WhiteWave's chief lobbyist sits on the  
13          OTA Board and has been instrumental in the  
14          appointment of current and past NOSB members.  
15          Money speaks loudly in Washington.

16           Mr. Miles McEvoy sent a letter to the  
17          industry five and a half years ago explicitly  
18          saying that organic producers, egg producers "must  
19          provide livestock with an opportunity to exit any  
20          barn or other enclosed structure." Other  
21          structure. That would mean a porch. Five and a  
22          half years later, no enforcement.

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1                   Today, in 2016, the vast predominance  
2 of organic corn and soybeans and many other grains  
3 are being imported from countries with a history  
4 of endemic commercial fraud with incredibly weak  
5 oversight by the USDA. And who's minding the  
6 organic materials' chicken coop?

7                   Congress explicitly, explicitly  
8 empowered the NOSB to hire their own technical  
9 review scientists. The USDA has always violated  
10 this provision of the law. At one point, the OTA's  
11 scientific arm was doing the TRs. Now one of the  
12 most prolific contractors is the Organic Materials  
13 Review Institute. They earn \$2.5 million a year  
14 worth of funding from the industry they are  
15 scrutinizing. Their board includes executives  
16 from General Mills, the Organic Trade Association,  
17 and many other industry interests.

18                   Who are the authors of these reports?  
19 We don't know. It's secret.

20                   We do know that the technical reviews have  
21 conveniently left out many scientific reports that  
22 would be damaging to industry interests.

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1           Some of the most prominent brands  
2 represented on this Board have the lowest scores  
3 in the Cornucopia and OSB score card.  
4 Cornucopia's radical scoring criterion -- I really  
5 timed this carefully. I have a little bit left.  
6 Just a little bit.

7           CHAIR FAVRE: A little bit.

8           MR. KASTEL: Sure. Thank you, Madam  
9 Chair. Our scoring criteria is 100 percent  
10 compatible with the other NGOs, so I'm appealing  
11 now to the NOSB members and the veteran members who  
12 are dedicated to organics and are willing to take  
13 a hard, independent look. Please consider the  
14 comments of Cornucopia scientists and other  
15 nonprofits when making your decisions. Please  
16 table the PPM revision because that is rubber  
17 stamping the changes that the USDA made. You're  
18 now going to bring the PPM into compliance with the  
19 changes they made without the input of this Board.  
20 Thank you very much.

21           CHAIR FAVRE: Thank you. Any  
22 questions for Mark?

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1 Thank you, Mark.

2 MR. KASTEL: Thank you.

3 CHAIR FAVRE: Next up is Patricia Kane,  
4 followed by Christie Badger on deck.

5 MS. KANE: Hello. I'm Patricia Kane.  
6 I'm the coordinator of the Accredited Certifiers  
7 Association, and thank you for the opportunity to  
8 provide comments.

9 My original comments were going to be  
10 a request to the Compliance, Accreditation, and  
11 Certification Committee to take up the discussion  
12 of NOP 2027, the instruction pertaining to  
13 performance evaluations. But now I don't have to  
14 do that. Thank you very much for doing that.

15 The instruction reviews the  
16 requirements for certification agencies relating  
17 to annual personnel performance evaluations.  
18 Included in the instruction document is a section  
19 on field evaluation. This was a new requirement  
20 for certification agencies to conduct an annual  
21 on-site evaluation of all inspectors. ACAs do  
22 support the tool of on-site evaluation of

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1 inspectors and find it valuable. However, even  
2 without that component of the evaluation, all  
3 inspectors undergo performance evaluation every  
4 year. The formal performance evaluation is in  
5 addition to the evaluation of each inspection  
6 report that is submitted to the agency.

7 There are two main issues with the  
8 instruction document that are extremely  
9 problematic for certification agencies. They are  
10 now required to conduct a field evaluation of each  
11 inspector every year at the expense of the agency,  
12 regardless of the number of inspections conducted  
13 by the inspector for that agency. Even though the  
14 instruction states inspectors should be evaluated  
15 during an on-site inspection by a supervisor or  
16 peer at least annually, the NOP is interpreting the  
17 should as a must, requiring ACAs to conduct the  
18 annual on-site evaluation of inspectors, and if  
19 they are not conducted, noncompliances are issued  
20 to the agency.

21 So in the two years since the  
22 publication of the instruction, certification

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1 agencies' budgets have increased dramatically.  
2 Many agencies have significantly reduced the  
3 number of inspectors being used, and inspectors are  
4 undergoing multiple evaluations each year if they  
5 work for multiple agencies, consuming a lot of time  
6 and effort.

7 So we've identified just a few issues  
8 that we would like the Board to look at, and one  
9 is a lack of public input on this new requirement;  
10 the NOP interpretation of should as a must in the  
11 issuing of noncompliances; the identification of  
12 the nature of the concerns and problems that NOP  
13 is attempting to correct; why a risk-based approach  
14 to conducting annual field evaluations is not  
15 acceptable; and the lack of specific NOP  
16 requirements, guidance, and instruction for  
17 inspector education and training, despite having  
18 information on that provided by IOIA.

19 We would like to extend our  
20 appreciation to the NOSB for their continued work  
21 you are doing on the difficult topics of excluded  
22 methods, seed purity, and attempting to sort out

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1 the work of the sunset process. Thank you.

2 CHAIR FAVRE: Thank you for that. I  
3 apologize. We're having some technical  
4 difficulties, I think, with the lighting system,  
5 but Michelle is keeping track over there, and you  
6 were within your time limit. So thank you.  
7 Questions? Yes. Jean?

8 MEMBER RICHARDSON: Pat, I'd just like  
9 to thank you for bringing this issue to the  
10 attention of the NOSB. And also to the NOP for  
11 being so quick to agree that this is an issue that  
12 we need to understand more about in order to ensure  
13 the integrity of organic inspections nationwide.  
14 What would be helpful to the CACS Subcommittee  
15 during the next few months as we review this is we  
16 can't do a survey. We're the NOSB. But anything  
17 that you can provide us in the way of specific data,  
18 facts, that help us to understand what the costs  
19 are in dollars in terms of the budgets, especially  
20 for the larger certifying agencies that they are  
21 then having to put into their budget and to the  
22 degree to which that then becomes sustainable over

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1 time, if in fact having to do these inspections  
2 every year takes place without flexibility,  
3 although it does appear that there is some  
4 flexibility built into that.

5 And anything you can provide us also to  
6 suggest alternative methods for ensuring that  
7 indeed we inspectors are inspected in the field on  
8 a regular basis, any kind of proposals that we could  
9 look at to evaluate so that we can provide -- based  
10 on the public comment from you and from other  
11 inspectors, et cetera, so that we can provide the  
12 most useful information as quickly as possible back  
13 to the NOP in regards 2027. Thank you.

14 MS. KANE: Thanks, Jean. Yes, we can  
15 do that. We've already talked about gathering the  
16 financial data on this, and I know a lot of our  
17 members have plans in place and ideas to address  
18 this.

19 CHAIR FAVRE: Harriet.

20 MEMBER BEHAR: I know it's really in  
21 the certifiers' interest to make sure that they are  
22 using inspectors that are competent and doing a

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1 good job, so I'm wondering within ACA, are you  
2 working on a system of evaluation that those  
3 various certifiers all feel comfortable with, so  
4 if one certifier evaluates an inspector, the other  
5 certifiers will accept that? Basically looking  
6 for consistency in the evaluation process?

7 MS. KANE: First, I think there is  
8 interest in doing that, and the second is that was  
9 only really put forth as an option in the March  
10 revision of the document, so I know that several  
11 certifiers are talking to other certifiers about  
12 that, so I think work will be done on that.

13 CHAIR FAVRE: Harold.

14 MEMBER AUSTIN: Pat, also, if you could  
15 help provide us with some input as you're working  
16 with the other agencies and stuff on gathering the  
17 information, if there would be possibly any  
18 unintended consequences on those that you certify.

19 CHAIR FAVRE: Thank you very much.

20 MS. KANE: Thank you all.

21 CHAIR FAVRE: Next up is Christie  
22 Badger, followed by Theoary Crisantes, if I got

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1 anywhere close to that.

2 MS. BADGER: Hi. My name is Christie  
3 Badger, and I'm speaking today on behalf of the  
4 National Organic Coalition. Thank you for the  
5 opportunity to be a part of this exciting process  
6 and thank each of you for all of the work that you  
7 do to further strengthen the integrity of the  
8 organic label.

9 NOC supports the relisting of peracetic  
10 acid to the National List for all uses. However,  
11 we feel that the NOSB would benefit from a view of  
12 sanitizers and disinfectants as a class to aid the  
13 NOSB, organic producers, and the general public  
14 with future reviews of these items as they come  
15 before the Board, either as a new petition or at  
16 sunset.

17 This is a critical next step to be  
18 consistent with the continuous improvement  
19 approach to organic agriculture, which NOC members  
20 strongly endorse. The listing of this class of  
21 materials has been responsive to petitions and  
22 historical use without the benefit of research into

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1 which could be most compatible with organic  
2 production. This type of research would provide  
3 the NOSB with the background they need to make  
4 informed decisions when these materials come  
5 before the Board. We recommend this topic of  
6 information gathering on sanitizers and  
7 disinfectants be placed on the NOSB work agenda.

8 NOC urges the NOSB to take the sunset  
9 review of List 3 inerts seriously and act in a  
10 timely manner, as it must with the review of all  
11 sunset materials, reviewing to the OFPA criteria  
12 as required by law. While NOC recognizes that the  
13 fall 2015 NOSB recommendations for inerts has been  
14 reviewed by the NOP with plans to collaborate  
15 further with the EPA's Safer Choice program for  
16 future review of inert ingredients, it's  
17 imperative that List 3 inerts are reviewed at this  
18 time to maintain the integrity of the sunset review  
19 process.

20 NOC believes there is a necessary next  
21 step remaining after the approval of the fall's  
22 recommendation for safer choice inerts to be placed

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1 on the National List. The NOP, with the NOSB  
2 involvement and the EPA, should draft and sign a  
3 Memorandum of Understanding detailing the  
4 interaction of the EPA's Safer Choice program with  
5 the NOP's National List.

6 Materials used in organic production  
7 are subject to the OFPA criteria, and EPA's  
8 criteria for the SCIL do not cover all the OFPA  
9 criteria. Consistent with OFPA, there should be  
10 a mechanism for the NOSB to not allow a subset of  
11 the safer choice inerts, and the method for making  
12 that determination should be part of the MOU.

13 As part of the MOU, interaction between  
14 the NOSB and EPA should continue in order to aid  
15 the EPA in understanding the OFPA criteria and help  
16 the EPA identify inerts that might be questionable.

17 CHAIR FAVRE: Thank you.

18 MS. BADGER: Thank you.

19 CHAIR FAVRE: Any questions for  
20 Christie? Harriet?

21 MEMBER BEHAR: It's more a question for  
22 Miles. I'm just wondering if there is any

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1 discussion about a Memorandum of Understanding in  
2 helping us with those inerts and especially  
3 possibly certain safer choice inerts that maybe we  
4 would not want to be used in organic agriculture.

5 MR. McEVOY: Emily.

6 MS. BROWN ROSEN: There's going to be  
7 an update on the Inerts Working Group later in the  
8 agenda with the crops, so I think we can go into  
9 it in more detail then.

10 CHAIR FAVRE: Any other questions?  
11 Harold.

12 MEMBER AUSTIN: Christie, we've gotten  
13 several comments back asking for us to look at an  
14 overall overview of the sanitizers and  
15 disinfectants. I guess my question out there to  
16 you would be what would be the value completely of  
17 lumping those together where like we just now got  
18 back the one for crops for the peracetic acid one,  
19 so we haven't -- that will come forward in our fall  
20 discussion because it was late in arriving.

21 We're getting more and more TRs back on  
22 all of these materials. Wouldn't we get more

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1 information provided via a TR on a specific  
2 material rather than lumping them all together and  
3 then doing an overview? I guess I'm just trying  
4 to find out what's really driving everybody wanting  
5 to -- the few commenters that have wanted to lump  
6 them together rather than a specific in detail, in  
7 depth TR review on material?

8 MS. BADGER: I can just tell you that  
9 in my work with NOC and helping to coordinate their  
10 work on providing their comments to the NOSB, one  
11 of the things that comes up when new materials are  
12 petitioned or materials come up for review is  
13 looking at is that the best material out there, and  
14 how many other materials are there that can do the  
15 same job. And in our comments, which I hope you've  
16 all had an opportunity to read, you'll see that we  
17 do recognize that we understand that different  
18 materials are needed to do the job in order to not  
19 create say super bugs or whatnot by not having  
20 enough to switch them out.

21 But I think when you're evaluating new  
22 materials, it's really hard to tell what is

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1 currently already available and where does it stand  
2 on a list of good, better, best, not good, things  
3 like that.

4 CHAIR FAVRE: Thank you, Christie.

5 MS. BADGER: Thank you.

6 CHAIR FAVRE: Next up.

7 MR. CRISANTES: Yes, I'm fine.

8 Thanks.

9 CHAIR FAVRE: In the interest of  
10 helping me out here, pronounce your name for me.

11 MR. CRISANTES: Theojary Crisantes.  
12 Theo for short.

13 CHAIR FAVRE: Got it. Thank you. Go  
14 ahead. Bear with us while we're trying to -- there  
15 we go. Not yet. Working on technology issue  
16 again.

17 Michelle, you want to go ahead and just  
18 -- okay. Does he have his presentation there that  
19 he can speak from? Okay.

20 Why don't we go ahead and let you get  
21 started. I want to apologize for not having the  
22 presentation projected.

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1 MR. CRISANTES: All right, anyways,  
2 good afternoon, ladies and gentlemen, members of  
3 the NOSB Board. My name is Theojury Crisantes.  
4 I'm from Wholesome Harvest.

5 Today, I would like to address the Board  
6 about organic container growing. Wholesome  
7 Harvest is a family company that has been owned and  
8 operated for three generations of farmers. We  
9 have more than three decades of experience of  
10 organic growing and ten years since all of our  
11 production is 100 percent organic following the  
12 National Organic Program.

13 As a company, we currently have 150  
14 years of combined professional knowledge of  
15 organic growing in our operation. At Wholesome,  
16 we grow organic vegetables in diverse production  
17 methods such as glass houses, protected  
18 agriculture, and open field, in different  
19 locations in Arizona, Sonora, and Sinaloa.

20 The diversity of locations and products  
21 that we grow have led us to find site-specific  
22 requirements to achieve our goals: produce the

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1 best organic produce possible with the least  
2 possible impact.

3 Can you just go down more and more and  
4 more and more -- more. There. Yes, please.

5 For the Arizona desert, we have chosen  
6 to grow our tomatoes inside the greenhouse in a  
7 container filled with organic enriched cocoa coir.  
8 To establish the correct biology in the root zone,  
9 we start by soaking the cocoa with our biology-rich  
10 composting, fish emulsion and soil meals. As the  
11 plant roots in, and the symbiosis between the plant  
12 and the microorganisms flourishes, we see an  
13 explosion of life emerging to the point that we can  
14 find a complete ecosystem in our buckets.

15 Next. As you can see in the picture,  
16 a larger number of springtails and earthworms,  
17 next, are found on the surface of the buckets.  
18 These are the visible members of the ecosystem.

19 Next. Here's the bottom line. I  
20 wanted to share with you the results of our recent  
21 biological analysis of our bucket. It shows a  
22 complete ecosystem that includes a high number of

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1 bacteria, fungi, protozoa, and nematodes with a  
2 total nitrogen-cycling potential of 300 plus  
3 pounds of nitrogen per acre, suitable for  
4 supporting and helping tomato plants.

5 Next. Once we are finished with the  
6 cocoa coir on our tomato crop, we have several uses  
7 for it. Specifically, in our farm in Arizona, we  
8 incorporate the cocoa coir to an open field to grow  
9 Sudangrass as hay, to be used by local farmers to  
10 feed their animals.

11 Next. We are always looking for  
12 solutions and methodologies to foster the cycling  
13 of resources and promote ecological balances and  
14 conserve biodiversity. Thank you very much.

15 CHAIR FAVRE: Thank you, and my  
16 apologies for the technology snafu there. Any  
17 questions for Theo? Thank you very much.

18 Our final commenter today before our  
19 lunch break will be Melody Meyer.

20 MS. MEYER: My name is Melody Meyer.  
21 I'm with United Natural Foods, Incorporated. I  
22 thank you for the opportunity to provide comments.

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1 I've been up here many times talking about emerging  
2 technologies and synthetic biology, so I'm really  
3 thrilled that you're requesting comments on the  
4 definition of excluded methods.

5 The proposed definitions that are put  
6 forward are a priority, but I do think they need  
7 some revisions. I recommend separating out the  
8 definitions from the rest of the proposal and  
9 moving the definitions forward as an independent  
10 recommendation.

11 The terminology chart and criteria  
12 principles, they do need more time and attention.  
13 I recommend taking those back to an independent  
14 committee of experts and affected communities for  
15 further work and input.

16 The goal of this committee would be to  
17 release a final proposal prior to the fall 2016 NOSB  
18 meeting.

19 I recommend as genetic engineering  
20 evolves, and we have these emerging technologies,  
21 so should the definition, and that it should be  
22 broadened to address not just genetic material, but

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1 genetic systems. I recommend that several to be  
2 determined techniques should be included in the  
3 list of excluded methods before moving the proposal  
4 forward.

5           Regarding the definition, it's best to  
6 utilize the definition used by CODEX over the  
7 Cartagena Protocol definition for several reasons  
8 that I've outlined in the rest of my comments. The  
9 definition of biotechnology should refer to CODEX,  
10 but without the reference to Cartagena because this  
11 adds potential confusion about what is an LMO and  
12 a GMO.

13           Next, I want to comment on seed purity  
14 next steps. Thank you for the opportunity to  
15 provide comments on this. Many think that we can't  
16 really move forward, but I think it's a critical  
17 control point that we do. We shouldn't wait to set  
18 limits for controlling the unintended or  
19 unavoidable presence of GMOs.

20           Some of the things that I want to  
21 highlight that need attention, NOP seed guidance  
22 does not address the prohibition on excluded

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1 methods for sourcing of seeds, annual seedings and  
2 planting stock. The NOP seed guidance does not  
3 require growers to contact more than three sources  
4 for seed. NOP's guidance does not establish  
5 organic seed usage as an organic systems planned  
6 goal. It doesn't address the requirements of a  
7 certified buyer or handler purchasing seed  
8 planting stock for contractual growing purposes.  
9 And it should probably reference the Organic Seed  
10 Finder as a resource.

11 I urge the USDA to establish and appoint  
12 a Seed Purity Advisory Task Force whose primary  
13 function would be to design a feasibility study  
14 based on testing and data collection. The study  
15 would evaluate a rigorous and realistic threshold  
16 supporting the seed purity standard for  
17 non-organic seeds.

18 And my final comment was on  
19 biodegradable mulch. I'll keep bringing that up.  
20 I think that should be an allowed tool for organic  
21 farmers as we seek continuous improvement. Thank  
22 you very much for your hard work and especially to

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1 the NOSB for all the time you put in. Let's have  
2 lunch.

3 CHAIR FAVRE: Zea, you had a question?

4 MEMBER SONNABEND: Thank you, Melody,  
5 on the excluded methods terminology comment, how  
6 do you suggest such an independent scientific task  
7 force get organized, recruited and funded before  
8 the fall meeting?

9 MS. MEYER: I don't have an answer to  
10 that right at this moment, but I could help you  
11 brainstorm on it. I think there is more input  
12 needed from the community.

13 CHAIR FAVRE: Any other questions?  
14 Thank you. And I think we will now break for lunch.

15 Folks, we want to be back here promptly  
16 for the first commenter to start at 2:00 and that  
17 would be Jim Gerritsen. So Jim, if you'll make  
18 sure you're here right at 2. Thank you.

19 (Whereupon, the above-entitled matter  
20 went off the record at 12:55 p.m. and resumed at  
21 2:01 p.m.)

22 CHAIR FAVRE: Okay, folks. By my

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1 reckoning we've got one minute after 2:00. If all  
2 the Board members would take their seats.

3 Thank you, Jim, for being here on time  
4 as I requested.

5 Okay. We're going to start back with  
6 public comments again. First up for the afternoon  
7 is Jim Gerritsen. On deck is Julie Weisman.

8 Thank you, Jim

9 MR. GERRITSEN: I'm Jim Gerritsen.  
10 I've been farming for 40 years on Wood Prairie Farm  
11 in the State of Maine. We've been certified  
12 organic by MOFGA for 34 years and I have served as  
13 a volunteer on the MOFGA Certification Committee  
14 for 25 years.

15 In addition to farming full time I am  
16 president of Organic Seed Growers and Trade  
17 Association and I serve as a policy advisor to the  
18 Cornucopia Institute.

19 I'm also a member of a group of  
20 experienced organic farmers, each with decades of  
21 organic farming experience, totaling over 1,000  
22 years. This group is called the Agrarian Elders.

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1 I'd like to read into the record from this letter,  
2 and I've placed that letter at each of your desks  
3 there. It's signed by 22 elders.

4 "Dear NOSB members, as agrarian elders  
5 we want to tell you how concerned we are about the  
6 organic farming movement losing connection with  
7 its roots and traditional organic concepts. Here  
8 are some examples.

9 "Production of milk, meat and eggs from  
10 giant CAFOs which overtly skirt the letter and  
11 spirit of the organic law, betraying consumer  
12 trust, the flood of imported organic commodities,  
13 including corn and soybeans, now making up the  
14 majority of the market and shutting out U.S.  
15 farmers. Allowing hydroponics to be certified as  
16 organic is just one area where the USDA has refused  
17 to respect the NOSB and its past deliberations and  
18 is defrauding the public. The current wholesale  
19 usurping of the historic NOSB process through  
20 shifting the power of board governance from the  
21 NOSB to the USDA NOP leadership.

22 "We are writing respectfully to ask you

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1 to consider carefully the research that is  
2 performed by the Cornucopia Institute and other  
3 non-profits respected by the organic farming  
4 community in your deliberations."

5 The letter continues, but it is signed  
6 by 22 elders: Michael Ableman, Foxglove Farm,  
7 British Columbia; Eliot Coleman and Barbara  
8 Damrosch, Four Seasons Farm, Maine; Jean-Paul  
9 Courtens, Roxbury Farm, New York; Gloria and Steve  
10 Decatur, Live Power Farm, California; Carly  
11 DelSignore, Tide Mill Farm, Maine; Jim Crawford,  
12 New Morning Farm, Pennsylvania; Jim Gerritsen,  
13 Wood Prairie Family Farm, Maine; Jake Guest,  
14 Killdeer Farm, Vermont; Andrea Hazzard, Hazzard  
15 Free Farm, Illinois; Betsy Hitt, Peregrine Farm,  
16 North Carolina and others.

17 CHAIR FAVRE: Thank you. Any  
18 questions for Jim? Tom?

19 VICE CHAIR CHAPMAN: Hi Jim. I have a  
20 question related to your written comments. OSGATA  
21 was the only organization who wrote in opposition  
22 to the sunset reorganization for 2017 items to

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1 spread it evenly throughout the years.

2 MR. GERRITSEN: Can you speak up a  
3 little bit, Tom?

4 VICE CHAIR CHAPMAN: Yes, OSGATA was --  
5 can you hear me now?

6 MR. GERRITSEN: Yes.

7 VICE CHAIR CHAPMAN: OSGATA was the  
8 organization who wrote in opposition to these  
9 sunset reorganization for 2017 to spread those  
10 materials evenly across the years. Can you speak  
11 to your opposition to that?

12 MR. GERRITSEN: I don't recall that as  
13 being part of our comments. If it was, I would say  
14 that that was a mistake.

15 VICE CHAIR CHAPMAN: Okay.

16 MR. GERRITSEN: We do have opposition  
17 to the Board moving on the sunset rule since OSGATA  
18 is one of the 10 plaintiffs in litigation against  
19 the USDA because we feel that that action was  
20 illegal.

21 VICE CHAIR CHAPMAN: So you meant those  
22 comments against the PPM, not against the sunset?

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1 MR. GERRITSEN: I'd have to look at  
2 them to be sure, but we think that there needs to  
3 be some common sense, and it needs to be spread out  
4 evenly. So if we did err in those comments, the  
5 intent is to try to make it reasonable for you as  
6 a board and evening them out.

7 VICE CHAIR CHAPMAN: Thank you.

8 MR. GERRITSEN: Yes.

9 CHAIR FAVRE: Any other questions?

10 (No response.)

11 MR. GERRITSEN: Thank you.

12 CHAIR FAVRE: Thank you very much.

13 Okay. Next is Julie Weisman, and  
14 following that is Cameron Harsh on deck.

15 MS. WEISMAN: Good afternoon. My name  
16 is Julie Weisman. As an owner of Elan Vanilla and  
17 Flavorganics I have been making certified organic  
18 vanilla extract for almost 20 years now.

19 I served on the NOSB from 2005 to 2010, during  
20 which time I chaired the Handling Committee and  
21 served as both secretary and vice-chair of the  
22 Board. I extend a hearty welcome to the six new

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1 members. Thank you in advance for your hard and  
2 important work that you'll be doing for the next  
3 five years.

4 I will talk today about excluded  
5 methods. The language crafted in 1995 was a  
6 cornerstone of our infant rule; however, an update  
7 of the NOP's language and regulations regarding  
8 excluded methods, and genetic engineering in  
9 particular has suddenly become long overdue. The  
10 technology has become so complex and fast changing  
11 that the way the NOP limits their use may require  
12 a different structure.

13 The NOP, with NOSB oversight of  
14 rulemaking, is a deliberate and thorough process  
15 and it should remain ever so. However, it may not  
16 be a good fit with keeping abreast of the onslaught  
17 of new methods placing novel organisms in the  
18 supply chain and into the stream of commerce.

19 In my tiny corner of the organic supply  
20 chain, vanillin, normally produced in vanilla  
21 beans and other plants, is now excreted by  
22 genetically re-engineered yeast. This vanillin

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1 is used in flavors, and such flavors may be labeled  
2 and sold as natural because under FDA definitions  
3 products of fermentation are natural, without  
4 regard to the provenance of the organism doing the  
5 fermenting.

6 Makers of NOP-compliant flavors;  
7 that's not organic flavors, are often not certified  
8 organic and not themselves familiar with NOP  
9 regulations on GMOs. They may have no idea that  
10 their ingredient contains a product of genetic  
11 engineering.

12 Now, this particular conundrum will be  
13 remedied by adding language to flavor  
14 questionnaires that asks if the flavor contains  
15 natural vanillin as we currently do for citric  
16 acid. And it will also be remedied once the new  
17 annotation prioritizing use of organic flavors,  
18 which was passed in Vermont in the fall, becomes  
19 a final rule.

20 However, in considering the potential  
21 universe of threats posed by genetic engineering  
22 to the organic industry, a more proactive procedure

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1 may be called for, and I therefore support the  
2 suggestion of my colleague Dag Falck at Nature's  
3 Path, that with regard to GE methods the NOP move  
4 from defining excluded methods to defining allowed  
5 methods.

6 And further, I recommend that the  
7 allowance of new methods occur through the use of  
8 the same petition process that we currently use to  
9 add substances to the National List. Might even  
10 be a new section on the List. This would bring  
11 consideration of these novel technologies into the  
12 sunlight and provide an opportunity for public and  
13 often expert comment which has served the rule and  
14 this industry so well.

15 So in summary, please consider a revamp  
16 of the treatment of genetic engineering under the  
17 National Organic Program so that many horses will  
18 not have a chance to dash out before we stakeholders  
19 of the NOSB and the program have a chance to close  
20 the barn door. Thank you.

21 CHAIR FAVRE: Thank you, Julie. Any  
22 questions for Julie? Zea?

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1                   MEMBER SONNABEND: Thank you, Julie.  
2                   Could you give an example of what you mean by a  
3                   process we would put on the National List?

4                   MS. WEISMAN: Well, what I mean  
5                   generally is that instead of having the National --  
6                   we have been focused on excluded methods, and the  
7                   current endeavor right now is to refine the  
8                   definition of excluded methods to take into account  
9                   all of the changes that have occurred since 1995.

10                   And I'm suggesting that the rate at  
11                   which these changes will come at us are too fast  
12                   for this process, and that if instead it were  
13                   possible -- I don't know if it is, but in my  
14                   imagination it is possible -- to have a list that  
15                   is a positive list of allowed methods, and that new  
16                   technologies cannot be used until after they have  
17                   been reviewed in the same way that we've reviewed  
18                   new substances and then added to the list of allowed  
19                   methods. That's my fantasy.

20                   MEMBER SONNABEND: And this can be done  
21                   without a rule change when the rule already says  
22                   excluded? And I still would want to hear an

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1 example of what you mean.

2 MS. WEISMAN: Well, in other words,  
3 there are a number of techniques which everyone  
4 does agree are already -- are excluded. But there  
5 are a lot of things that are being debated and  
6 parsed out right now in this public comment  
7 process. Some people believe that CRISPR is part  
8 of the villains and other people have pointed out  
9 that it's something that occurs naturally in plants  
10 already, in bacteria, I guess.

11 So I think that the time that it's going  
12 to take -- and this process should take time.  
13 That's what's important about it. But in the  
14 meantime, all these other technologies are being  
15 loosed upon the environment before we have a chance  
16 to hammer them down. And that is only going to  
17 accelerate.

18 I feel like I'm not answering your  
19 question yet, Zea. I'll give it more thought.

20 CHAIR FAVRE: Any other questions?

21 (No response.)

22 CHAIR FAVRE: Thank you very much.

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1           Okay. Next up is Cameron Harsh, and  
2 we've got Abby Youngblood on deck.

3           MR. HARSH: Good afternoon. My name  
4 is Cameron Harsh. I am the senior manager of  
5 organic and animal policy at Center for Food  
6 Safety. I want to thank the Board for your  
7 commitment to organic.

8           CFS is disheartened by the late posting  
9 of the opportunity to comment which cut the time  
10 available for the Board to review written comments  
11 by half compared to previous meetings.

12           On policy and procedures, we appreciate  
13 the transparent documentation of all proposed  
14 revisions. The manual functions as bylaws for  
15 NOSB and is crucial to a strong organic process.  
16 Control of the language must remain with NOSB, and  
17 revisions must not reduce its functioning as an  
18 autonomous advisory body to NOP. Certain proposed  
19 revisions reduce the authority and independence of  
20 NOSB, including initiating agenda items and  
21 establishing its own procedures. Suggested  
22 revisions regarding minority opinion procedures

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1 reduce transparency and the ability of the full  
2 board to consider diverse perspectives. More work  
3 is also needed to bring the manual into full  
4 alignment with FACA.

5 On sunset review, we understand that  
6 the sunset review schedule unfairly burdens the  
7 Board, NOP and the public in certain years and  
8 affirm the subcommittee's recognition the review  
9 dates must only be moved ahead in compliance with  
10 OFPA. CFS supports grouping materials by their  
11 similar function or use in organics, such as option  
12 B. This facilitates considerations of  
13 essentiality, as materials that address similar  
14 needs are reviewed on the same cycle, and supports  
15 the intent that the National List is meant to  
16 decrease over time.

17 Squid and squid byproducts. Due to the  
18 environmental impacts of squid harvesting, such as  
19 destruction of benthic Habitat and bycatch of  
20 endangered species, any allowance of squid-based  
21 fertilizers in organic must not lead to increased  
22 harvesting of wild squid. While the recycling of

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1 waste from the squid food industry is positive,  
2 manufacturers of fertilizers should not be allowed  
3 to source whole squid. Research also indicates  
4 high heavy metal contamination of squid  
5 byproducts, particularly liver and muscle, as well  
6 has high leaching potential of squid-based  
7 fertilizers. These issues should be addressed  
8 before moving forward with the petition.

9 Copper sulfate. Before voting on  
10 copper sulfate more research is needed regarding  
11 whether non-target aquatic species that are killed  
12 by the toxic effects of copper may provide suitable  
13 algae and tadpole shrimp control if their  
14 populations were instead allowed to flourish.

15 Carrageenan. CFS has consistently  
16 urged NOSB to remove carrageenan due to its  
17 incompatibility with organic. Several  
18 researchers from a number of institutions have  
19 demonstrated potential harm from the breakdown of  
20 carrageenan during digestion. Further, the  
21 subcommittee's comparison of harm from consuming  
22 carrageenan to a food sensitivity is an inaccurate

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1 analogy. It is a plant extract used as a food  
2 additive, not a food or an actual component of a  
3 food in and of itself. Additionally, research  
4 suggests that all people could be affected by  
5 degraded carrageenan to varying degrees. Lastly,  
6 as several companies have already removed it, it  
7 is clearly not essential and should not remain on  
8 the National List.

9 Vitamins and minerals. CFS continue  
10 to advocate for removing the categorical listing  
11 of vitamins and minerals and requiring that  
12 individual materials intended for fortification of  
13 foods be individually petitioned for inclusion as  
14 required by OFPA. Many materials already listed  
15 individually are sources of the desired vitamins  
16 and minerals, and would not need to be  
17 re-petitioned. CFS supports the proposal put  
18 forward by the National Organic Coalition in its  
19 written comments.

20 Finally, on hypochlorous acid, the  
21 Board must review the potential addition of  
22 hypochlorous acid within the context of similar

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1 materials already listed, as well as the physical  
2 and non-chemical sanitation practices that should  
3 be encouraged. Thank you.

4 CHAIR FAVRE: Good job. Any questions  
5 for Cameron? Zea and then Tom.

6 MEMBER SONNABEND: Thank you. You  
7 didn't comment on the excluded methods  
8 terminology. Is someone else from Center for Food  
9 Safety planning to talk about that or --

10 MR. HARSH: Yes, I'll be leaving that  
11 to Jaydee Hanson, who will comment tomorrow.

12 MEMBER SONNABEND: Tomorrow there will  
13 be someone to comment?

14 MR. HARSH: Yes, tomorrow morning.

15 MEMBER SONNABEND: Okay. I'll wait  
16 for that.

17 CHAIR FAVRE: Tom?

18 VICE CHAIR CHAPMAN: You mentioned  
19 FACAs in your comments there very briefly. Can you  
20 go over that again? What was your comment?

21 MR. HARSH: Yes. So in our written  
22 comments it elaborates in more detail, but one of

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1 the issues is that the proposed revisions conflates  
2 two positions, one being the committee member of  
3 the CMO and the DFO are the acronyms. I can find  
4 exactly what those stand for.

5 PARTICIPANT: Committee management  
6 officer.

7 MR. HARSH: Yes, committee management  
8 officer. Thank you so much. So many acronyms.

9 PARTICIPANT: And designated federal  
10 officer.

11 MR. HARSH: And the designated federal  
12 officer. Their roles have been conflated in the  
13 proposed revisions, and also there is still some  
14 work for record keeping requirements under FACA,  
15 as two examples. But again, our written comments  
16 go into further detail.

17 VICE CHAIR CHAPMAN: What were the  
18 record keeping? Can you speak to those?

19 MR. HARSH: Yes. It's in relation to  
20 the minutes of advisory committee meetings and  
21 submitting record keeping under FACA instead of  
22 FOIA, which has been addressed to some degree in

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1 the new revisions, but not fully.

2 VICE CHAIR CHAPMAN: What piece of the  
3 FACA disclosure under our new revisions is not  
4 fully met?

5 MR. HARSH: That would be a question  
6 that I can answer later based on our attorneys that  
7 have done the assessment of the revisions.

8 VICE CHAIR CHAPMAN: Okay. Thank you.  
9 I'd be interested in that.

10 CHAIR FAVRE: Dan?

11 MEMBER SEITZ: I didn't quite fully  
12 catch your comments on squid and squid byproducts.  
13 I understand that you wouldn't want people to catch  
14 squid to use that as fertilizer, but are there any  
15 problems with the byproducts apart from catching  
16 whole squid from your understanding?

17 MR. HARSH: There is research, and we  
18 have cited a number of studies in our written  
19 comments to suggest that there are some issues with  
20 cadmium and copper levels in certain squid  
21 byproducts, particularly the liver and the muscle.  
22 So that would be one issue, heavy metal

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1 contamination, that we'd want looked into further.  
2 Another issue is the high nitrogen leaching  
3 potential from fertilizers that are using squid.

4 CHAIR FAVRE: Thank you.

5 Next up is Abby Youngblood, followed by  
6 Michael Sly on deck.

7 MS. YOUNGBLOOD: Good afternoon. My  
8 name is Abby Youngblood, and I'm the executive  
9 director at the National Organic Coalition. And  
10 I want to say welcome to new Board members, and  
11 thank you to all of you for your work.

12 I want to talk first about the role of  
13 the NOSB, and then I want to touch quickly on a few  
14 of the materials that we commented on.

15 The NOSB plays a critical role by  
16 serving as a link between the organic community and  
17 the USDA by representing and balancing the  
18 interests of diverse stakeholders and by  
19 maintaining a level of autonomy from the USDA that  
20 is absolutely essential if the organic label is to  
21 have the trust of farmers and citizens alike.

22 NOC believes the NOSB must have the

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1 authority to set its own direction and agenda and  
2 we urge the NOSB to maintain control over the Policy  
3 and Procedures Manual, or PPM. Changes to the PPM  
4 must be transparent and submitted with full  
5 justification, and we urge you to not allow the PPM  
6 to be weakened in such a way that it infringes on  
7 the NOSB's authority. We support integrating  
8 minority opinions held by subcommittee members  
9 into NOSB recommendations for consideration by the  
10 full Board and public.

11 Expanding organic production by  
12 destroying endangered ecosystems is unacceptable,  
13 and we would like to see the NOSB address this issue  
14 on its work plan and work with leaders in the  
15 organic community such as Wild Farm Alliance to  
16 provide a path forward. And we believe that  
17 addressing this issue is fully within the Board's  
18 statutory authority, and in fact believe that it's  
19 the Board's responsibility to go beyond reviewing  
20 National List materials as you've done in so many  
21 other cases to examine and propose solutions for  
22 critical issues that could harm the integrity of

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1 the organic label.

2 We ask that the Board uphold all of the  
3 OFPA criteria in your review of petition and sunset  
4 materials and we agree with the Handling and Crops  
5 Subcommittees that oat beta-glucan and ash from  
6 manure burning do not meet OFPA criteria. We urge  
7 the Board to reject these materials.

8 Carrageenan does not meet OFPA  
9 criteria. It's not essential for production of  
10 organic food and may have negative human health  
11 impacts as my colleagues from Consumers Union and  
12 CFS describe in detail, and it should be removed  
13 from the National List.

14 Nutrient vitamins and minerals should  
15 be removed from the National List and reviewed  
16 individually to OFPA criteria, and we support the  
17 Handling Subcommittee's efforts to fix the listing  
18 and annotation and provide a specific proposal in  
19 our comments about how option 1 could be modified  
20 to accomplish this. According to our analysis,  
21 only a handful of nutrients would require petition  
22 and review.

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1 Thank you, NOSB members, for your hard  
2 work and for this opportunity to testify.

3 CHAIR FAVRE: Thank you. Jean?

4 MEMBER RICHARDSON: Abby, can you help  
5 me with the minority opinion piece? You probably  
6 wrote this in your materials and I'm just not  
7 remembering it, but did you have some specific  
8 language that you would be recommending to modify  
9 or edit what we had for the minority opinion?  
10 Because our goal in doing that was that indeed  
11 minority opinions would be absolutely incorporated  
12 into the recommendation. What we're trying to  
13 avoid is having the recommendation written, ready  
14 to be voted, or about to be voted, or voted --

15 MS. YOUNGBLOOD: Yes.

16 MEMBER RICHARDSON: -- and then a bunch  
17 of people say, hey, we have a different approach.  
18 We're trying to avoid --

19 MS. YOUNGBLOOD: Yes.

20 MEMBER RICHARDSON: -- that.

21 MS. YOUNGBLOOD: And we're  
22 supporting --

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1                   MEMBER RICHARDSON:   What we want is  
2                   consensus.

3                   MS. YOUNGBLOOD:   We're supporting  
4                   that.   So in our comment we're saying that we  
5                   support the language that would incorporate that  
6                   minority opinion.

7                   MEMBER RICHARDSON:   Okay.

8                   MS. YOUNGBLOOD:   So thank you for --

9                   MEMBER RICHARDSON:   Okay.   Thank you.

10                  MS. YOUNGBLOOD:       -- making that  
11                  change.

12                  CHAIR FAVRE:   Thank you very much.

13                  Okay.   Next up is Michael Sly, followed  
14                  by Linley Dixon on deck.

15                  MR. SLY:   Good afternoon.   I'm Michael  
16                  Sly with the Rural Advancement Foundation  
17                  International.

18                  I rise mostly to speak about seeds and  
19                  new genetic techniques, but I would also say that  
20                  I support NOC's particular concerns around  
21                  changing the procedures manual, particularly here  
22                  at the end of administration, when we don't know

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1 really who will be here in the future. So I think  
2 it's important that we kind of keep a level hand  
3 as we go into this new administration. So I urge  
4 that we don't tilt this delicate balance that we've  
5 created and was observed in OFPA.

6 But I'm here to talk about seeds.  
7 Particularly, we found on the original NOSB that  
8 the criteria of compatibility with sustainable  
9 agriculture to be a key touchstone for us when we  
10 came across genetic engineering back in the day.  
11 I suggested that is a very good criteria for you  
12 to look at because it is already defined by USDA.  
13 It includes a much bigger framework and allows us  
14 to look at the implications of new technology on  
15 the very structure of organic agriculture.

16 I particularly want us to make sure that  
17 we don't get lost in the weeds on this one, because  
18 this is really one that requires our clearest  
19 vision, and it is an opportunity for us to  
20 communicate to the larger agricultural sector  
21 about what is compatible with a system of  
22 sustainable agriculture. Why would we want to

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1 exclude something and for what reason? It's a  
2 really good teachable moment, that we should seize  
3 this moment.

4 I'm going to provide many more criteria  
5 in my written comments, but I want to focus on just  
6 a couple of realities that are important when we  
7 think about these new techniques. I think it's  
8 important to understand that the overall seed  
9 industry is already highly concentrated and  
10 consolidated and it is driving genetic uniformity  
11 and a loss of regionally adapted varieties.

12 So we need to be very careful in  
13 thinking about any new technique that will include  
14 a utility patent, which these do already. And we  
15 would expect that these new techniques would not  
16 only have a utility patent, they would also have  
17 restrictive use agreements. And this will in many  
18 ways prevent plant breeders in the public sector  
19 and farmers from saving these seeds, from improving  
20 these seeds, and will further push organic  
21 agriculture and seed production even further  
22 behind.

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1           So I caution us to not go down that road  
2           at this point. We think that we can't see utility  
3           patents being compatible with a system of  
4           sustainable agriculture.

5           We do also call on the NOSB to urge USDA  
6           to put more priority on funding public cultivar  
7           development.

8           CHAIR FAVRE: Thank you.

9           MR. SLY: Thank you.

10          CHAIR FAVRE: Questions for Michael?  
11          Zea?

12          MEMBER SONNABEND? Thank you.  
13          Michael, could you explain how what you just said  
14          specifically relates to our proposal on the table?

15          MR. SLY: Yes, I mean, I think your  
16          proposal is really good work, Zea. And we did meet  
17          with the Organic Seed Alliance and got a bunch of  
18          the plant breeders on a phone call, and we looked  
19          at the definitions. And we think that it needs  
20          some more clarity to be clear about what is excluded  
21          and what is not included.

22          And we also think that actually it would

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1 be a better route if we would look at defining what  
2 is organic plant breeding, that that may be a better  
3 route for us to go in terms of including this  
4 discussion of what is excluded by saying what we  
5 think should be included.

6 So I will provide this in written  
7 comment, Zea. I apologize. I couldn't -- as a  
8 Southerner, I can't say much in three minutes.

9 MEMBER SONNABEND: Well, of course you  
10 realize that the under-text of what you just said  
11 is like let's wait 10 more years while we develop  
12 organic --

13 (Simultaneous speaking.)

14 MR. SLY: No, I'm not saying wait 10  
15 more years. And I mean, the international organic  
16 community is already moving rapidly ahead on this  
17 and we're participating in that.

18 MEMBER SONNABEND: And how long --

19 (Simultaneous speaking.)

20 MR. McEVOY: And I understand your term  
21 is coming up, and we would love to see clarity on  
22 this before you leave, Zea, but --

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1                   MEMBER SONNABEND: But how long has the  
2 international community worked on this so far?

3                   MR. SLY: Couple of years. Couple of  
4 years.

5                   MEMBER SONNABEND: Or 10?

6                   MR. SLY: Yes.

7                   (Laughter.)

8                   MR. SLY: But I would urge that I think  
9 we should take advantage of the number of organic  
10 plant breeders that are out there and NGOs and  
11 farmers that are working very hard on these  
12 techniques and bring them into this closely so that  
13 we can get this right the first time. It's quite  
14 critical that we not be too vague, because if we're  
15 too vague, it will come back to haunt us. So that's  
16 really our main concern is that it needs to be  
17 tightened up. And we can provide that additional  
18 information.

19                   CHAIR FAVRE: Dan?

20                   MR. SLY: Thank you.

21                   MEMBER SEITZ: I have a question.

22                   CHAIR FAVRE: Hold on just a minute.

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1 We have one more question for you.

2 MR. SLY: Oh.

3 MEMBER SEITZ: Just can you more  
4 explicitly make a connection between the work of  
5 the NOSB and how steps on our part will work to keep  
6 a further consolidation of the seed industry and  
7 a further loss of varieties?

8 MR. SLY: Yes.

9 MEMBER SEITZ: How do those things  
10 connect?

11 MR. SLY: Yes, I mean, the issue that  
12 we're concerned about is that we have had this rapid  
13 decline in public cultivar development and funding  
14 at the federal level, particularly at USDA. And  
15 many of us have been working very hard to try to  
16 change that trend line. And you'll have Dr. Tracy  
17 here tomorrow who probably can corroborate that  
18 better than I can, but our concern is that if in  
19 the larger context we're already behind and have  
20 limited resources to fund public cultivar  
21 development, which is where organic farmers  
22 currently are turning to to find compatibility with

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1 organic, because the organic seed industry is still  
2 very much in its infancy. We don't have enough  
3 organic seeds to meet the locally-adapted needs of  
4 farmers all over the world yet. We're trying to  
5 build that infrastructure.

6 But if we allow utility patents to creep  
7 into organic plant breeding and to be allowed  
8 through these new techniques, we will further  
9 constrain the ability to innovate more rapidly.  
10 That's my point there, is that that's the key that  
11 we're seeing as a direction that is not useful for  
12 a system of sustainable agriculture. There are  
13 many other ways to reward breeders without using  
14 a utility patent. Thank you.

15 CHAIR FAVRE: Thank you.

16 Next up is Linley Dixon, and Jake Lewin  
17 is on deck.

18 DR. DIXON: My name is Linley Dixon and  
19 I'm a scientist for the Cornucopia Institute. I  
20 have submitted extensive written comments on the  
21 carrageenan controversy.

22 In my former live before I became a

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1 farmer I was a Ph.D. molecular biologist for the  
2 USDA Agriculture Research Service. Even so, I  
3 admit I initially fell for the carrageenan  
4 industry's story. When I say the industry, I mean  
5 this group of companies and scientists from United  
6 for Food Science that all profit from carrageenan,  
7 the group that produced the pig feeding study that  
8 JECFA largely based their decision regarding  
9 carrageenan safety. Nearly all the studies  
10 showing its safety can be traced back to this group.  
11 It's also this group that produced the Facebook  
12 campaign that submitted to you over 1,100 identical  
13 comments on carrageenan.

14 FMC, an \$8 billion conglomerate, is  
15 coordinating the effort to discredit public  
16 research. All we're doing is letting consumers  
17 know that this quality public research exists.

18 The industry that claims that sounding  
19 the alarm on carrageenan are simply confused  
20 between poligeenan and carrageenan. We are not  
21 confused. They're both extracted from red  
22 seaweed, but poligeenan is produced by subjecting

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1 carrageenan to acid and high temperatures and has  
2 a much lower average molecular weight, between 10  
3 to 20 kilodaltons.

4 But what the industry doesn't readily  
5 admit is that the higher average molecular weight  
6 of food grade carrageenan doesn't preclude the  
7 presence of smaller amounts of harmful low  
8 molecular weight forms. The term "average" would  
9 obscure that presence. This presence is confirmed  
10 by studies of both publicly and industry-funded  
11 studies. There is a scientific consensus on the  
12 presence of low molecular weight forms in food  
13 grade carrageenan and many labs around the world  
14 are investigating its effects.

15 The carrageenan industry attempts to  
16 pinpoint one lab and claim that they don't have good  
17 laboratory practices, or GLP. It didn't take much  
18 investigation to find out that it's not just  
19 Tobacman's lab at the University of Chicago that  
20 has published on the harmful effects of food grade  
21 carrageenan, but also the University of Calgary,  
22 Alberta, the Metabolic Phenotyping Center at

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1 Vanderbilt, the University of Tubingen in Germany  
2 and Pusan National University School of Medicine  
3 in South Korea.

4 The peer review process and the  
5 high-calibered journals that these groups have  
6 published in means more than the industry's  
7 self-defined GLP for carrageenan and publications  
8 in *Critical Reviews in Toxicology*, an  
9 industry-friendly journal that the Center for  
10 Public Integrity has called brokers of junk  
11 science.

12 In addition, the industry has tried to  
13 discount studies in human colonic epithelial cell  
14 line MCM460. This cell line is routinely used in  
15 many cell culture studies because it enables  
16 survival and culture. Any scientist can quickly  
17 see this argument doesn't hold when there are  
18 proper controls, repetitions and data that are  
19 analyzed by appropriate statistics. Plus there  
20 are also studies showing harm in normal human  
21 colonic epithelial cells.

22 Over the last three years, in

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1 collaboration with Dr. Tobacman and her team at the  
2 University of Illinois, Cornucopia has gathered  
3 information from individuals who have eliminated  
4 carrageenan from their diets and noticed a  
5 resulting health change. To date, there are 1,300  
6 individuals that have found their way to our web  
7 site and every one of them has medical details  
8 regarding better health.

9 And the only thing I would like to end  
10 with is that if there were a open docket between  
11 now and the vote, you would get to hear all those  
12 stories and read them for yourselves.

13 CHAIR FAVRE: Thank you. Anybody have  
14 questions for Linley?

15 (No response.)

16 CHAIR FAVRE: Thank you very much.

17 Next up is Jake Lewin, with Christopher  
18 Peot on deck.

19 MR. LEWIN: All right. Hi, everybody.  
20 My name is Jake Lewin. I'm the president of CCOF  
21 Certification Services. I've worked in organic  
22 farming inspection and certification for 18 years.

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1           CCOF Certification Services is the  
2 non-profit certification arm of the member-based  
3 non-profit CCOF. After starting it on a kitchen  
4 table in Santa Cruz, California and playing a major  
5 role in standards development and the NOP, we  
6 certify about 3,200 operations in the U.S., Mexico  
7 and Canada, including about 2,000 farms and about  
8 1,000 processors. We perform about 4,700  
9 inspections annually.

10           Our organizational mission is to make  
11 organic the norm. We do this through  
12 certification, advocacy and promotion. We want to  
13 see organic grow and the standards evolve and  
14 address new and modern challenges. Each year we  
15 provide funding to future organic farmers, provide  
16 organic farmer hardship assistance and support the  
17 certification of educational institutions and  
18 incubators by providing certification free of  
19 charge.

20           One area that we pride ourselves in is  
21 information management and the use of technology.  
22 These efforts allow us to provide you highly

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1 accurate information about the content of organic  
2 system plans. However, these are people to us and  
3 we ask you to see them that way. I ask you to look  
4 at our written comments and whenever you see us  
5 reporting, even reporting on producers that  
6 include a material in the OSP, we ask you to see  
7 people. They're not just numbers.

8 We struggle to get operations to  
9 understand and engage in this process. We strive  
10 to not approach your deliberations as an all or  
11 nothing or to over-dramatize the situation. In  
12 many instances we're simply left bringing you the  
13 facts that there are real individuals in our system  
14 we know are affected by your decisions. We have  
15 tried to be helpful and constructive on issues like  
16 residue testing, GMO testing, inspector  
17 evaluations and countless other improvements to  
18 the program as a whole. We're not afraid of change  
19 and we want organic to evolve and we to evolve with  
20 it.

21 We firmly believe in organic being  
22 non-GMO and have pioneered an organic is non-GMO

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1 and more seal. I am personally really troubled by  
2 GMOs and how to continually improve their exclusion  
3 from organic. We support the work on seed purity,  
4 but are challenged regarding how to apply it  
5 effectively. We are pursuing GMO testing, and if  
6 we find contamination, we need the help and a good  
7 system for pursuing problems down the supply chain.  
8 The end point is going to be the seed, but that's  
9 going to be hard.

10 We're ready to do the work. In fact,  
11 I think we already have some of that authority, but  
12 I can't figure out how to do it fairly. This is  
13 something that needs a lot of work, and we really  
14 encourage you to pursue it. I ask you to be fair,  
15 open-minded and generous in your deliberations,  
16 then vote honestly. Vote your conscience and be  
17 fair and we will live, work with and respect the  
18 outcomes.

19 I want to really thank you for your  
20 service to the organic community, and I want to  
21 congratulate the NOP on the proposed rulemaking on  
22 organic livestock and poultry practices. I think

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1 that's a great thing.

2 Thank you, Jake. Any questions for  
3 Jake?

4 (No response.)

5 CHAIR FAVRE: Thank you very much.  
6 Okay. Next up is Christopher Peot, followed by  
7 Liana Hoodes.

8 MR. PEOT: Hi. Thank you. I really  
9 appreciate the opportunity here. My name is Chris  
10 Peot. I'm a process engineer, and I'm the director  
11 of resource recovery for D.C. Water, the local  
12 water utility. We treat drinking water, serve all  
13 of the residents of D.C., but we also treat waste  
14 water, and I, among other things, manage the  
15 biosolids reuse program.

16 Today I'd like to talk a little bit  
17 about the existing organic standard, and there's  
18 a provision in there that prohibits the use of  
19 biosolids because of the potential of  
20 contamination in organic farms. And that  
21 potential is there, but product quality varies  
22 greatly amongst our industry.

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1           What I'm here to ask is for  
2           consideration of revisiting the prohibition of  
3           biosolids, not to get rid of it altogether, but to  
4           consider a science-based standard, because right  
5           now it's not based on any science. It's just the  
6           potential of some contaminants there.

7           We strongly, strongly support the  
8           mission of USDA and the organics rule. We feel  
9           like we -- what we do gets towards some of those  
10          same goals. We don't even consider ourselves or  
11          refer to ourselves as a waste water treatment plant  
12          anymore, but rather as a resource recovery facility  
13          recovering water, of course the world's most  
14          precious commodity, but also nutrients, carbon and  
15          energy.

16          And we understand that the nutrient  
17          cycle needs to be closed. In many cases we  
18          harvest -- as urban dwellers, we harvest organic  
19          matter and nutrients from rural areas, bring them  
20          into cities, process them through our bodies.  
21          They end up at the treatment plant, and a lot of  
22          times those organics get locked in the landfill,

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1 which isn't good. It's not sustainable. And we  
2 would like to see as much of that get onto the land  
3 as possible.

4 The benefits of biosolids use are  
5 slow-released nitrogen, carbon sequestration,  
6 avoidance of inorganic fertilizer and the  
7 associated energy required to produce it. There  
8 is bound phosphorus, which means that it's slowly  
9 released in biosolids. We have research that  
10 shows that there's crop yield increases, a crop  
11 drought tolerance -- which is incredibly important  
12 in these times of climate change -- and it  
13 dramatically reduces our carbon footprint as a  
14 city. So many of the things that I think USDA is  
15 very interested in.

16 The backbone of our program has always  
17 been agriculture, and our farmers have always  
18 anecdotally told us that they can get through  
19 drought conditions better when they use biosolids  
20 as opposed to inorganic fertilizer, and they get  
21 higher crop yields. We now have research that  
22 definitively shows why that is happening. I'm

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1 going to submit some papers here from Virginia Tech  
2 for the record, please.

3 Thank you. I think my time is up. I  
4 appreciate it.

5 CHAIR FAVRE: Thank you.

6 MR. PEOT: Yes.

7 CHAIR FAVRE: Any questions for Chris?

8 (No response.)

9 CHAIR FAVRE: I actually have one  
10 before you go.

11 MR. PEOT: Sure.

12 CHAIR FAVRE: I have some experience in  
13 this area, and I'm curious as to how you would  
14 ensure that the biosolids would not contain, for  
15 instance, like pharmaceutical residues and things  
16 like that. I mean, are those removed during the  
17 digestion process, or what happens?

18 MR. PEOT: Yes, some are, but many  
19 aren't. They do show up. We're testing for many  
20 compounds beyond what is required by EPA because  
21 we want to make sure that we're not doing any harm  
22 to the environment either.

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1                   They do show up. And there's been some  
2 risk studies and some studies showing that. King  
3 County, Washington, where Seattle is, just did a  
4 large study, and they tested for a whole suite of  
5 compounds and pharmaceuticals, and they had four  
6 risk pathways -- a child that plays in a yard in  
7 a garden and eats a certain amount every day, a  
8 gardener, somebody who works in the forest, and  
9 somebody who works in agriculture.

10                   And they chose the most -- the pathway  
11 that was -- that gave the most -- the highest risk.  
12 And in every case there were -- they went through  
13 this whole suite of compounds. And in many cases  
14 it takes for daily exposure something like 90,000  
15 years to get a single therapeutic dose of say  
16 estrogen. So I'm not saying that they're not  
17 there. It's just the risk is extremely low. And  
18 some biosolids are better than others. So I  
19 wouldn't say take the rule out or change the rule  
20 for all, but have some sort of a science-based  
21 solution.

22                   CHAIR FAVRE: Thank you.

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1 MR. PEOT: Yes, thank you.

2 CHAIR FAVRE: Okay. Next up is Liana  
3 Hoodes, and followed by Emily Lyons on deck.

4 MS. HOODES: Good afternoon, NOSB. My  
5 name is Liana Hoodes, and today I'm representing  
6 the Northeast Organic Farming Association of New  
7 York. I want to thank you all for all of the work  
8 that you do. It's incredible over the vast array  
9 of topics.

10 Founded in 1983, NOFA New York is the  
11 premier statewide organization growing organic and  
12 sustainable food in agriculture in New York State.  
13 We're an education organization for farmers and  
14 consumers. We're a USDA-accredited certifier and  
15 we also work to advocate for policies, both  
16 statewide and federal to support sustainable and  
17 organic agriculture.

18 NOFA New York is currently working in  
19 collaboration with several groups -- including  
20 Food & Water Watch, Center for Food Safety and  
21 Consumers Union -- to stop the first worldwide  
22 open-air trials of the genetically-engineered

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1 Diamondback moth, or GDM. These trials have been  
2 permitted by APHIS to be released in an experiment  
3 station in Upstate New York, although we have  
4 recently heard that they may have been -- not  
5 followed the full law and maybe pulled back. But  
6 they're scheduled to start this year.

7 I'm going to limit my comments to two  
8 areas on your excluded method definition. I think  
9 you have covered it, but the definition must  
10 include techniques applicable to insects and  
11 animals. And I also ask that the entire organic  
12 community -- USDA, NOP and this Board -- must begin  
13 to address the issue of what contamination means  
14 and how that line gets drawn, because it's getting  
15 different out there.

16 Diamondback moths are a serious pest to  
17 Brassica family crops around the world, mostly in  
18 southern climes, not particularly in New York  
19 State. The GDM are created using several GE  
20 techniques, including transposons and some RNA  
21 techniques. I've attached in the email version  
22 work by GeneWatch UK that has a chart of the genetic

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1 techniques. And you should also ask questions  
2 about that of Dr. Hansen, who's also an  
3 entomologist as well as an expert on GE. In  
4 general, it will be crucial that your definition  
5 include these range of techniques.

6 The role of the GDM, genetically-  
7 engineered Diamondback moth, is to reduce or wipe  
8 out populations of the Diamondback moths through  
9 a female lethality trait, not sterility. This  
10 trait is produced in the lab and turned off by a  
11 tetracycline switch. Multiple thousands of male  
12 GDM are repeatedly released into the field and mate  
13 with wild females who produce eggs which are laid  
14 on the Brassica. Larvae develop on the Brassica  
15 and the GDM female larvae die. The GDM male pupate  
16 to continue the cycle, surviving GDM males along  
17 with repeated additional releases of the GDM males,  
18 suppress the numbers of wild Diamondback moths  
19 through continual mating.

20 Genetically-engineered male moths are  
21 released in the field 10 to 50 times the numbers  
22 found in nature. There have been no environmental

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1 or health impact assessments about this, and  
2 imagine GDM genetically-engineered insects on your  
3 broccoli, cabbage and cauliflower. And remember  
4 that that would not affect the organic  
5 certification because the farmer would not have  
6 used it, but they would still be on the plant.

7 CHAIR FAVRE: Thank you. Any  
8 questions for Liana? Zea?

9 MEMBER SONNABEND: Thank you, Liana.  
10 What is it we can do that would help this situation?

11 MS. HOODES: Two things: One is do  
12 make sure with your Technical Committee, which  
13 would not be me, that you have covered all of the  
14 types of technologies that are currently being used  
15 to develop genetically engineered insects.

16 And the other is to realize that the  
17 issue of what's considered contamination will come  
18 up. As these pest types of genetically engineered  
19 insects that are supposed to wipe out whole species  
20 of pests come up, consumers will then be hearing  
21 about and eating genetically engineered insects.

22 And I don't even know how to approach

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1 that in terms of what we do. I don't -- farmers  
2 should not be made -- penalized by having them fly  
3 onto their crops, but so I'm not proposing that.  
4 I'm saying we have to think about what those next  
5 steps are beyond where we are at this point.  
6 Thanks.

7 CHAIR FAVRE: Thank you.

8 Next up is Emily Lyons, and we've got  
9 Sam Welsch on deck.

10 MS. LYONS: Good afternoon. My name  
11 is Emily Lyons and I am here on behalf of the  
12 International Dairy Foods Association. IDFA  
13 represents the dairy manufacturing and marketing  
14 industry and their suppliers, including several  
15 dairy product companies.

16 I appreciate the opportunity to comment  
17 this afternoon on the National Organic Standards  
18 Board's sunset review for several food handling  
19 substances.

20 In general, IDFA supports the Board's  
21 renewal of the substances up for review on the  
22 National List. Specifically, IDFA supports the

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1 renewal of agar-agar, carrageenan, glucono  
2 lactone, cellulose and silicon dioxide, as all of  
3 these substances are currently used in various  
4 organic dairy products, and there are no or limited  
5 substitutes for these additives. Today my  
6 comments will specifically focus on two  
7 substances: carrageenan and cellulose.

8 Concerning carrageenan, it is used in  
9 organic dairy products because it provides a  
10 precise adjustment of texture and mouth feel in a  
11 broad range of milk and dairy products.  
12 Carrageenan interacts well with milk proteins as  
13 it promotes the smooth and thorough dispersion of  
14 even the most delicate ingredients in milk and  
15 dairy products, and it's especially useful in the  
16 formulation of low-fat versions of dairy products  
17 that can play a critical role in improving the  
18 health of the American public. As such,  
19 carrageenan is still used in some organic products  
20 due to its unique characteristics.

21 The Food and Drug Administration, the  
22 U.S. food safety authority, has approved

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1 carrageenan as a safe food additive. The FDA has  
2 reviewed the safety of carrageenan on several  
3 occasions over the past decades, including a recent  
4 review in 2012 in response to a citizen petition.  
5 After appropriate consideration, the FDA concluded  
6 that the scientific information provided in the  
7 petition did not support the request to revoke the  
8 permitted use of carrageenan as a food additive.  
9 IDFA has worked closely with the FDA on numerous  
10 food safety and food defense issues, and we have  
11 the utmost respect their science-based  
12 conclusions.

13 The Board should continue to recognize  
14 as it has in the past the FDA's authority and defer  
15 to its opinion on the safety of food additives, as  
16 the Board is also required to consult with the  
17 Secretary of Health and Human Services when  
18 reviewing items for listing on the National List.

19 Further, other health organizations  
20 such as the Joint Food and Agriculture Organization  
21 and the World Health Organization's Expert  
22 Committee on Food Additives and other world

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1 regulatory agencies have recognized the safety of  
2 carrageenan.

3 Now turning to cellulose, IDFA supports  
4 the continued use of cellulose as a safe anticaking  
5 agent for organic products. And this use is also  
6 permitted by the FDA for use in certain foods such  
7 as an optional ingredient for grated cheese.  
8 Although there's no specific limit for the amount  
9 of anticaking agents listed in the grated cheese  
10 standard, it's permitted to be used up to the amount  
11 needed to achieve the technical and functional  
12 anticaking effect.

13 The limited use that is currently  
14 allowed by the Board should be continued. And I  
15 appreciate the opportunity to provide these  
16 comments to the Board. Thank you.

17 CHAIR FAVRE: Thank you.

18 Tom, you had a question?

19 VICE CHAIR CHAPMAN: Yes, you made a  
20 comment about the NOSB must and should, or  
21 something along those lines, accept the FDA's  
22 recommendation on food substances. The current

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1 National List for handlers is something around 79  
2 materials, give or take a few, and everything added  
3 to food is over 3,000. So are you saying that we  
4 should have a list of every -- all 3,000 items?

5 MS. LYONS: No, what I'm saying is that  
6 on the substances that the National Organic Program  
7 does include on the National List, when it's  
8 reviewing things like food additives, OFPA itself  
9 states that the Secretary of Agriculture through  
10 the National Organic Standards Board must consult  
11 with the Secretary of Health and Human Services  
12 when considering items to be listed. So it could  
13 be -- that consultation should just be limited to  
14 the items that the Board decides to review.

15 CHAIR FAVRE: Harold?

16 MEMBER AUSTIN: In regards with your  
17 support of cellulose, have there been any other  
18 alternatives that have looked at to -- that would  
19 work in the same capacity and have they been  
20 successful or not?

21 MS. LYONS: We are not aware of any  
22 other anticaking agents that organic companies

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1 have necessarily been using in place of cellulose.  
2 I'm sure that they have looked into it in order to  
3 not use cellulose; however, at this time an  
4 appropriate replacement has not been identified.

5 CHAIR FAVRE: Tom?

6 VICE CHAIR CHAPMAN: You mentioned  
7 GDLs used in dairy. Do you know the application  
8 in dairy?

9 MS. LYONS: I believe it's used in some  
10 creams.

11 VICE CHAIR CHAPMAN: Okay.

12 MS. LYONS: But fluid products,  
13 generally.

14 CHAIR FAVRE: Okay. Thank you very  
15 much.

16 MS. LYONS: Thank you.

17 CHAIR FAVRE: Next up is Sam Welsch,  
18 followed by Holli Cederholm.

19 MR. WELSCH: Hello. Thank you all of  
20 you for your service.

21 I want to talk today about the organic  
22 label. It has value because it represents a

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1 meaningful distinction from non-organic products;  
2 however, there are those who want to expand the  
3 organic label to include methods, products and  
4 ingredients that reduce this distinction to the  
5 point of being meaningless. As members of the  
6 NOSB, you're the protectors of organic integrity.  
7 Please guard it wisely.

8 I want to discuss three significant  
9 issues today that could severely damage organic  
10 integrity. Others have already spoke about the  
11 USDA allowing operations to be certified,  
12 hydroponic operations to be certified. Organic  
13 agriculture has its roots in the soil.  
14 Certification of hydroponic dilutes and blurs this  
15 essential core feature of organic farming.

16 Number two, turning sunset rule upside  
17 down. A substance on the National List should  
18 sunset if it does not continue to have the same  
19 two-thirds majority support that placed it there.  
20 If upon review the NOSB believes that a substance  
21 continues to meet the criteria for an exemption or  
22 prohibition, the NOSB can recommend that by a

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1 decisive two-thirds vote to renew the substance.  
2 Just change that one word in your motions and you'll  
3 return -- restore the original intent and practice  
4 of sunset review.

5 Three, the certification of substances  
6 that are non-agricultural and/or synthetic.  
7 There are non-agricultural and synthetic  
8 substances that are prohibited for use as  
9 ingredients in organic products. That's a big  
10 part of why you're here. With that, however, some  
11 of these -- the synthetics -- excuse me, I'm --  
12 synthetic -- or the non-ag and synthetic substances  
13 that are prohibited for use as ingredients are  
14 being certified organic. With that organic  
15 certification, these otherwise prohibited  
16 substances are being allowed as ingredients in  
17 organic products. So it's not possible to be  
18 rationally consistent when conducting organic  
19 certification if a substance can be both prohibited  
20 and certified.

21 A couple of examples, since I may run  
22 out of time, is ethyl propionate, ethyl palate,

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1       sucrose   cocoate,   coconut   sucrose   esters,  
2       cocoglycerides, triethyl citrate.  These are all  
3       items that you can find on the Organic INTEGRITY  
4       Database as certified organic products.  If  
5       somebody wanted to use non-organic versions of  
6       those substances, it would not be allowed, yet  
7       somehow they're being certified.

8                If you look at the OFPA and NOP  
9       regulations, they clearly state that organic  
10      certification applies to agricultural products.

11               I guess I'll need to stop there.

12               CHAIR FAVRE:       Thank you.       Any  
13      questions for Sam?

14               (No response.)

15               CHAIR FAVRE:   Thank you very much.

16               MR. WELSCH:   Sure.

17               CHAIR FAVRE:       Next up is Holli  
18      Cederholm, and we've got Lee Frankel on deck.

19               MS. CEDERHOLM:   Good afternoon.  My  
20      name is Holli Cederholm, and I am the general  
21      manager of OSGATA -- the Organic Seed Growers and  
22      Trade Association.  We are the farmer-controlled

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1 national non-profit membership trade organization  
2 comprised of certified organic farmers, certified  
3 organic seed companies, organic seed professionals  
4 and organizations and individuals dedicated to the  
5 advancement of certified organic seed.

6 I would like to briefly touch on several  
7 of our issues that we've submitted extensive  
8 comments on on behalf of OSGATA's membership.

9 To begin, the National Organic  
10 Standards Board should table any further changes  
11 to the sunset process at this time, as the Federal  
12 Register notice was a rule issued without notice  
13 and comment as is required by law. This rule is  
14 currently the subject of litigation in federal  
15 court, which OSGATA is a plaintiff in.  
16 Additionally, any revision to the Policy and  
17 Procedures Manual must be open to public comment  
18 and also respect OFPA's requirement that NOSB be  
19 independent and not subservient to NOP.

20 OSGATA's members want to reiterate our  
21 second of several issues that organic production  
22 must be soil-based following the 2010

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1 recommendations. Therefore, hydroponic systems  
2 are not compatible with NOP organic certification,  
3 and there should be an immediate moratorium.

4           Regarding seed purity, we'd like to  
5 thank you for your continued attention. And we  
6 submitted more thorough comments, but the thing  
7 that I'd like to underscore today is that OSGATA  
8 would like to see the adoption of a non-detect  
9 threshold for all seed used in organic production.

10           We have a member-approved policy, which  
11 we've submitted to you time and time again, that  
12 states GE contamination of organic seed  
13 constitutes irreparable harm to the organic seed  
14 industry, and crops grown from contaminated seed  
15 will ultimately yield a contaminated product. GE  
16 pollution undermines the integrity of organic  
17 seed. Any detectable level is unacceptable.  
18 Importantly, the IFOAM organics, their policy  
19 that's in a working draft on GE and GMOs aligns with  
20 this position.

21           I'd like to present another policy  
22 which I've handed out a copy of. In February 2016,

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1 by unanimous vote of our membership, we passed a  
2 policy outlining in lay language four principles  
3 of organic plant breeding. We believe these  
4 principles establish a guiding framework which  
5 ensures the integrity of organic systems and should  
6 be used for determination of allowable breeding  
7 techniques in organic production.

8 Briefly, number one, respects plant  
9 integrity and is free of genetic manipulation at  
10 the sub-cellular level.

11 Number two, supports genetic diversity  
12 and opposes systems of crop monoculture.

13 Number three, remains farm-centered  
14 and that organic plant breeding must be able to be  
15 performed on a farm.

16 And number four, honors the public  
17 domain. The genetics are part of the commons and  
18 must remain accessible to farmers and plant  
19 breeders. Utility patents have no place in  
20 organic. Thank you.

21 CHAIR FAVRE: Tom?

22 VICE CHAIR CHAPMAN: In speaking to the

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1 PPM, you spoke about OFPA and independence. Can  
2 you give me a citation for that?

3 MS. CEDERHOLM: Well, so, one thing is  
4 we don't really want to speak further to that as  
5 a plaintiff. In the coalition challenge of USDA,  
6 we basically were guided not to give further  
7 comment, so I think I could prepare something, but  
8 I'd want to consult.

9 VICE CHAIR CHAPMAN: So you're okay  
10 with commenting to us that OFPA requires  
11 independence, but you won't give me a citation for  
12 where OFPA says that now?

13 MS. CEDERHOLM: No, can speak with you  
14 afterwards, but as --

15 MR. GERRITSEN: I can speak to that,  
16 Tom, as president.

17 VICE CHAIR CHAPMAN: I'll speak to you  
18 guys afterwards. I mean, there's procedure for  
19 that, but I want to hear you guys' comments. So  
20 at the next break I'll come and find you guys.  
21 Thank you.

22 MS. CEDERHOLM: So, and, Tom, I'd like

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1 to also address your comment that you brought to  
2 Jim earlier stating that OSGATA was the only  
3 organization that was against the efficient  
4 workload reorganization. I think that was a  
5 misinterpretation of our written comments. We  
6 actually didn't state that anywhere. I have a copy  
7 of what we've submitted. So --

8 VICE CHAIR CHAPMAN: Yes, the subject  
9 line says, "Sunset Reorganization?"

10 MS. CEDERHOLM: Yes, so that's why I'm  
11 saying it's a misinterpretation.

12 VICE CHAIR CHAPMAN: You meant the PPM,  
13 right, that section?

14 MS. CEDERHOLM: Yes.

15 VICE CHAIR CHAPMAN: Yes. Thank you.

16 CHAIR FAVRE: Any other questions?

17 (No response.)

18 CHAIR FAVRE: Thank you very much.  
19 Next up is Lee Frankel, with Brett Jurd on deck.

20 MR. FRANKEL: Okay. Thanks. Good  
21 afternoon. My name is Lee Frankel, and I'm the  
22 executive director for the Coalition for

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1 Sustainable Organics. The coalition is a group of  
2 environmentally and socially responsible growers  
3 of all sizes committed to maintaining the USDA's  
4 current high standards for certifying organic  
5 produce. Further, we believe in organics for  
6 everyone.

7 Over the past few weeks, I've met with  
8 and spoken with growers from all over the country.  
9 They have told me that containers are a critical  
10 tool that helps them best meet their site-specific  
11 conditions to foster the cycling of resources,  
12 promote ecological balance and conserve  
13 biodiversity as required by the organic  
14 regulations. I've also learned that most organic  
15 container operations are small family businesses.  
16 To me, they are the very embodiment of the public  
17 priority of the USDA to bring new and small farmers  
18 into the industry.

19 Now, I'd like you to imagine a  
20 Government program established with the purpose of  
21 reducing greenhouse emissions for people commuting  
22 to work. Members of the public are quickly excited

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1 by the potential to impact the world through their  
2 individual choices and begin to participate. Some  
3 people carpool; some people take public  
4 transportation; some buy a hybrid car, while others  
5 ride their bicycle to work. Some people even use  
6 a combination of the different methods depending  
7 on the weather or their schedule for the day. Now,  
8 imagine that a group of car companies comes in to  
9 say that riding a bicycle should not count since  
10 it doesn't have a mechanical motor. That just  
11 would not make sense.

12 Year after year, the Organic Trade  
13 Association Survey of the primary consumer  
14 motivations for purchasing USDA organic product  
15 show that consumers are looking to avoid pesticides  
16 in their fresh produce and to avoid added hormones  
17 and antibiotics in their meat products. Thus, for  
18 the vast majority of consumers produce grown in  
19 containers following USDA standards is every bit  
20 as organic as produce grown in the ground.

21 Let me make this clear: containerized  
22 organic growers rely on the same natural inputs and

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1 biological processes as open-field growers to  
2 nourish and grow their crops while using methods  
3 that have been in use for thousands of years. At  
4 a time when demand for organic produce is at an  
5 all-time high, changing U.S. organic growing  
6 standards to restrict containerized growing will  
7 limit the amount of organic produce available to  
8 consumers, making it less accessible and more  
9 expensive for those who want it. If a grower meets  
10 USDA standards for organic certification, their  
11 produce is organic, whether grown in the outer  
12 crust of the earth or other sustainable organic  
13 growing medium.

14 The members of the coalition admire the  
15 hard work and commitment of the members of the task  
16 force and the NOSB. We look forward to supporting  
17 you as you consider this issue moving forward.

18 CHAIR FAVRE: Thank you. Emily.

19 MEMBER OAKLEY: Thank you. I was  
20 wondering if you have a study that indicates that  
21 consumers are aware of hydroponics versus  
22 soil-grown organic systems, when you make the

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1 statement that consumers just want organic?  
2 Because I -- that was stated earlier, and I'm  
3 wondering if there's a study that that's being  
4 referred to?

5 MR. FRANKEL: It's a study of Organic  
6 Trade Association's Organic Attitudes and Belief,  
7 and they don't ask the question specifically,  
8 hydroponics or growing methods.

9 This is an open-ended question that  
10 they ask to consumers. What really matters to you?  
11 And this is what they come back with, are 20  
12 different items and not one of them includes  
13 whether it was hydroponic or grown in the soil.

14 CHAIR FAVRE: Any other questions.  
15 Thank you very much.

16 MR. FRANKEL: Thank you.

17 CHAIR FAVRE: Next up is Brett Jurd.  
18 We've got Daniel Fabricant on deck.

19 MR. JURD: Good afternoon. My name is  
20 Brett Jurd, and I'm here representing the Synthetic  
21 Amorphous Silica and Silicate Industry  
22 Association.

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1           On behalf of SASSI, I'd like to thank  
2 you for giving us the opportunity to comment on the  
3 sunset review of silicon dioxide. SASSI would  
4 like to request that silicon dioxide remain on the  
5 list of allowable substances.

6           Based on a review by a number of our  
7 member companies reported to NOSB, and our comment  
8 letters dated November 11th, 2011, December 20th,  
9 2013, and April 7, 2015, coupled with recent  
10 experiences reported to us by food processors,  
11 silicon dioxide remains an essential and  
12 irreplaceable ingredient in a broad number of  
13 applications, including, but not limited to, free  
14 flow agents and as an anticaking agent.

15           As you're likely aware, silicon dioxide  
16 has been safely and successfully employed for more  
17 than 70 years in the food industry. Critical for  
18 consideration is the safety of silicon dioxide.  
19 It has been extensively studied and has broad  
20 regulatory approval, both here in the U.S. and  
21 overseas where U.S. manufactured organic products  
22 may be sold.

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1           Decades of improvement to silicon  
2 dioxide have resulted in a substance of extremely  
3 high purity and exceptional performance and  
4 consistent quality.

5           These facts allow the organic industry  
6 to use silicon dioxide with the confidence needed  
7 in organic food industry to consistently supply  
8 high-quality products.

9           While we do acknowledge that there may  
10 be specific limited applications where silicon  
11 dioxide -- excuse me, limited applications were  
12 currently available alternatives to silicon  
13 dioxide may provide acceptable performance,  
14 SASSI's members are confident that they cannot be  
15 used as a viable replacement for all silicon  
16 dioxide and all the applications where it is  
17 currently employed.

18           Given its broad range of applications,  
19 silicon dioxide would have -- the de-listing of  
20 silicon dioxide would have a significant adverse  
21 effect on the organic food producer's ability  
22 provide acceptable products to the consumer.

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1                   For the above reasons, we therefore  
2                   feel that it is imperative that silicon dioxide  
3                   remain on the list of allowable ingredients.  
4                   Thank you.

5                   CHAIR FAVRE:        Thank you.        Any  
6                   questions?   Lisa.

7                   MEMBER DE LIMA:        So you briefly  
8                   mentioned that there were some uses where  
9                   alternatives were viable, just not all uses.  
10                  Could you speak some more to the specifics of where  
11                  alternatives do work?

12                  MR. JURD:    The -- I'm not -- I believe  
13                  defoaming with a Ryzolt product.   That's the only  
14                  one that I'm familiar with.

15                  CHAIR FAVRE:   Harold.

16                  MEMBER AUSTIN:   During this last --  
17                  this current sunset review cycle, for the areas  
18                  where you say that there's no specific alternatives  
19                  that are effective, has there been work done,  
20                  though, to try to look at alternatives that have  
21                  not been successful?

22                  MR. JURD:    We're a silica producer, so

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1 we don't really look at alternatives. I'm not sure  
2 if other people do. What -- the feedback we're  
3 getting from our customers is no. But, to be  
4 honest --

5 (Laughter.)

6 CHAIR FAVRE: Thank you very much.

7 MR. JURD: Thank you.

8 CHAIR FAVRE: Next up is Daniel  
9 Fabricant and we've got Susan Finn on deck.

10 DR. FINN: Thank you, Tracey. I'm  
11 Daniel Fabricant, the Executive Director and CEO  
12 with the Natural Products Association, the oldest  
13 and largest trade association representing sellers  
14 and manufacturers of natural and organic products  
15 in this country. Thank you for your time today.

16 Consistent with our written comments,  
17 we urge this Board to really weigh the evaluation  
18 of carrageenan strictly on the scientific  
19 evidence, which has been evaluated by the world's  
20 experts many times over. Those experts include  
21 the ultimate food authority here in the U.S., the  
22 FDA, the FSA, WHO, JECFA, and many others.

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1           At this time, carrageenan has been  
2 repeatedly shown to be safe for consumption of both  
3 organic foods and organic infant formula.  
4 Carrageenan is in many food products and consumer  
5 goods as a thickener, emulsifier, stabilizer, and  
6 gelling agent.

7           In addition to its long history of safe  
8 use, it is allowed by FDA as a direct food additive  
9 and a grass substance. During my time as a  
10 Division Director at the FDA, there was never a  
11 rendering that carrageenan presented unreasonable  
12 risk of illness or injury, or any other harm to be  
13 rendered adulterated.

14           In addition, USDA's AMS conducted an  
15 independent review, which included consultation  
16 with experts from FDA, to gain a detailed  
17 understanding of the regs allowing for safe use of  
18 carrageenan in infant formula and foods.

19           In that review, FDA continued to  
20 maintain that carrageenan is safe for use in food  
21 and infant formula. The last time there was a  
22 public hearing inquiry into carrageenan, the NOSB

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1 recommended that carrageenan be excluded from  
2 organic infant formulas. However, a prior May  
3 2012 NOSB meeting the Handling Subcommittee USDA  
4 reiterated that carrageenan was compatible with  
5 organic production practices and does not reveal  
6 an unacceptable risk to the environment, human, or  
7 animal health. A 2013 opinion from USDA in a  
8 proposed rule, once again, upheld that opinion.

9 While we understand the NOSB has a broad  
10 mandate, the larger focus is deemed whether or not  
11 a material is appropriate for use in organic  
12 products, not establish themselves as a  
13 toxicological evaluation body, such bodies already  
14 exist.

15 Consistent with that theme and other  
16 regulatory agencies, a 2003 opinion of JECFA, which  
17 has met no less than seven times on safety, has  
18 never prohibited its use.

19 Speaking -- in closing, any regulators  
20 who would not consider the totality of the science  
21 will get in real trouble as either being arbitrary  
22 or capricious, so again, I implore this Board to

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1 look at the science, and also, FDA has rendered an  
2 opinion many times that the ingredient is perfectly  
3 safe.

4 In addition to that rendering, we'll be  
5 requesting that they formally put it to their  
6 external advisory committee to no longer hold the  
7 science hostage. So with that, thank you for your  
8 time.

9 CHAIR FAVRE: Any questions for  
10 Daniel? Thank you very much.

11 Next up is Susan Finn, and we've got  
12 Margaret Barnes on deck.

13 DR. FINN: Thank you very much for the  
14 opportunity to speak with you here today, and I  
15 value you what you do to make healthy choice foods  
16 available to people.

17 I am Susan Finn. I am a PhD Registered  
18 Dietician Nutritionist. I am speaking here on  
19 behalf of the United 4 Food Science where I am the  
20 Director.

21 We are a coalition of scientists,  
22 academics, nutritionists, toxicologists, experts

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1 in agriculture and food production, and we are all  
2 dedicated to ensuring that unbiased science  
3 remains the foundation of Washington's decision  
4 making process.

5 Over my 40-year career, including  
6 leadership in the Academy of Nutrition and  
7 Dietetics, the largest nutrition organization in  
8 the world, I have championed the necessity of  
9 basing our nation's food and nutrition policy on  
10 sound science.

11 Today's topic is the organic status of  
12 carrageenan but the fundamental question here at  
13 the table is, will the guiding principles of this  
14 country's food and nutrition policy be based on  
15 facts and sound data, or will it acquiesce to loud  
16 voices, anxiety-creating tactics and questionable  
17 research?

18 Carrageenan is the case in point here,  
19 of course. Although long approved by the USDA for  
20 its use in organic foods, a vocal opposition is  
21 questioning its safety. However, extensive data  
22 based on centuries of use and decades of studies

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1 lead to these conclusions. Carrageenan is not  
2 even only safe, effective, and economic, it's  
3 essential.

4 It's essential to the ground-breaking  
5 innovations in food science that help make our  
6 diets healthier, and healthier foods. For  
7 example, to combat obesity major food companies  
8 have literally eliminated trillions of calories  
9 from the food supply by reducing fat, salt, and  
10 sugar. Thanks to carrageenan, these ingredients  
11 can be removed without compromising texture and  
12 consistency and customers have become accustomed  
13 to that.

14 Second, carrageenan is essential to the  
15 nutritional value of some of our most critical  
16 products, infant formula, medical nutrition  
17 products, carrageenan's emulsifying stabilizing  
18 properties ensures a palatable taste and texture,  
19 meaning infants and patients receive balanced  
20 packet of nutrients from that first sip to that last  
21 drop. Unlike other substitutes, carrageenan  
22 accomplishes this without altering taste and

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1 color.

2 And third, carrageenan is essential to  
3 the fight against food and nutrition insecurity.  
4 Carrageenan's properties give canned foods, often  
5 stored in food banks and transported long distance,  
6 a stable, long shelf life, without compromising  
7 health, cost, or safety.

8 So these facts are based on decades of  
9 proven research and good evidence. This is the  
10 quality of science that nutrition experts around  
11 the world rely on to make decisions. I hope you,  
12 too, rely on sound science when you make your  
13 decisions regarding carrageenan. Thank you.

14 CHAIR FAVRE: I'm guessing you must  
15 have practiced that a time or two.

16 DR. FINN: No I didn't.

17 CHAIR FAVRE: Zea, you had a question?

18 MEMBER SONNABEND: Yes. Thank you for  
19 your comments, and I'm sorry to have to ask you this  
20 question, but there's a lot of -- you may have read  
21 some of the other comments, or not, and there's a  
22 lot of accusations and insinuations of bias in the

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1 various research and comment perspectives. And  
2 so, I am wondering, how your organization is funded  
3 and if you are receiving any funding from the  
4 carrageenan manufacturers?

5 DR. FINN: Ours is a coalition funded  
6 by a group of different organizations and, yes,  
7 they do support other coalition's activities.  
8 And, of course, the research we pulled together  
9 based on sound science from many, many decades of  
10 research.

11 MEMBER SONNABEND: And, not just on  
12 carrageenan, on other nutritional subjects?

13 DR. FINN: We look across the board but  
14 primarily right now, we're, of course, focusing on  
15 carrageenan.

16 MEMBER SONNABEND: Okay.

17 CHAIR FAVRE: Harold.

18 MEMBER AUSTIN: Could you, in your  
19 opinion, give us your thoughts or input on the level  
20 of scientific expertise that guides JECFA and the  
21 WHO and their recent releases on the information  
22 regarding carrageenan?

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1 DR. FINN: Again, I'm not the world's  
2 expert on that committee's recommendation. Some  
3 of the scientists would probably give you -- that  
4 you heard in the webinar, may give you even more,  
5 but World Health Organization and Joint Expert  
6 Committee on Additives have long approved  
7 carrageenan for use.

8 We have a long, long history of a lot  
9 of the research on products, such as infant  
10 formula, have a long -- decades and decades of  
11 history on it.

12 CHAIR FAVRE: I had one quick question  
13 for you.

14 DR. FINN: Sure.

15 CHAIR FAVRE: You mentioned that the  
16 properties of carrageenan used, for instance, in  
17 infant formula ensured the nutritional quality.

18 DR. FINN: Right.

19 CHAIR FAVRE: Can you speak to that a  
20 little bit?

21 DR. FINN: Yes. Both infant nutrition  
22 -- infant formulas as well as medical nutrition

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1 products that are used primarily orally by  
2 patients, like cancer patients, would be an example  
3 of that patient.

4 When you have a product that's stable,  
5 that it's emulsified, that infant, or that patient,  
6 is getting a complete of nutrients at swallow.  
7 It's not separated. It's all together in a stable  
8 emulsion. And for that reason, they're getting  
9 all the nutrients, no matter how much of that  
10 product they drink.

11 They may not finish the whole cup, or  
12 the whole glass, or the whole bottle, but they're  
13 still getting the maximum nutrients in that volume.

14 CHAIR FAVRE: Just as a follow up to  
15 that, we've seen in some of the public comments that  
16 without carrageenan a consumer would basically  
17 just have to shake the product repeatedly and is  
18 there any reason why that couldn't be done?

19 DR. FINN: Not acceptable. It's  
20 nothing, I think, that people would want to do, but  
21 yes. But it would hold in solution. It would fall  
22 apart very quickly.

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1                   CHAIR FAVRE: Thank you. Any other  
2 questions for her? Thank you very much. Thank  
3 you for your excellent timing today, too.

4                   Next up is Margaret Barnes, followed by  
5 Charlotte Vallaeys.

6                   MS. BARNES: Hello. I hope I'm as  
7 short as she is but I don't think I will be. My  
8 name is Margaret Barnes. I'm with Moms Across  
9 America and I co-founded the Moms Across America  
10 in Maryland, and I founded the Moms Across America  
11 at Eastern Shore.

12                   I have a testimonial I'd like to read,  
13 but I first would like to say that on my way here  
14 from the Eastern Shore, I passed several fields  
15 that were just completely red and the reason  
16 they're red is because they're cover crops, and  
17 they were saturated in Roundup and Atrazine to  
18 destroy the cover crops because, obviously, the  
19 farmers no longer want to till them and it's just  
20 -- dealing with the poultry industry on the Eastern  
21 Shore has been something that's been all consuming  
22 lately. They're expanding rapidly.

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1           And it's a huge concern for me, as a  
2 parent, but also in terms of organic food,  
3 particularly, manure, fertilizer, any manure  
4 fertilizer that is coming from factory farms has  
5 to be held to a higher standard than it is.

6           I know that the lady before me was  
7 talking about infant formula and of course, you  
8 know, they -- arsenic has been found not only in  
9 conventional formula but also organic, and a lot  
10 of that has to do with the arsenic that was  
11 deliberately fed to chickens as part of the feed.

12           So this is something that concerns me  
13 a lot is -- frankly, it's the one that frightens  
14 me more than anything when it comes to keeping our  
15 organic food organic.

16           So anyway, dear -- and if I run too long  
17 please cut me off. Dear distinguished NOSB Board  
18 Directors, thank you for the opportunity to address  
19 the Board. I appreciate what you do to protect the  
20 standards for organic food, particularly as a  
21 mother, because our children are exposed to more  
22 chemicals, pesticides, herbicides, and heavy

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1 metals than at any other time in history.

2 We are facing a health crisis in America  
3 and we need you to be vigilant more than ever to  
4 protect our children in a fight for a sustainable  
5 future.

6 The present day reality of our health  
7 is shocking. According to Steve Wolf of the 2014  
8 U.S. World Health Report, of the top 17 most  
9 developed countries, the USA is last in health. In  
10 a 2014 Save the Children Report, of the top  
11 developed countries -- oh, oops. I didn't get to  
12 read this.

13 This is mainly about glyphosate, and  
14 how it's being found pretty much in everything now.  
15 And it's being so liberally used that it's almost,  
16 you know, not even regarded as something dangerous.  
17 Though, anyway, that's what I have. But if you  
18 would like to know about chicken CAFOs on the  
19 eastern shore, I can tell you about that.

20 CHAIR FAVRE: Do we have any questions  
21 for Margaret? Thank you very much.

22 MS. BARNES: Thank you.

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1 CHAIR FAVRE: Next up is Charlotte  
2 Vallaeys, and followed by Kip Rondy.

3 MS. VALLAEYS: Good afternoon. My  
4 name is Charlotte Vallaeys and I'm a Senior Policy  
5 Analyst with Consumer Reports Food Safety and  
6 Sustainability Center.

7 The value of the organic label lies in  
8 the strength of the organic law and regulations,  
9 which promise consumers a consistent standard for  
10 organically produced foods, and create a  
11 meaningful process with strict limits for  
12 determining what can and cannot be used in organic  
13 food production.

14 Carrageenan should be removed from the  
15 National List. It does not meet the criteria in  
16 OFPA. Laboratory research in animals have shown  
17 ulcerative colitis-like disease and intestinal  
18 lesions and ulcerations in some animals.

19 Additional studies in animals have  
20 shown carrageenan may act as a promoter of colon  
21 tumors. Recent research suggests that  
22 carrageenan may also contribute to the development

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1 of Type II Diabetes.

2 The NOSB should use the precautionary  
3 principle. The burden of proof, given this  
4 existing scientific literature, should not fall on  
5 consumers.

6 We believe NOSB should consider the  
7 difference between materials that are necessary to  
8 the production of an organic product, like yeast  
9 in bread, and materials that are just convenient  
10 or useful. Our 2016 Consumer Survey shows that 70  
11 percent of consumers do not think that non-organic  
12 ingredients should be added to organic foods if  
13 they are not deemed essential.

14 We do not believe there's currently any  
15 organic product on the market that could not be made  
16 without carrageenan. It is therefore, not  
17 essential.

18 We oppose listing oat beta-glucan for  
19 the same reason. It fails the OFPA criteria of  
20 essentiality.

21 For SDBS, the NOSB should not vote to  
22 list it on the National List without a TR. For

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1 ancillary substances, the NOSB should review all  
2 ingredients that end up in organic foods to OFPA  
3 criteria.

4 Our 2016 survey found that 91 percent  
5 of consumers think artificial materials or  
6 chemicals should not be used during processing of  
7 organic foods, and 89 percent of consumers think  
8 that the organic label on processed and packaged  
9 foods should mean no artificial ingredients or  
10 colors were used.

11 We continue to urge the NOSB to review  
12 all materials, including ingredients of  
13 ingredients used in organic production, to OFPA  
14 criteria, to determine whether they are not harmful  
15 to human health and the environments, whether they  
16 are essential, and compatible with organic  
17 production.

18 For nutrient vitamins and minerals, we  
19 propose listing vitamins and minerals as a category  
20 on both 205.605(a) and (b), with individual  
21 vitamins and minerals listed underneath after they  
22 have undergone full review by the NOSB to OFPA

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1 criteria.

2 Many sources of vitamins and minerals  
3 already appear individually on the National List,  
4 such as iron, Vitamin C, and only a handful,  
5 including Vitamin A and Vitamin D, would need to  
6 be petitioned. Thank you.

7 CHAIR FAVRE: All right, thank you.  
8 Jane, you had a question? Followed by Tom.

9 MEMBER RICHARDSON: Charlotte, did  
10 Consumer Reports any work in regards the seaweed  
11 sources of carrageenan and their over-harvesting,  
12 as part of the research on that material?

13 MS. VALLAEYS: No, we didn't do any  
14 research on that. After we reviewed the  
15 scientific literature on the human health effects,  
16 it was pretty clear to us that on that basis alone  
17 it should not be re-listed.

18 MEMBER RICHARDSON: Thank you.

19 CHAIR FAVRE: Tom.

20 VICE CHAIR CHAPMAN: You made comments  
21 about alternatives to carrageenan or that there's  
22 alternative products --

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1 MS. VALLAEYS: Oh --

2 VICE CHAIR CHAPMAN: Yes, right here.  
3 I know it's confusing the voice coming from there  
4 and there.

5 MS. VALLAEYS: Right.

6 VICE CHAIR CHAPMAN: You talked about  
7 alternative products on the marketplace that don't  
8 contain carrageenan. Most of those contained  
9 other gums and gelling gum, are those also  
10 materials that Consumer Reports opposes, or --

11 MS. VALLAEYS: Nope.

12 VICE CHAIR CHAPMAN: -- are those  
13 alternatives --

14 MS. VALLAEYS: No you'll have no --

15 VICE CHAIR CHAPMAN: -- acceptable?

16 MS. VALLAEYS: I'm sorry. Yes, you  
17 notice for agar-agar, gellan gums, some of the  
18 alternatives to carrageenan, we have not submitted  
19 comments opposing the re-listing of those. And we  
20 have done a search of the scientific literature on  
21 human health effects of those gums, and unlike  
22 carrageenan, we do not object to the human health

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1 effects -- that they don't meet the human health  
2 effects criteria in OFPA. So -- whereas  
3 carrageenan doesn't.

4 VICE CHAIR CHAPMAN: Specifically to  
5 human health, on the other criteria, do you have  
6 objections on those substances?

7 MS. VALLAEYS: Their essentiality, you  
8 mean? Yes, I mean, we still think -- and we  
9 continue to think that if something is being used  
10 because it is useful or convenient, for example,  
11 the alternative would be to put a shake well words  
12 on the label.

13 Yes, we do believe that that is an  
14 alternative. Creating a certain mouth feel for a  
15 product that doesn't -- or a creamy, fatty mouth  
16 feel for a product that doesn't have cream, we don't  
17 think that that's essential. We think it doesn't  
18 meet those criteria.

19 VICE CHAIR CHAPMAN: Thank you.

20 CHAIR FAVRE: Emily.

21 MEMBER OAKLEY: You and a couple of  
22 others reported objections to the ancillary

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1 substances proposal and I'm wondering if you could  
2 specify how each material could be reviewed  
3 individually?

4 MS. VALLAEYS: Our objection is based  
5 on OFPA which doesn't distinguish between  
6 ingredients of ingredients, so if it's an  
7 ingredient of an ingredient that's on the National  
8 List, it still ends up in an organic food and  
9 consumers do have those expectations that when they  
10 buy a food with the organic label that everything  
11 that ended up in that food, however it ends up in  
12 there, has been reviewed to OFPA criteria by the  
13 NOSB.

14 So based on that, we believe that  
15 ancillary substances should be reviewed  
16 individually to OFPA criteria to determine whether  
17 they meet human health and environmental  
18 compatibility and essentiality criteria.

19 CHAIR FAVRE: Any other questions?  
20 Thank you.

21 MS. VALLAEYS: Thank you.

22 CHAIR FAVRE: Next up is Kip Rondy,

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1 followed by Jay Highman.

2 MR. RONDY: My name is Kip Rondy. With  
3 my wife Becky and I, along with nine or ten other  
4 year-round employees, we make up -- which is Green  
5 Edge Gardens in Athens, Ohio.

6 We are a full-time year-round vegetable  
7 farmers and are solely dependent on our farm income  
8 for many years. I'm a certified -- I've been a  
9 certified organic grower for most of my life.

10 We certify for a couple of reasons.  
11 Most was to preserve and improve the integrity of  
12 the land and the nutritional content of the food  
13 we grow. The second reason we certified is to  
14 obtain a higher price for our produce.

15 I want to talk to you about three  
16 things, integrity of the organic name, economic  
17 stability of small and medium-sized farms, and the  
18 legacy to the next generation.

19 It's on the web and in the print media  
20 that frack water is being used for irrigation in  
21 both conventional and organic food crops, mostly,  
22 at present, in California.

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1           In my county alone, that's in Athens,  
2 Ohio, we are injecting over a million gallons  
3 annually of frack waste into the Earth, supposedly  
4 never to be seen again. Well, at least not for a  
5 few years. That's a joke.

6           I am sure, if it got dry enough at home,  
7 the frack water we are currently injecting into the  
8 earth would find in agricultural use. And what do  
9 we do, the guardians of the organic name, in light  
10 of this unwanted publicity? We wring our hands,  
11 and say it's up to the EPA. What good are standards  
12 if you don't have the courage to enforce them?

13           At stake here is everything that we in  
14 organic growers have built over the last 40 years,  
15 as far as the development of a public image and the  
16 quality and integrity of the organic brand and we  
17 are willing to throw that away to satisfy a flawed  
18 bureaucracy, and dare I say, a large corporate  
19 interest.

20           And what about the economic stability  
21 of the organic spot to the small and medium-sized  
22 farms? Are we willing to trash that just after

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1 family farms are beginning to make a comeback? Oh  
2 I know, we'll start local. That'll be a good idea.  
3 Until somebody else comes along and takes that away  
4 from us.

5 What good are standards, if we don't  
6 have the courage to enforce them? Since taking our  
7 farm over in 1984, the ground is substantially  
8 better -- in better condition than when it was when  
9 I first came to the farm. I owe much of that  
10 improvement to the influence and guidance from  
11 other conscientious farmers, both regionally and  
12 nationally.

13 In summation, I would say, what good are  
14 standards, if we don't have the courage to enforce  
15 them? Thank you.

16 CHAIR FAVRE: Any questions for Kip?

17 MR. RONDY: Thank you.

18 CHAIR FAVRE: Thank you very much.

19 Next up is Jay Highman, followed by Alesia Bock.

20 MR. HIGHMAN: Hello --

21 CHAIR FAVRE: And --

22 MR. HIGHMAN: -- I'm Jay Highman, and

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1 I --

2 CHAIR FAVRE: Excuse me, just a minute.

3 MR. HIGHMAN: Sorry.

4 CHAIR FAVRE: Just as a reminder to  
5 everybody making comments, if you can make sure you  
6 can speak up, some of the board members are having  
7 a hard time hearing some folks. Just make sure you  
8 project. Thank you.

9 MR. HIGHMAN: Hi, I'm Jay Highman,  
10 President and CEO of Nature's One. I'm talking  
11 today about the need for synthetic vitamins and  
12 minerals in organic products.

13 There's three reasons for nutrition in  
14 vitamins and minerals in organic products. One is  
15 nutrition for tube and enteral fed patients, second  
16 is Centers for Medicaid and Medicare require  
17 vitamins and minerals, and also the FAO/WHO do as  
18 well.

19 First of all, let's talk about enteral  
20 nutrition. It's nourishment administered into  
21 the gastrointestinal tract, either orally or  
22 through tube feeding. Each day 500,000 children

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1 and adults are tube-fed. There are a variety of  
2 reasons for this, childhood cancers, congenital  
3 heart defects, cleft pallet, metabolic disorders.  
4 There's over 300 medical conditions that require  
5 tube feeding nutrition.

6 Vitamins and minerals are just a  
7 necessary part of their daily lives and are very  
8 important for their livelihood and for their  
9 continuation to thrive. Synthetic vitamins and  
10 minerals are the only option for organic enteral  
11 products.

12 The second reason is Centers for  
13 Medicaid and Medicare require that vitamins and  
14 minerals be included to be classified according to  
15 what is commonly known as B Codes. This is a common  
16 procedure coding system.

17 Nature's One's formulas are registered  
18 and approved using this HCPCS 2016 Code called  
19 B4158. The FAO and WHO also require -- there's a  
20 definition for follow-up formulas and it's defined  
21 as food prepared from the milk cows or other animals  
22 and it's basically for infants six months on and/or

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1 for young children. And, again, the CODEX  
2 standards specify that there's a minimum and  
3 maximum amount of nutrients in follow-on formulas.

4 So the three reasons, essentially,  
5 Medicare/Medicaid require it, the B4158 Codes, the  
6 CODEX requires it for toddler formulas and  
7 follow-on formulas, and enteral and tube-fed  
8 children require this for their survival.

9 I don't think that relieves us of any  
10 commitment to organic as a company. We're always  
11 pursuing organic vitamins and minerals, but as we  
12 all know that has to be proven and the efficacy has  
13 to be known.

14 So I respectfully request that the  
15 final annotation includes reference to allow  
16 synthetic vitamins and minerals for enteral  
17 products and HCPCS B Codes, and also, for formulas  
18 meeting CODEX standards for follow-on feedings.  
19 Thank you.

20 CHAIR FAVRE: Tom.

21 VICE CHAIR CHAPMAN: The formulas for  
22 follow-on feeding, is that for medical purposes or

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1 is that for formulas for kids over the age of one?

2 MR. HIGHMAN: For both. But  
3 essentially the B codes are assigned to medical  
4 foods or medical formulas, which would be enteral  
5 tube fed.

6 VICE CHAIR CHAPMAN: And would the  
7 citation to the references that we have already  
8 cited be applicable, that list that allowed  
9 vitamins and minerals?

10 MR. HIGHMAN: No, one, two, and three  
11 do not account for enteral fed or for the CODEX  
12 standard. So that's the inclusion that we would  
13 respectfully request be included.

14 VICE CHAIR CHAPMAN: Thank you. I  
15 have one more question. So I assume you're a  
16 manufacturer of these products --

17 MR. HIGHMAN: Yes.

18 VICE CHAIR CHAPMAN: -- enteral food,  
19 organic ones, as well, I guess?

20 MR. HIGHMAN: Only organic, yes.

21 VICE CHAIR CHAPMAN: Only organic. Do  
22 you use carrageenan in any of those products?

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1 MR. HIGHMAN: Do we use carrageenan?  
2 No we do not.

3 VICE CHAIR CHAPMAN: You do not.  
4 Thank you.

5 (Laughter.)

6 MR. HIGHMAN: I got some points  
7 someplace back there for that.

8 CHAIR FAVRE: Harold.

9 MEMBER AUSTIN: Have you submitted  
10 your comments and this information with these  
11 bullet points in writing to us, or --

12 MR. HIGHMAN: We submitted a letter,  
13 yes, with all these.

14 MEMBER AUSTIN: Okay.

15 CHAIR FAVRE: So before you go, I just  
16 want to clarify. So what you're saying is that we  
17 need to add this as an annotation to the listing,  
18 in addition to the recommendations that we've  
19 already got?

20 MR. HIGHMAN: Yes.

21 CHAIR FAVRE: Okay.

22 MR. HIGHMAN: For these specific uses,

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1 yes.

2 CHAIR FAVRE: Okay. Thank you. Any  
3 other questions?

4 All right. Thank you, Jay.

5 MR. HIGHMAN: Thank you very much.

6 CHAIR FAVRE: Next up is Alesia Bock,  
7 followed by Amalie Lipstreu.

8 MS. BOCK: Hello. My name is Alesia  
9 Bock, the Director of AgriSystems International.  
10 Thank you for the opportunity to provide feedback  
11 today. I'm here to provide client feedback on  
12 several sunset items as well as two of the petitions  
13 for handling.

14 For sunset, we support the re-listing  
15 of copper sulfate and per acetic acid, and for  
16 handling, we support the re-listing of silicon  
17 dioxide and cellulose as the anticaking agents,  
18 enzymes for cheese production and beta-carotene  
19 for naturally derived color.

20 Secondly, we support two petitions  
21 being evaluated by the Handling Committee,  
22 specifically, the sodium and potassium Lactate and

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1 STBS as antimicrobials. And we don't take this  
2 position lightly.

3 We very much appreciate the Board for  
4 your work. You have the monumental task of  
5 evaluating all these materials against OFPA  
6 criteria, as well as taking into account many  
7 diverse stakeholder positions and needs.

8 We applaud the clear trend since 2007  
9 that has consistently reduced the number of  
10 non-organic materials on the National List by  
11 supporting time it takes to develop commercially  
12 available organic opportunities. This is how the  
13 system is designed to work.

14 However, we would request that the  
15 Board consider these two handling petitions in the  
16 broader context of food safety, to ensure that the  
17 industry has robust antimicrobials in their  
18 restricted toolbox until organic alternatives are  
19 developed and commercially available.

20 Specifically regarding potassium  
21 lactate and sodium lactate, we understand that  
22 these materials are critical antimicrobials to

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1 reduce pathogens in organic meat products. HPP  
2 may be an option longer term, but for small  
3 producers it may not be commercially viable.

4 For SDBS, this is an active ingredient  
5 in a product specifically developed for food  
6 service applications, such as restaurants and  
7 stores, to prepare fruits and vegetables in a safe,  
8 sanitary manner.

9 Per CCOF criteria, it appears that  
10 these materials meet human health and  
11 environmental impact. These are also very unique,  
12 specific safer alternatives for food service  
13 employees that are safer to use than other  
14 currently allowed sanitizers and cleaners on the  
15 List.

16 Consumers are demanding more quality  
17 organic foods and the industry is responding.  
18 However, food safety must remain top of mind for  
19 everyone.

20 While Chipotle was the first national  
21 restaurant chain that pledged the self-sustainably  
22 raised non-GMO food, we were thrilled. But the

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1 recent illness events have shaken consumer  
2 confidence and threatened to carry over to the  
3 organic industry, just as the bagged spinach  
4 recalls did a few years ago.

5 So as organics continue to grow, we need  
6 to make sure that robust and environmentally  
7 friendly food safety goals are available to  
8 handlers, while the industry is continued to  
9 encourage to continue developing suitable organic  
10 alternatives, especially for use in the food  
11 service industry as consumers expect organic  
12 products for on-the-go occasions. Thank you.

13 CHAIR FAVRE: Thank you. Any  
14 questions? Harold.

15 MEMBER AUSTIN: For -- as for sodium  
16 dibenzyl sulfonate, do you know what currently is  
17 being used, right now, in place of that, if  
18 anything?

19 MS. BOCK: We have attempted to find  
20 out from retailers, specifically on the questions  
21 that the Board was asking. We didn't get as much  
22 feedback on that, as we'd like. There's someone

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1 else here who might have more information than I  
2 do on that so I'd like to defer.

3 CHAIR FAVRE: Go ahead.

4 MEMBER AUSTIN: Okay, switching gears  
5 to sodium and potassium lactate. It looks like  
6 most of the information that we're getting back is  
7 really more in support of sodium lactate, rather  
8 than potassium lactate. Can you give us any  
9 further information on that?

10 MS. BOCK: From what I understand  
11 through people that I know that are using sodium  
12 lactate, it seems to be the more common used one.  
13 We didn't hear back from anyone specifically  
14 stating that potassium lactate or sodium would be  
15 better or worse. At least I didn't get any  
16 personal feedback from that.

17 CHAIR FAVRE: Thank you very much.  
18 Okay, next up is Amalie or Amalie Lipstreu, and  
19 we've got Julia Barton on deck.

20 MS. LIPSTREU: Good afternoon. The  
21 Ohio Ecological Food and Farm Association is a  
22 grassroots coalition of over 4,000 members working

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1 to develop a healthy and sustainable food system.  
2 Our certification program certifies over 950  
3 producers and handlers in 18 states.

4 Organic food represents something  
5 pure, something nutritive, chemical-free, an  
6 ecological system of agriculture. The nature of  
7 organic farming requires our farmers to be  
8 indigenous to place in a way that's unique in  
9 agriculture and requires mutual dependencies on a  
10 high-quality natural resource base.

11 OEFFA provided comments last fall about  
12 how unconventional oil and gas extraction is  
13 impacting organic farms and the potential for that  
14 harm to grow.

15 Since that time, the impacts of high  
16 pressure hydraulic fracturing have continued to  
17 increase, as has public awareness about the  
18 negative effects on organic farms and organic  
19 products.

20 And here's what we know.  
21 Approximately 20 percent of organic farms in the  
22 United States are in close proximity to areas of

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1 shale gas extraction. There are no national  
2 restrictions in place protecting organic farms from  
3 production wells, injection wells, pipeline  
4 impacts, or compressor station impacts.

5 Most gas drilling and extraction is  
6 exempt from requirements of the Underground  
7 Injection Control Program of the Safe Water  
8 Drinking Act and has similar exemptions from the  
9 Clean Air Act and the Clean Water Act.

10 There's little to no ability to test for  
11 the contaminants used in the fracking industry due  
12 to trade secret protection from many of the  
13 chemicals used in this process.

14 So these issues combined to make it  
15 difficult for local communities and the  
16 Environmental Protection Agency to protect the  
17 water quality and integrity of organic farming  
18 operations.

19 We can't rely on the EPA because of a  
20 lack of regulatory authority, and in the past these  
21 threats have been confined to areas of shale gas  
22 extraction. That's not necessarily the case

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1 anymore.

2 The injection wells that often contain  
3 over 60 different chemicals do not have to be in  
4 the locations that you see on the screen that are  
5 in this food/energy/water interface.

6 So many -- additionally, many proposed  
7 pipeline infrastructure projects will transect  
8 productive pastures and crop land. Despite these  
9 challenges, there are things we can do to be  
10 proactive.

11 The energy and agricultural interface  
12 is unique for organic agriculture and there are  
13 important discussions to have, coalitions to  
14 build, and actions to take.

15 I urge you to place this issue on the  
16 work agenda for the NOSB and know that we commit  
17 to providing any resources and assistance that we  
18 can. Thank you.

19 CHAIR FAVRE: Any questions?

20 Thank you very much. Next up is Julia  
21 Barton, followed by Patty Lovera on deck.

22 MS. BARTON: Good afternoon. My name

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1 is Julia Barton. I'm also with the Ohio Ecological  
2 Food and Farm Association. It's nice to see you  
3 all. Thank you for your work.

4 There are two key items I'd like to  
5 address with you, today. The first has to do with  
6 inspector evaluations. Thank you for adding this  
7 to the CAC's work plan. We are very excited about  
8 that discovery today.

9 As you know, the NLP has communicated  
10 to certifiers that every organic inspector must  
11 undergo a field evaluation every year. OEFFA  
12 disagrees with this requirement.

13 We work with about 35 contract  
14 inspectors, in addition to staff inspectors, to  
15 cover about an 18-state region. Earlier, Jean  
16 asked about the cost associated with conducting  
17 annual field evaluations for inspectors.

18 We estimate an annual cost of \$25,000  
19 to conduct a field evaluation for every inspector  
20 we work with every year. This is a high cost, which  
21 has been passed on to organic producers, as part  
22 of their certification fees.

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1           Here are a few examples, in which this  
2 requirement presents a challenge for us. When  
3 working with a new inspector, we determine if the  
4 contract situation is a good fit for OEFFA.

5           It's inefficient to conduct a field  
6 evaluation after just a few inspections, if we  
7 don't intend to renew that inspector's contract the  
8 following year.

9           Secondly, some inspectors, many of them  
10 farmers, or agricultural professionals, who  
11 conduct a few inspections a year for one ACA, do  
12 really excellent quality work, because of their  
13 experience.

14           This requirement offers a disincentive  
15 for working for these particular inspectors,  
16 because we would have to evaluate them every year,  
17 so low volume higher cost.

18           Finally, some inspectors do over 100  
19 inspections for one ACA and they might pick up one  
20 for OEFFA in a pinch, you know, maybe they're in  
21 a particular area, or we need a spot inspection,  
22 there are a number of reasons we might need to do

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1 that. Again, this requirement provides a  
2 disincentive for this sort of collaboration.

3 So we are so thankful that you've taken  
4 up this issue and we, we recommend, as you move  
5 forward, a risk-based model, so we can imagine a  
6 system within which every inspector is evaluated  
7 in the field, over a period of several years.

8 The second item we'd like NOSB to please  
9 consider is the conversion of native ecosystems to  
10 organic crop production, a topic that was  
11 previously raised by our colleagues at the Wild  
12 Farm Alliance.

13 While we support the continued growth  
14 of the organic industry and the expansion of  
15 organic acreage, we do not support growth at any  
16 cost.

17 Organic growth should not be at the cost  
18 of native ecosystems. We have faith that the NOSB  
19 is equipped to find a viable solution to this  
20 challenge in partnership with the organic  
21 community. Please consider adding this issue to  
22 the work agenda. Thank you.

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1 CHAIR FAVRE: Thank you. Any  
2 questions? Scott.

3 MEMBER RICE: Thanks, Julia. I  
4 wonder, if you could speak to any cost savings, by  
5 working with a program, such as the one that IOIA  
6 put together for some of the other work that  
7 certifiers are doing to collaborate on sharing  
8 reports and, maybe, some of the logistics involved  
9 in that?

10 MS. BARTON: I don't have the numbers  
11 on the cost savings for participating in the IOIA  
12 Program, but I can tell you that we did participate  
13 in that program last year.

14 We thought it was a really great  
15 collaborative effort lead by IOIA and I think nine  
16 of our, about 30 inspectors were evaluated through  
17 that program, for the 2015 production season. So  
18 we were happy to participate with that and  
19 collaborate with other, you know, ACA folks in  
20 considering the options for this issue.

21 We agree with the common set Pat shared  
22 earlier, Pat Kane, of the ACA, shared earlier, in

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1 stating that, that we're not sure what the problem  
2 was that this was meant to address.

3 We were, initially, really excited  
4 about the concept of inspector evaluations and,  
5 kind of, jumped in and tried to figure out a way  
6 to make it happen, but what we're finding is that  
7 the data that we're receiving, as a result of the  
8 evaluations we're conducting every year, is not so  
9 different from the feedback that we received  
10 before.

11 We also have multiple ways of gathering  
12 that feedback. So I think a number of ACAs do  
13 this, not just OEFFA, but we, we every producer,  
14 after their inspection, has the opportunity to then  
15 share feedback about how that inspection went for  
16 them and what they thought of the job.

17 Also, our staff reviewers conduct those  
18 evaluations on the reports that they receive back,  
19 so we have a number of ways of, kind of, gathering  
20 data about that, in addition to the field  
21 evaluations, which we think are very important.

22 CHAIR FAVRE: Harold.

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1                   MEMBER AUSTIN:   Have you looked at what  
2                   solutions and alternatives could be moved forward  
3                   that could take, enable you to continue to look at  
4                   using the producers, the growers out in the field,  
5                   as those certifiers, even though they're not, you  
6                   know, as an inspector, even though they're not able  
7                   to take and do the heavy workload that a full-time  
8                   inspector could do, have you guys looked at what  
9                   other options might be out there?

10                   Because it seems like that's a pretty  
11                   valuable resource to just simply turn our back and  
12                   walk away from, so I mean, I'm wondering if there  
13                   could be some suggestions put forth that could help  
14                   us, as we work on some of these issues, as well?

15                   MS. BARTON:    Sure.    Thank you for  
16                   bringing that up.   I do think that the producer  
17                   inspectors are folks with that strong production  
18                   background are probably our very best inspectors.  
19                   We, actually, were just talking about that, over  
20                   lunch.

21                   And that is a challenge, because that  
22                   low volume, but they need to have those evaluations

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1 each year, under the current requirement.

2 I think the idea that Scott raised about  
3 participating with IOIA's, sort of, collaborative  
4 efforts is a good one and IOIA tends to think really  
5 collaboratively, so we love partnering with them.

6 I think there are, probably, other  
7 options out there. I think, what would be a better  
8 fit for us would be a little bit of a more flexible  
9 requirement that we could then, kind of, use that  
10 risk-based model to assess what we think needs to  
11 be done.

12 We are given that leeway in a lot of  
13 other aspects of our work and I think we do a good  
14 job to, to meet a high standard in that, so I think  
15 we'd appreciate having it in this, in this  
16 particular shoe, as well.

17 CHAIR FAVRE: Jean and then, Harriet.

18 MEMBER RICHARDSON: Do you think it  
19 would be reasonable to have each certifier agency  
20 come up with a, sort of, a plan, as to how they would  
21 over, say that, well, the NOSB had suggested,  
22 originally, in 2010, was a three-year period,

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1       could, do you think it's reasonable for us to ask,  
2       base, get the data from them, say, you know, we have  
3       x-number of inspectors, we would propose to do an  
4       infield evaluation of so many each year, would that  
5       be a reasonable thing to get?

6                Because one of the things I notice is  
7       that we don't actually don't know how many  
8       inspectors there are, because they're not all  
9       members of IOIA.

10               MS. BARTON:  Sure.

11               (Off microphone comment.)

12               MS. BARTON:  Yes, thank you for that.  
13       I think, I don't want to speak for other ACAs, but  
14       I can tell you that we already did that plan when  
15       you offered the recommendations, so we did that on  
16       paper a long time ago, and then, the recommendation  
17       from NOP, or the requirement from NOP was a little  
18       bit different, so then we had to go back and revisit  
19       that.

20               I suspect, knowing other ACAs that  
21       they, also have done those plans for themselves and  
22       thought through this.  We tend to have to do a lot

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1 of that in this type of work, so I think we are  
2 pretty good at that sort of thinking. I can tell  
3 you for sure that OEFFA would be happy to provide  
4 you with that information.

5 CHAIR FAVRE: Harriet.

6 MEMBER BEHAR: Two things. Hi, Julia.  
7 I just wanted to encourage the ACAs to really work  
8 together, because so many inspectors work for  
9 multiple agencies and work with IOIA to have that  
10 evaluation really be consistent between agencies,  
11 and so then, also, you will feel confident in  
12 sharing the evaluations with others and they would  
13 feel confident that those questions and the  
14 evaluation methods were some that they, that they  
15 trust and that they feel meet their requirements.

16 And the second thing about the high  
17 value ecosystem transition to organic, thank you  
18 for bringing that up. And I'm just wondering, a  
19 lot of times we think about this, perhaps, this is  
20 overseas and this is not necessarily here in the  
21 United States, but in Ohio are there areas that you  
22 feel that are being endangered to being

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1 transitioned to organic that really should have  
2 been remained, you know, in their pristine  
3 high-value ecosystem?

4 MS. BARTON: That's a really good  
5 question. I think, this came up a little bit  
6 yesterday at the NOC pre-NOSB meeting and the  
7 conversation about new farmers and farmers  
8 transitioning to organic and their choices about  
9 whether to certify or not, and one of the barriers  
10 that we know is there and that type of situation  
11 is being able to have access to land that has not  
12 previously had a prohibited substance applied to  
13 it, recently, so we can hit the ground running, as  
14 a certified operator.

15 We know that that makes a big difference  
16 in direct marketing, so you don't have a changing  
17 personality on transitional, oh no I'm organic, oh  
18 but I'm transitioning additional land, but this  
19 stuff is organic, but this stuff isn't, and that  
20 becomes, you know, tricky conversation to have in  
21 any, any selling situation, but, maybe, even a  
22 little bit easier in a direct market situation, but

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1 still difficult.

2 So I think the risk there is very high  
3 for native ecosystems that are very valuable to be  
4 converted. I don't have data on, or, or even less  
5 specific example that I can give you, right off the  
6 top of my head, but I know it's happening and it's  
7 happening, because we incentivize it. So we have  
8 power to change that. Well, you all do.

9 CHAIR FAVRE: Thank you, Julia.

10 MS. BARTON: Thank you for your work.

11 CHAIR FAVRE: Next up is Patty Lovera,  
12 and she'll be our last commenter, before we take  
13 a break.

14 MS. LOVERA: All right. Hi, my name's  
15 Patty Lovera. I'm the Assistant Director of Food  
16 and Water Watch and we're a national non-profit  
17 advocacy organization and we're also a member of  
18 the National Organic Coalition.

19 So I'm going to try to hit a bunch of  
20 topics and then you all can take a break. So first,  
21 a lot of folks are putting in comments and I know  
22 there will be more discussion tomorrow on excluded

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1 methods, but I also just wanted to echo that we  
2 think that the CODEX definition not the Cartagena  
3 Protocol is the way to go.

4 And just a couple of other points I  
5 wanted to emphasize. On that excluded methods  
6 conversation is the need to really be very clear  
7 about synthetic biology, it is something that's  
8 emerging and it needs to have some hands wrapped  
9 around it and really be drawn out in that  
10 definition.

11 And also, just emphasis, some emphasis  
12 on organisms, in addition to plants, we're now  
13 talking about genetically engineered food,  
14 animals, insects, and in lots of places in the  
15 document I think we could add some, and animals,  
16 or, and other organisms, in addition to other  
17 places where it said plants, and just to put this  
18 into the context we're dealing with more broadly.

19 I mean, the whole federal government is  
20 trying to redo the coordinative framework for how  
21 we deal with biotechnology. We are living through  
22 some of examples of that framework not working when

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1 it comes to things like genetically engineered  
2 insects.

3 You know, one company seen technology  
4 two different agencies, depending on the insect.  
5 I mean, there's a lot of need to figure this out,  
6 and so that, to me, indicates a need for the NOSB  
7 to have a more regular process to update these  
8 definitions, because the technologies are changing  
9 and they're changing pretty quickly.

10 Really quickly, on several materials.  
11 We support the position on carrageenan not to be  
12 re-listed for the reasons that Charlotte laid out  
13 so clearly, in terms of making a precautionary  
14 choice, we think that is to not allow carrageenan  
15 to be re-listed.

16 And then, there are several items on  
17 your agenda for this meeting that really boil down  
18 to transparency for us and for our members, so for  
19 nutrient vitamins and minerals, the need to list  
20 them individually and review them individually we  
21 think is a transparency issue, similarly for inerts  
22 that each one gets looked at and they get a full

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1 review, and then, also, on ancillary substances,  
2 they need to individually review them to get to the  
3 criteria.

4 And then, the final material I'll add  
5 is that I agree with the proposal not to allow the  
6 use of ash from manure burning, because it really  
7 props up the factory farming industry.

8 And then, finally, on fracking, I was  
9 glad to follow some folks from Ohio, who are living  
10 through what the oil and gas industry has the  
11 potential to do to lots of rural areas, but also  
12 other areas, and organic has to be a community  
13 that's willing to talk about that and talk about  
14 what's at risk, the soil and water that we use to  
15 grow clean food is at risk.

16 But, I also think, specifically, for  
17 the NOSB, this is a conversation about inputs and  
18 what it means to have inputs that are acceptable  
19 for organic, and I think we're not going to be able  
20 to avoid, for very much longer, the conversation  
21 about water, as an input, and what it means when  
22 you're looking at the water you're using to

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1 irrigate crops. We've had examples already from  
2 traditional oil drilling and I'm afraid we're going  
3 to have more examples soon, because of fracking.  
4 So thank you.

5 CHAIR FAVRE: Thank you, Patty. Any  
6 questions for her?

7 (No response.)

8 CHAIR FAVRE: Thank you very much.

9 MS. LOVERA: Okay, thank you.

10 CHAIR FAVRE: Okay, folks, we're right  
11 on schedule, right now, so we're going to take a  
12 15-minute break and have everybody reconvene here  
13 back at 4:15 p.m. Thank you.

14 (Whereupon, the above-entitled matter  
15 went off the record at 3:59 p.m. and resumed at 4:16  
16 p.m.)

17 CHAIR FAVRE: Okay. I'd like the  
18 Board Members to take their seats so we can started  
19 back please. If you're in the room, Board Members  
20 please take your seats. Those of you out in the  
21 hallway, if you'll let folks know we're going to  
22 get started back again.

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1 First up in our commenters after the  
2 break is Patrick Kerrigan. And we have Terry  
3 Shistar on deck.

4 MR. KERRIGAN: Good afternoon.  
5 Organic Consumers Association once again calls on  
6 the NOSB to delist carrageenan as an unnecessary  
7 and unhealthy ingredient for consumers of  
8 processed foods.

9 Since its initial approval in 1995,  
10 carrageenan has subsequently been reapproved by  
11 the NOSB with every five year sunset review while  
12 debating for decades about whether or not food  
13 grade carrageenan degrades when ingested.

14 It behooves the NOSB to acknowledge the  
15 ensuing result, that of all the suspect substances  
16 that have been and are being relisted, carrageenan  
17 has become the poster product for the eroding trust  
18 of organic consumers and the integrity of organic  
19 foods because of synthetic substances being  
20 continuously relisted.

21 And this is something that's well known  
22 as far as the health concerns. POLITICO Pro

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1 Agriculture's lead article this morning, the headline  
2 was Carrageenan Organic Battle Continues.

3 At this meeting, you have the golden  
4 opportunity to rebuild consumer trust in both the gold  
5 standard, that is the USDA Organic Seal, and to  
6 rebuild the damaged consumer confidence in NOSB's  
7 relisting of suspect synthetic substances by voting  
8 to delist carrageenan.

9 As at the 2012 Albuquerque NOSB meeting,  
10 the primary considerations before the NOSB is whether  
11 the use of carrageenan by organic food processors is  
12 indeed essential. And whether the unknown  
13 inflammation, cancer, and intestinal ulceration  
14 dangers of low molecular degraded carrageenan can  
15 result when contaminated food grade high molecular  
16 carrageenan is ingested.

17 Regarding essentiality, organic brands  
18 including White Wave and Stonyfield have substituted  
19 other ingredients including guar gum and locust bean  
20 gum for carrageenan in response to organic consumer  
21 backlash. Other companies included the message  
22 shake well on their packaging.

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1           Does the NOSB really believe that  
2 consumers would rather have such a controversial  
3 ingredient as carrageenan added to an organic product  
4 so that they don't have to shake it?

5           Regarding the safety aspect, what is  
6 clear is that under the NOSB's own previous  
7 determination, that food grade carrageenan is safe if  
8 and only if processors can guarantee that it will not  
9 degrade to low molecular poligeenan.

10           Inflammation, cancer, and ulceration of  
11 the colon concerns with carrageenan go back to the  
12 1960s when it was found that food grade carrageenan  
13 contributes to the ulcerative colitis-like disease in  
14 guinea pigs.

15           When the European Commission's  
16 Scientific Committee on Food reviewed safety data on  
17 carrageenan, they concluded that food grade  
18 carrageenan is not safe unless the amount of degraded  
19 carrageenan is cut to a minimum which they suggested  
20 at levels below five percent.

21           As Cornucopia Institute noted, this  
22 decision prompted the laboratory testing of food

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1 grade carrageenan by the industry, which revealed  
2 that no food grade carrageenan sample could  
3 confidently be shown to be free from degraded  
4 carrageenan at concentrations below five percent.

5           Could I just say my final closing comment?  
6 Finally, the PPM's a critically important process for  
7 ensuring the statutory authority vested in the NOSB  
8 by the OFPA. With so much at stake, more time is  
9 needed for public comments. Please table it for this  
10 meeting.

11           Thank you for your consideration. And  
12 thank you for your time. I know it's a huge job, so  
13 we really appreciate your volunteering. Thanks.

14           CHAIR FAVRE: Thank you. Questions for  
15 Patrick? Okay. Thank you very much. Next up is  
16 Terry Shistar followed by Henry Dao on deck.

17           DR. SHISTAR: Okay. My name is Terry  
18 Shistar and I'm on the Board of Directors of Beyond  
19 Pesticides. We have a long history of involvement  
20 with organic production. And these are a few of our  
21 current and former Board Members.

22           We have submitted comments on all of the

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1 issues before the Board at this meeting. My comments  
2 today summarize a few of the issues, starting with  
3 so-called inert ingredients.

4 The NOSB must conduct a real sunset review  
5 of List 3 inerts. The Board previously identified  
6 those used in organic production and recommended that  
7 their use expire on December 31, 2015. Respecting  
8 that vote, as the NOP did not, the NOSB should vote  
9 to delist them.

10 NPEs can and should be replaced as soon  
11 as possible with safer alternatives. The NOSB must  
12 ensure that the fall of 2015 recommendation on the  
13 inerts annotation is implemented in a way that ensures  
14 NOSB control at the initial review and future sunset  
15 review of the chemicals.

16 The NOSB should delay recommending the  
17 addition of more sanitizers until it performs a  
18 thorough review of all sanitizers, disinfectants, and  
19 their uses, one that determines needs for sanitizers  
20 in organic production and handling and compares the  
21 safety and effectiveness of the available materials  
22 with an eye to eliminating chlorine-based and other

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1 hazardous materials.

2           The review of hypochlorous acid must take  
3 into account the sodium hydroxide and hydrogen that  
4 are co-generated with it. SDBS is on EPA's safer  
5 chemical ingredients list but again, should be part  
6 of a comprehensive review.

7           The process for reviewing ancillary  
8 substances must require them to be evaluated relative  
9 to OFPA criteria and approved for specific uses.

10           Added vitamins and minerals, synthetic or  
11 non-synthetic, should not be permitted in products  
12 labeled organic unless required by law. Consumers  
13 expect that organic food contains a complete  
14 compliment of nutrients based on organic agricultural  
15 protection practices, not supplementation.

16           Carrageenan does not meet OFPA criteria.  
17 And due to consumer concerns, it has been removed from  
18 many organic products. And every organic product  
19 containing carrageenan is available without it.

20           Since the intention of the NOSB in  
21 approving fenbendazole was to allow for the removal  
22 of ivermectin and possibly moxidectin, parasiticides

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1 should be referred back to the subcommittee to return  
2 with options that address the full range of actions  
3 supported by the available evidence. Jay is going to  
4 address the PPM.

5 We prefer a sunset date reorganization  
6 that groups materials in functional classes. But our  
7 main message is just do it. Thank you.

8 CHAIR FAVRE: Great slide transition  
9 there at the end. Questions for Terry? Ashley?

10 MEMBER SWAFFAR: Terry, I just want to  
11 say one thing. I loved your comment about the sunset  
12 reorganization where you suggested we just lock  
13 everybody in a room until we all decide. And those  
14 of us who lived through sunset 17 agree with you.

15 DR. SHISTAR: Yes, I lived through it  
16 too.

17 CHAIR FAVRE: Any others? Jean?

18 DR. SHISTAR: Hi Jean.

19 MEMBER RICHARDSON: Back to your comment  
20 on the parasiticide thing, I'm hoping that I'm going  
21 to be able to address that when I give the presentation  
22 on how we're going to approach it. One of the ways

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1 is that we are looking to petition for the removal of  
2 ivermectin. But as a separate item, not all part and  
3 parcel, as soon as we can see the way clear. And I'll  
4 be able to explain that better on Tuesday when we do  
5 that presentation.

6 DR. SHISTAR: Okay. Thank you.

7 MEMBER RICHARDSON: Thanks.

8 CHAIR FAVRE: Harold?

9 MEMBER AUSTIN: Terry, how would you  
10 advise us to move forward with sodium  
11 dodecylbenzenesulfonate at this juncture?

12 DR. SHISTAR: You know, that's an  
13 interesting one that I had mixed feelings about.  
14 Because when I looked into it and found that it was  
15 on the safer chemical ingredients list which is where  
16 I've recommended you look for alternative sanitizers,  
17 I found -- well there's one problem.

18 And that was that it appears that not all  
19 the data is complete. There's a study missing on  
20 acute eye irritation or something like that. But the  
21 main thing is that I think that the NOSB needs to  
22 address all the sanitizers together to really -- and

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1 somebody else brought this up earlier, to really look  
2 at what the needs are.

3 We keep getting references to, well this  
4 required by law. The review of the nutrient vitamins  
5 and minerals looked at the what the laws actually said  
6 for different things.

7 And I think that something similar needs  
8 to be done for the sanitizers and disinfectants. We  
9 need to know what the legal requirements are. And  
10 also what the efficacy requirements are.

11 CHAIR FAVRE: Thank you. Okay. Next up  
12 is Henry Dao with Keith Kandt on deck.

13 MR. DAO: Good afternoon ladies,  
14 gentlemen, and members of the NOSB Board Members.  
15 Thanks for the opportunity to provide comments. I'm  
16 Henry Dao from HSP USA. We've been serving our  
17 customers for over 20 years in food safety and  
18 healthcare. My day started at 3:00 a.m. this morning  
19 from Philly. So I hope I make sense here.

20 So we support adding hypochlorous acid  
21 without any limitation to the National List under  
22 chlorine materials for all three categories. From a

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1 scientific standpoint, hypochlorous acid is a  
2 well-known antimicrobial substance. And it's one of  
3 the many substances in electrolyzed water.  
4 Electrolyzed water is not a substance but a production  
5 method.

6 So hypochlorous acid is also formed when  
7 hypochloride is added to water. For example, you do  
8 that for a swimming pool. So ever since hypochlorous  
9 is used, hypochlorous acid has been around. So it's  
10 not really a new substance. And hypochloride is  
11 already approved on the National List.

12 And from a policy standpoint, there's no  
13 difference in hypochlorous acid as a substance when  
14 it's generated by different methods. And none of the  
15 other substances current on the List is tied to any  
16 production methods. For example, chlorine dioxide,  
17 even including sodium hypochloride, peracetic acid,  
18 so none of them have been tied to any methods. So we  
19 felt that neither should hypochlorous acid be.

20 And from a substantial evidence  
21 standpoint, hypochlorous acid is proven to be a safe  
22 substance. There are many scientific literatures

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1 that you can cite that proves it's safe, effective.

2 From our standpoint, our hypochlorous  
3 acid product is approved as a food contact substance.  
4 So it has a food contact notification by the FDA,  
5 Number 1176, and is also reviewed by USDA.

6 So in conclusion, we request NOSB to make  
7 decisions based on the sound science around  
8 hypochlorous acid as a substance. And consistency in  
9 rules, meaning that other products don't have any  
10 methods tied to it. And based on the substantial  
11 evidence already available for safety and  
12 effectiveness. Thank you.

13 CHAIR FAVRE: Tom?

14 VICE CHAIR CHAPMAN: You made a statement  
15 that other substances on the National List don't have  
16 production methods tied to them. Maybe not on the  
17 sanitizers category, but there are several substances  
18 that we do limit the way it's manufactured. Calcium  
19 sulfite has an annotation that says mined. So it's  
20 only from mined sources how it's made.

21 And there are numerous other examples. I  
22 could give you more if I need to. But I can think of

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1 four or five off the top of my head. So given that,  
2 our committees has only reviewed the electrolyzed  
3 water form of manufacturing it.

4 And that our criteria are more than just  
5 safety. It's environmental health, compatibility  
6 with organic handling systems and production systems.  
7 Would it be prudent for us to just add this to the List  
8 at this time without further review?

9 MR. DAO: Well we believe that you should  
10 focus on the substance itself. I think electrolyzed  
11 water is not a substance. It's actually a mixture of  
12 things including hydrogen peroxide, for example.  
13 There's many species of oxidants within that  
14 electrolyzed water.

15 So we want recommend that you focus on the  
16 substance itself, which is proven to be safe and  
17 effective. And not just calling it electrolyzed  
18 water because it could be generated many different  
19 ways. Like you said, it is -- or we focus on  
20 antimicrobials space. So for example, chlorine  
21 dioxide could be generated including electrolytic  
22 technology.

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1                   VICE CHAIR CHAPMAN: Yes. I guess my  
2 point was saying that when we add substances, we  
3 evaluate numerous ways of producing it depending on  
4 the way it was petitioned. This one was petitioned  
5 to us as electrolyzed water, hydrochlorous acid  
6 generated via electrolyzed water.

7                   And so we did not expand that review to  
8 all these other manufacturing methods. Often times  
9 when we do expand our view to other manufacturing  
10 methods, we choose to narrow the scope of what's  
11 allowed.

12                   I'm not saying that we would not, if we  
13 had a wider view, not accept this method of producing  
14 hypochlorous acid. But without reviewing it, I don't  
15 know if it's prudent for us to add it at this time.

16                   MR. DAO: Right. I mean our view is, we  
17 review on the substance, right? So I think, I don't  
18 know how the other substance are reviewed. But this  
19 jumps out that it is somewhat tied to a method. Maybe  
20 people are not aware of other methods. Because if you  
21 look at chlorine dioxide, there are many methods of  
22 generating that including electrolytic technology.

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1 I don't know if that substance, when it  
2 was petitioned, was reviewed, the production methods,  
3 all the various production methods were reviewed as  
4 well. So from a consistency standpoint, we felt that  
5 we fall in the same category.

6 VICE CHAIR CHAPMAN: It depends on how  
7 it's petitioned in that case. But I'll stop with the  
8 back and forth.

9 CHAIR FAVRE: Thank you. Any other  
10 questions for him? Francis?

11 MEMBER THICKE: I'm not real clear.  
12 You're suggesting that you can -- you make it in  
13 another process? And is it stable? And is it at the  
14 same concentration of pH that --

15 MR. DAO: Actually, yes. To answer your  
16 question, we manufacture hypochlorous acid in a much  
17 purer form than what's being made available by  
18 electrolyzed water. Because electrolyzed water, it  
19 is a cocktail of oxidants depending on the pH and  
20 everything. So it includes many different species of  
21 oxidants.

22 Like the speaker prior to me suggested,

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1 hydrogen peroxide is in there. And sodium hydroxide  
2 is also in there.

3 MEMBER THICKE: Okay. And is it, the  
4 manufacturing method you're talking about, is it a  
5 neutral? What pH are you suggesting it would be at?

6 MR. DAO: Near neutral, yes.

7 MEMBER THICKE: It would be at neutral?

8 MR. DAO: Yes, 6.8, 6.5. It's nothing  
9 different from a characteristic standpoint. It's  
10 hypochlorous acid. It's a weak acid --

11 MEMBER THICKE: Right.

12 MR. DAO: -- existing in a solution form.  
13 And it's very common in the industry that you use some  
14 kind of food grade acid to adjust pH when you add  
15 hypochloride to water to increase the amount of  
16 hypochlorous acid to make it more effective.

17 MEMBER THICKE: Well the technical  
18 reviews seemed to indicate that it will decay back to  
19 sodium chloride in water, dissipate spontaneously  
20 over a short time. But you're saying that you keep  
21 it in a stable form.

22 MR. DAO: Yes.

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1                   MEMBER THICKE:    And do you use other  
2 chemicals to keep it in a stable form?

3                   MR. DAO:    Well like I said, there's many  
4 methods for it.    And then there's one common method  
5 in the industry is adding food grade acid to, really  
6 for a pH adjustment.    And it's like citric acid, for  
7 example, acetic acid, like vinegar.    And it's very  
8 common practice actually to do that.    And it is widely  
9 used in the food industry, as you know.

10                   And also, it could use carbon dioxide.  
11 As a common practice, you inject carbon dioxide as to  
12 lower the Ph.    So those are the methods that I just  
13 mentioned in addition to electrolyzed water.

14                   CHAIR FAVRE:    Harold?

15                   MEMBER AUSTIN:    Okay.    So in our review  
16 of the hypochlorous acid via the electrolyzed water  
17 formulation on site, the primary materials coming  
18 from both the cathode and the anode of the equipment  
19 itself is ultimately used.

20                   With your formulation, is there any  
21 byproducts that are part of the formulation process  
22 that's not used in the formulation of the hypochlorous

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1 acid?

2 MR. DAO: No, there's no byproducts like  
3 sodium hydroxide. But as an inner ingredient, it  
4 does have salt. So it's table salt inside, in the  
5 solution itself.

6 And to answer your question that some  
7 sodium hypochlorite could be generated by  
8 electrolytic technology as well. And by other  
9 methods, in terms of sodium hypochlorite. Just you  
10 know, since sodium hypochlorite is already on the  
11 list, and just drawing by analogy that, looking at the  
12 other materials, not all of them are tied to any  
13 methods.

14 CHAIR FAVRE: Thank you very much.

15 MR. DAO: Thank you.

16 CHAIR FAVRE: Next up is Keith Kandt  
17 followed by Laura MacCleery on deck.

18 MR. KANDT: Hi my name is Keith Kandt.  
19 I'm with NatureSweet Tomatoes. And I want to add my  
20 thanks to the others that you've heard for the time  
21 and effort that you're putting in to address a lot of  
22 I know pretty thorny and complex issues. So I

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1 appreciate that.

2           What I'd like to do is take a few minutes  
3 to outline what I think are some of the important  
4 reasons that we need to have the continued acceptance  
5 of containerized growing as a viable option and why  
6 that's an attractive idea.

7           Containerized growing, first of all, has  
8 a minimal impact on the environment. Care for the  
9 future of the planet is a core pillar of the organic  
10 philosophy. And I know that the farmers of field  
11 grown organic products are careful to minimize  
12 erosion, water usage, and fertilizer runoff among  
13 other things.

14           Yet we still know that erosion happens,  
15 water is wasted, fertilizer is lost even with the best  
16 of efforts. I ask you to consider containerized or  
17 greenhouse growing and the environmental impact of  
18 what we do. There is no runoff, zero soil erosion.

19           In fact, at NatureSweet, and similar to  
20 what a lot of other folks have said earlier, our water  
21 is recycled. Our fertilizer is recycled and absorbed  
22 back into the plants. Our water usage is typically

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1 about 80 to 90 percent less per pound than the water  
2 used for field growing.

3 And our yields are about eight times that  
4 of field grown tomatoes based on some data that the  
5 USDA has provided. Plus we can execute that  
6 containerized growing on a footprint of land that may  
7 be otherwise arid or practically unusable.

8 So what all this allows us to do as a  
9 people is to provide quality, safe produce to the nine  
10 billion people that we're going to have on this planet  
11 very soon. And that leaves us a lot of other land that  
12 we can maintain either untouched or for other uses or  
13 just to enjoy as beautiful, as it is.

14 Now of course, there are a significant  
15 number of significant sized companies that utilize  
16 greenhouse or containerized growing, and I'm happy to  
17 recognize that. But what I'd also ask you to  
18 recognize is that organic greenhouse growing or  
19 containerized growing is overwhelmingly done by very  
20 small farmers.

21 For every NatureSweet tomato out there,  
22 there is at least 100 or probably hundreds of small

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1 family farms that are trying to grow organic produce  
2 in greenhouses or in containers.

3 Also, I see no evidence of a consumer  
4 outcry on this issue. We've done a lot of research.  
5 And consumers' concerns are that it's safe, that it's  
6 available, and that it's flavorful. But there is  
7 really no angst out there about whether the organic  
8 produce comes from a greenhouse or from a field.

9 So just to leave it right there, I just  
10 hope you will agree that leaving greenhouse growing  
11 and containerized growing as a viable option as we  
12 move into the future is really the right thing to do.  
13 Thanks.

14 CHAIR FAVRE: Emily?

15 MEMBER OAKLEY: Got my new microphone  
16 that I can actually use. I was wondering if you could  
17 answer whether most of these operations are on cement  
18 pads? Because you spoke of soil erosion. And I'm  
19 wondering about the concern of covering the soil with  
20 cement.

21 MR. KANDT: I don't have any statistics  
22 that I can give you as to what percentage of them would

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1 be cement pads versus not. I can try to find some out  
2 and get some to you if that'd be helpful. Okay.

3 CHAIR FAVRE: Harold?

4 MEMBER AUSTIN: Compared to soil-based  
5 crop production, what would be the yield, the output  
6 on this system versus the equivalent on a soil-based?  
7 I mean are you able to grow multiple crops throughout  
8 the growing season because of this compared to a  
9 soil-based --

10 MR. KANDT: Yes, and I maybe wasn't  
11 clear. But our productivity over a year, for  
12 instance, is about eight times what field grown  
13 organics come back with. And that number, the base  
14 number for field grown organics is a number that was  
15 published by the USDA. So we did our calculation off  
16 of that.

17 CHAIR FAVRE: Thank you very much.

18 MR. KANDT: Okay. Thanks.

19 CHAIR FAVRE: Next up is Laura MacCleery  
20 followed by Deborah Klein on deck. Is Laura  
21 MacCleery here? Last call for Laura. Okay.  
22 Deborah, if you want to go ahead and join us.

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1 MS. KLEIN: Sure. Thank you very much.  
2 Good afternoon. I'm Deb Klein with Ecolab. And I  
3 wanted to say we can appreciate the many commenters  
4 here today wishing to preserve the integrity of  
5 organic, their healthy choices, and our planet.

6 I'm here to represent and to talk about  
7 food safety. The addition of SDBS to the organic  
8 processing and handling list will help small grocers,  
9 restaurants, food service, and kitchens have a safe  
10 washwater treatment to ensure dangerous foodborne  
11 pathogens are able to be rinsed off our organic  
12 fruits, vegetables, and produce and ensure the  
13 health, safety, and integrity of our organic food  
14 supply. We must be vigilant that organic product not  
15 be the source of foodborne outbreaks.

16 In these few minutes, I hope to provide  
17 the subcommittee and others here today with a frame  
18 of reference and address the committee's questions  
19 for this processing aid.

20 SDBS is a critical synthetic needed in our  
21 restricted toolbox as an alternative to the few  
22 chlorine-based products such as sodium hypochlorite

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1 in the market today. Other approved products on the  
2 National List such as acidified sodium chlorite,  
3 peroxyacetic acid are suitable for the large  
4 processors. But they're not convenient or practical  
5 for small processors.

6 Retailers need alternatives to address  
7 spoilage organisms and pathogens present during their  
8 rinsing and prepping of produce for sandwiches and our  
9 salads. SDBS is proven effective to protect public  
10 health.

11 It's an active and a surfactant to boost  
12 the efficacy of lactic acid. It performs better in  
13 the presence of high organic loading than other  
14 synthetics such as sodium hypochlorite or chlorine.

15 Chlorine presents a couple of challenges  
16 to food safety. It's difficult to control and  
17 maintain the proper concentration. It's easily  
18 overcome by organic matter. And some systems require  
19 complex equipment to generate the hypochlorous acid  
20 which makes it difficult and potentially unsafe for  
21 workers.

22 SDBS overcomes these challenges through

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1 its enhanced efficacy in the presence of high organic  
2 loading post-harvest. Its dispensing is automated,  
3 and it improves product quality, reducing the  
4 spoilage organisms via less trimming, waste, and  
5 discarded product going to the landfill. This  
6 improves organic yields and profits.

7 SDBS is manufactured to be suitable for  
8 food. Impurities of the Board's concern are  
9 addressed in modernized manufacturing practice to  
10 remove and eliminate these impurities of concern.  
11 SDBS presents no toxicity, residual, or persistent  
12 substances to the environment or human consumption.  
13 And it's been reviewed exhaustively by FDA and EPA  
14 with toxicological and environmental impact  
15 assessment.

16 We appreciate and support the need to  
17 protect the integrity and purity of organic product,  
18 but also balancing the need for food safety and  
19 ensuring the health and wellbeing of organic  
20 consumers, and urge the subcommittee to vote in favor  
21 of adding this valuable and essential tool for organic  
22 retailers and kitchens, at least until an alternative

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1 can found. That's my last comment. Any questions?

2 CHAIR FAVRE: Tom?

3 VICE CHAIR CHAPMAN: Can you help me  
4 understand why PAA is not available in smaller  
5 quantities? You spoke to restaurants and other  
6 retail establishments.

7 MS. KLEIN: Most of the PAA out on the  
8 market today and manufactured by the larger  
9 manufacturers, and there are 30 of them distributing  
10 them, they come in 50 gallon drums or 300 gallon totes.  
11 And they are in an automated system to dispense it.

12 But they're not available like in a two  
13 and a half gallon container or five gallon container  
14 or one gallon containers that are much more convenient  
15 for a retailer in the back of the kitchen.

16 VICE CHAIR CHAPMAN: Is there something  
17 about PAA that is like, that requires it in those  
18 bigger quantities? Or is that just the market  
19 situation?

20 MS. KLEIN: It's just the market  
21 situation. I mean there are PAAs like Victory and  
22 some of those. But they're like, in the European

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1 market, not in our North America market.

2 VICE CHAIR CHAPMAN: Thank you.

3 CHAIR FAVRE: Harold?

4 MEMBER AUSTIN: In one of the written  
5 responses back to us, it addressed one of our concerns  
6 about human health issues around this material and  
7 exposure. And one of the comments was that it was,  
8 at the point of use, it was such a minute amount. But  
9 our review is really not about the finished product,  
10 but really about sodium dodecylbenzenesulfonate.

11 MS. KLEIN: Right.

12 MEMBER AUSTIN: So my question to you  
13 then would be, human health concerns around that as  
14 far as any exposure to that material, not the finished  
15 material. What would be our concerns with that?

16 MS. KLEIN: You wouldn't have exposure to  
17 the direct concentrate because in most situations,  
18 it's going to be blended with something else like a  
19 lactic acid because it's more of a surfactant. It's  
20 not used in the wash water in and of itself  
21 necessarily.

22 But they wouldn't be handling the

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1 concentrate. It would be dispensed through an  
2 automatic dispenser. It's like not like you're going  
3 to measure out and pour it into the wash water in a  
4 sink.

5 So the -- that's one of the things is the  
6 workers wouldn't be exposed to that. So they  
7 wouldn't have that eye irritation or skin irritation.  
8 That's more with the concentrate in an MSDS.

9 MEMBER AUSTIN: What about at the point  
10 of manufacture as far as the combination of the two  
11 materials? Would there be any concerns there?

12 MS. KLEIN: Well they would be trained  
13 people who would be doing that. And it would be in  
14 a larger environment, like in Ecolab or like in  
15 Enviro-Tech or something like that, FMC. I mean I  
16 think we're one of the only manufacturers of it.

17 But it would be in a manufacturing  
18 facility that's controlled and has processes and  
19 proper PPE and those kinds of things. Nobody would  
20 be handling it that's not fully trained.

21 MEMBER AUSTIN: Follow-up, the material  
22 itself, SDBS, is it truly, does it have antimicrobial

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1 activity in this finished product? Or is it simply  
2 a non-ionic surfactant that's helping the lactic acid  
3 that it's combined with?

4 MS. KLEIN: It's both. It does boost the  
5 lactic acid. And it is an active, it is an active  
6 antimicrobial as well as provides a surfactant. I  
7 don't know if I'd call that a secondary benefit, but  
8 it's a co-benefit.

9 MEMBER AUSTIN: Okay. Thank you.

10 CHAIR FAVRE: Thank you very much.

11 MS. KLEIN: Thank you.

12 CHAIR FAVRE: Okay We've got Martin  
13 Gramckow, I'm not sure how to pronounce that, sorry,  
14 up next. And we've got Robert Rankin on deck please.

15 MR. GRAMCKOW: Hello honorable members  
16 of the National Organic Standards Board. My name is  
17 Martin Gramckow. Together with my brother, I own  
18 Southland Sod Farms. We are located in Southern  
19 California.

20 We grow a variety of crops including turf  
21 grass, tangerines, hay, blackberries, raspberries,  
22 and blueberries. I grow my berries organically. I

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1 grow them both in the soil and in containers.

2 In November of last year, we received a  
3 letter from our marketer that the CCOF would not be  
4 carrying organic container production into 2016. I  
5 had spent the previous four years personally learning  
6 the complexities of container production and had just  
7 invested a significant sum in an expansion to be  
8 certified this year.

9 While the CCOF has since reversed its  
10 position, that got my attention, and it initiated my  
11 involvement in this process. I've learned as a  
12 grower that each crop and each location has unique  
13 requirements.

14 Our organic blackberries are grown in a  
15 location where they thrive natively. The soil and  
16 climatic conditions are simply ideal. And little is  
17 needed with respect to soil amendments and climate  
18 amendment.

19 Our organic blueberries are a different  
20 story indeed. Blues grow naturally in well-drained,  
21 acidic soils which are not common in my area. Growing  
22 in a container allowed us to recreate the soil

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1 conditions needed for the natural biological  
2 processes to thrive in the root zone, producing now  
3 in a location that would otherwise be unsuitable.

4 Container production simply saves water.  
5 My container production consistently uses 50 percent  
6 less water than my own in ground production. And as  
7 you've heard here today, some indoor systems are  
8 reporting staggering 90 percent water savings. And  
9 sustainability, when viewed through the water savings  
10 optic, is simply undeniable.

11 Imagine that if the majority of  
12 California farmers adopted this method, we would not  
13 have a drought. Very soon, this Board will receive  
14 technical reports from the task force on the subject  
15 of containers, hydroponics, and aquaponics.

16 You will be faced with the task of  
17 assessing whether these systems meet the requirements  
18 of the organic certification. You have received and  
19 will likely continue to receive pressure from groups  
20 fighting against these methods. And I respectfully  
21 ask Members of this Board to maintain objectivity in  
22 the process of establishing new standards for these

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1 systems.

2 Identify your objectives first. Then  
3 develop the rules that allow growers flexibility in  
4 how to meet them. Be careful not to protect or limit  
5 systems. My view is that the job of the NOSB is to  
6 preserve the integrity of the organic program in the  
7 eyes of the consumer.

8 I thank you for your time. And if anyone  
9 has any questions --

10 CHAIR FAVRE: Carmela?

11 MEMBER BECK: Martin, you didn't get a  
12 chance -- you mentioned that you do both in ground and  
13 you do container production. Can you talk a little  
14 bit about the function or purpose of the media that  
15 you use?

16 MR. GRAMCKOW: So essentially the media  
17 in the container provides the exact same purpose that  
18 the soil does in the open field. It provides  
19 structure for the plant. It provides moisture and pH  
20 buffering. And it provides a location for the  
21 biology to thrive. Anything else?

22 CHAIR FAVRE: Any other questions?

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1 Thank you very much. Next up is Robert Rankin. And  
2 they we'll have Jane Shey on deck.

3 MR. RANKIN: Good afternoon. My name is  
4 Robert Rankin, and I am speaking on behalf of the  
5 Infant Nutrition Council of America. INCA is an  
6 association of manufacturers and marketers of  
7 formulated nutrition products whose member companies  
8 produce over 95 percent of the infant formula,  
9 including infant formulas marketed as organic in the  
10 U.S.

11 My comments focus on the Handling  
12 Subcommittee's proposed annotation change for  
13 vitamins and minerals and the sunset review of  
14 carrageenan.

15 INCA appreciates the Handling  
16 Subcommittee's efforts to propose options and  
17 annotations to address nutrient vitamins and  
18 minerals.

19 INCA and its member companies strongly  
20 believe that infants who are not breast fed receive  
21 an alternative that is both safe and efficacious.

22 The American Academy of Pediatrics, the

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1 U.S. Food and Drug Administration, and other experts  
2 agree infant formula is the only safe, recommended,  
3 and nutritious alternative to breast milk.

4           Organic infant formulas contain required  
5 essential nutrition while offering additional safe  
6 and beneficial ingredients that are provided in  
7 conventional products. We strongly believe that  
8 infants who consume organic infant formulas should  
9 receive the same safe and beneficial ingredients as  
10 those who consume conventional products.

11           We believe the National Organic Program  
12 has already begun addressing the listing of nutrient  
13 vitamins and minerals in organic food including  
14 infant formula through a 2012 proposed rule. This  
15 rule clearly outlines a process for determining the  
16 appropriate vitamins and minerals to be contained in  
17 organic foods and organic infant formulas.

18           If the NOSB wishes to recommend an  
19 annotation based on the discussion document, INCA  
20 supports a new annotation for infant formula that is  
21 similar to the proposed Annotation Number 4 and would  
22 also reference 21 CFR 101.9. Specific language

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1 incorporating this addition was submitted through our  
2 written comments, and I can provide it if needed.

3 Incorporating 21 CFR 101.9 into the  
4 annotation for infant formula would ensure all  
5 current and future vitamins and minerals identified  
6 as essential or required or permitted by the U.S. FDA  
7 to be used in organic infant formulas.

8 The INCA also reiterates our past support  
9 for retaining carrageenan on the National List.  
10 Carrageenan is a unique stabilizing substance which  
11 infant formula manufacturers to ensure components of  
12 their liquid products remain in suspension so the  
13 nutrients are delivered appropriately during  
14 feeding. The FDA has deemed carrageenan to be safe  
15 for consumption by infants and has a history of safe  
16 use.

17 Additionally, as noted in the NOSB  
18 meeting documents, the Joint FAO/WHO Expert Committee  
19 on Food Additives determined the use of carrageenan  
20 in infant formula and formulas for special medical  
21 purposes for infants does not present any safety  
22 concerns.

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1           As an international expert scientific  
2 committee that reviews the safety of food additives,  
3 INCA encourages the NOSB to consider this critical  
4 objective evaluation when making determinations on  
5 carrageenan safety and whether it should continue to  
6 be used in organic infant formula.

7           Removing carrageenan from the National  
8 List could negatively impact the availability of  
9 liquid organic infant formula products and reduce  
10 organic options available to consumers. Thank you  
11 for your consideration.

12           CHAIR FAVRE: Tom?

13           VICE CHAIR CHAPMAN: Do you know the  
14 percentage of organic liquid versus dry powder in  
15 infant formulas, like market share?

16           MR. RANKIN: I don't know the exact  
17 numbers. But I do know that, essentially, right now  
18 there is one manufacturer of liquid organic infant  
19 formula, and they use carrageenan. I have some other  
20 answers to some questions that were raised for other  
21 people in addition to this as well.

22           VICE CHAIR CHAPMAN: But you don't know

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1 the market share breakdown?

2 MR. RANKIN: I don't know the breakdown,  
3 no. I would say that I would assume powder outweighs  
4 liquid. But I don't know by how much.

5 CHAIR FAVRE: Harold?

6 MEMBER AUSTIN: Are you aware of any  
7 research being done around this topic? Since  
8 carrageenan was quite an interesting topic in the 2012  
9 review, so I mean, the fact that we're even having  
10 these conversations can't be coming as a surprise to  
11 anybody. Do you know of any research that's been  
12 undergoing to try to find a suitable replacement for  
13 carrageenan for this specific purpose?

14 MR. RANKIN: Well I think one would need  
15 to have a reason to replace it for those reasons. I  
16 think those who use carrageenan know that it is safe.  
17 It is determined to be safe by the relevant regulatory  
18 authorities.

19 JECFA just last year, or in their report  
20 of the last meeting, based on a recent study that was  
21 conducted after the 2010 review by this group to look  
22 specifically at some of the concerns that you all had

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1 about certain populations, that research was used by  
2 JECFA and included in their conclusion that it's safe  
3 for all populations including infants.

4 So I don't, unless there is a specific  
5 need to go and replace it, I don't know that there  
6 would be any research at this point to do that.

7 CHAIR FAVRE: I have a quick question for  
8 you. Besides food safety, we also look at things like  
9 necessity or essentiality. So can you speak to that  
10 in regards to infant formula?

11 MR. RANKIN: Sure. So for -- well are  
12 you talking about carrageenan? So carrageenan is a  
13 very unique substance, as some have said and more will  
14 say. It provides specific benefits in terms of how  
15 it functions with the nutrients in the ingredients to  
16 deliver the consistent optimal nutrition that infants  
17 need when they're consuming formula.

18 Currently, as carrageenan is, as far as  
19 I know, the only stabilizer that is approved for use  
20 in infant formula, any change by industry to  
21 reformulate a liquid organic infant formula product  
22 to contain something besides carrageenan would need

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1 to undergo FDA review as part of FDA's new formulation  
2 requirements.

3 So a company would need to identify an  
4 alternative. They would need to do their own testing  
5 on the alternative. They would need to submit that  
6 to FDA as part of a full infant formula review. FDA  
7 would need to review the safety of that ingredient.  
8 FDA would need to review the safety and the  
9 appropriateness of that formula.

10 And then, you know, assumedly if that goes  
11 forward, then the company could begin marketing that  
12 product. Does that answer your question?

13 CHAIR FAVRE: Not really.

14 MR. RANKIN: Okay.

15 CHAIR FAVRE: Sorry.

16 MR. RANKIN: Should -- you want to try  
17 again?

18 CHAIR FAVRE: Well that speaks to, sort  
19 of the fact that a company right now would have to  
20 undergo some pretty arduous machinations to come up  
21 with a new formulation. But that doesn't speak  
22 necessarily to the necessity of the ingredient in the

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1 product.

2 MR. RANKIN: Okay.

3 CHAIR FAVRE: It goes in the formulation.

4 MR. RANKIN: Okay. I can speak to that  
5 too. So as some have said, carrageenan helps  
6 stabilize ingredients in a product, in a liquid  
7 product. It's very important for infant formula.  
8 Infant formula, infants, that's basically, if you're  
9 receiving the infant formula, it's pretty much the  
10 sole source of nutrition. So that's all they're  
11 receiving.

12 So it's important that that nutrition is  
13 delivered appropriately. Obviously carrageenan  
14 helps stabilize the product, helps aid in the  
15 nutrition delivery.

16 There are some minerals, in my  
17 understanding, which if you don't have carrageenan,  
18 and it separates and they fall to the bottom, that they  
19 will not be able to be necessarily shaken back into  
20 suspension.

21 I think calcium is an example. We all  
22 know how important calcium is. It's my understanding

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1 if calcium -- if carrageenan is not in the product and  
2 the calcium sinks to the bottom for a long period of  
3 time, which these liquid infant formula products  
4 especially the ready to feeds, they're on the shelf  
5 for 12 to 15 months.

6 That calcium can form a precipitate at the  
7 bottom of the container. And if it's shaken up, it  
8 may not come back into suspension. Or it may not  
9 properly come back and stabilize as it would with  
10 carrageenan. It's just a very unique material for  
11 which not a lot of other products do the same thing.

12 CHAIR FAVRE: Yes, that's what I was  
13 hoping to get an answer to. Thank you. Tom, you had  
14 a question?

15 VICE CHAIR CHAPMAN: I may not phrase  
16 this correctly. So we may have to go back and forth  
17 real quick on it. But I get that it's essential to  
18 keep liquid formulas in suspension. Is there  
19 applications where liquid formula is necessary over  
20 a dry formula where it's not the market preference?

21 MR. RANKIN: It's a consumer preference.  
22 Some parents would rather not use water or have to buy

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1 bottled water or use tap water. There's all kinds of  
2 reasons. Convenience. My children, we used liquid  
3 formula sometimes when we were traveling just because  
4 it's a lot easier. It just provides some added  
5 conveniences, and it's an option.

6 VICE CHAIR CHAPMAN: So it's a  
7 convenience of market? There's no other, there are  
8 no medical reasons --

9 MR. RANKIN: Well --

10 VICE CHAIR CHAPMAN: -- socioeconomic  
11 reasons, no other --

12 MR. RANKIN: There are some conditions  
13 and some indications in the hospital, maybe in the  
14 NICU where you have a premature infant, where a  
15 healthcare provider would rather not a premature  
16 infant consume powder infant formula. Just because  
17 of mixing it and all the things that one needs to do  
18 to ensure that it's safely prepared.

19 So liquid infant formula would provide  
20 less steps in terms of preparing the product where you  
21 have an immunocompromised patient who depends on it.

22 VICE CHAIR CHAPMAN: Do you know if that

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1 one organic infant formula is approved for such uses?

2 MR. RANKIN: I would need to check on that  
3 and get back to you.

4 VICE CHAIR CHAPMAN: Thank you.

5 CHAIR FAVRE: Jean?

6 MEMVER RICHARDSON: So I'm not a big fan  
7 of adding synthetics to products, organic products,  
8 just to extend shelf life. So let's just set that one  
9 aside for a minute. Suppose I'm the grandma, and I've  
10 got to go out, and I get the liquid organic formula  
11 for the grandchild.

12 I shake it up really well and feed the kid.  
13 How long does it take for that then to separate so the  
14 infant isn't getting the full nutrition in one gulp?

15 MR. RANKIN: Right. I can't say that I  
16 have done research on how often one would have to  
17 continuously or repeatedly shake the bottle to make  
18 sure that it's not losing suspension. But I would say  
19 probably, based on my general estimate, one would  
20 probably need to shake it a couple times during a  
21 feeding to make sure.

22 And so then, if you have a container

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1 that's being used for multiple feedings, which those  
2 are available, that would need to be shaken in between  
3 feedings. It would need to be shaken repeatedly a  
4 number of times in between the feedings to ensure that  
5 it's not separating and doing the precipitation that  
6 I've mentioned before. So I think you would need to  
7 do it quite a few times.

8 MEMBER RICHARDSON: So it takes 15  
9 minutes to feed the three month old kid. So you're  
10 saying that I would need to shake it up every five  
11 minutes?

12 MR. RANKIN: I haven't done the research.  
13 There may be a manufacturer --

14 MEMBER RICHARDSON: Well I'm trying to  
15 get a sense of its essentiality.

16 MR. RANKIN: I understand. And there  
17 may be a manufacturer who knows this answer. I don't  
18 know the answer, the specific answer. But I do  
19 believe you would need to shake it.

20 CHAIR FAVRE: Okay. Francis first and  
21 then Lisa.

22 MEMBER THICKE: What did they do before

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1 carrageenan came on? And how long has carrageenan  
2 been in baby, in infant formulas?

3 MR. RANKIN: There are others in this  
4 room probably who would be able to answer that better  
5 than I. Carrageenan has been used for years,  
6 decades. It provides specific properties that allow  
7 the product to remain in suspension as long as  
8 possible.

9 Before carrageenan, there were other --  
10 and this predates me. So I don't even know if there  
11 was liquid product before carrageenan. I assume not.  
12 I assume carrageenan allowed liquid product to be  
13 used. So I don't know that there was anything used  
14 before that.

15 CHAIR FAVRE: Lisa?

16 MEMBER DE LIMA: So help me understand.  
17 With the powdered form that doesn't use carrageenan,  
18 people aren't having to shake that every x amount of  
19 minutes. So why is that different than the liquid  
20 form?

21 MR. RANKIN: Because when you make the  
22 product, and then you dry it, or if you make it, and

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1 it's dried as you make it, everything is very evenly  
2 distributed. And when you add the water, and you  
3 reconstitute it, it more evenly distributes.

4 When it's already liquid and it's in  
5 suspension, it's much more difficult for it to be kept  
6 that way. And the powder is not sitting on the shelf  
7 for 12 or 15 months in that suspension. It's just,  
8 you're mixing it right away, and it's more freshly  
9 prepared.

10 CHAIR FAVRE: Thank you very much.

11 MR. RANKIN: You're welcome. Can I make  
12 one comment about a previous question to another  
13 commenter?

14 CHAIR FAVRE: Sure, quickly please.

15 MR. RANKIN: There was a question about  
16 the use of carrageenan in another manufacturer's  
17 product. I don't believe that manufacturer -- I  
18 think you all know this, but that manufacturer does  
19 not produce any liquid organic formula products. So  
20 they wouldn't need to use carrageenan.

21 CHAIR FAVRE: Okay. Thank you very  
22 much.

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1 MR. RANKIN: Thank you very much.

2 CHAIR FAVRE: Okay. Next up is Jane Shey  
3 followed by Gwendolyn Wyard.

4 MS. SHEY: Good afternoon. My name is  
5 Jane Shey, and I'm a Policy Associate for the Organic  
6 Farming Research Foundation, a national non-profit.  
7 The Organic Farming Research Foundation works to  
8 foster the improvement and widespread adoption of  
9 organic farming systems.

10 OFRF cultivates research, education,  
11 organic research, education, and federal policies  
12 that bring more farmers and acreage into organic  
13 production. We recognize that research is only one  
14 of many topics under the jurisdiction of the NOSB.

15 We believe research is a foundation upon  
16 which Board decisions are made from use of materials  
17 to biotechnology to crops and livestock. Research  
18 informs and guides most of the issues faced by our  
19 farmers and the organic industry.

20 One year ago, NOSB submitted a list of  
21 research priorities that would support the organic  
22 community. Priorities on this list include, but are

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1 not limited to, plant disease management, soil  
2 building practices, seed purity from GMO, research  
3 needs, and several livestock topics.

4 OFRF is in the process of finalizing a  
5 national organic research agenda survey with more  
6 than 1,000 farmers from across the U.S.  
7 participating. The needs of these farmers and  
8 ranchers matches the research goals identified by  
9 NOSB.

10 OFRF is in the process of finalizing the  
11 report, which should be released soon. And a copy  
12 will be provided to the NOSB Members. And attached  
13 to my testimony is a summary of the priorities for  
14 research, including education and extension  
15 activities.

16 The top five priorities are soil health,  
17 quality, and nutrient management at 74.5 percent;  
18 weed management, 67 percent; fertility management, 66  
19 percent; nutritional quality, health benefits, and  
20 integrity of organic food, 55 percent; insect  
21 management, 51 percent.

22 With the goal of enhancing the economic,

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1 environmental, and societal sustainability of  
2 organic farming and ranching, OFRF would like to  
3 highlight the following research priorities based on  
4 the Norris Survey:

5 Soil health and basic practices for  
6 coping with climate variability; increased research  
7 in organic insect pest control especially for new,  
8 invasive insect pests; greater investment in animal  
9 production especially minor species such as sheep,  
10 pigs, and bees. Organic seed and seedling production  
11 is another area that merits greater research  
12 attention.

13 We want to thank the NOSB for their work  
14 in recent years to develop research recommendations.  
15 We do encourage NOSB to work to identify research  
16 needs prior to consideration of NOSB recommendations  
17 so that research can provide -- can better inform  
18 policy decisions or help growers adapt more quickly  
19 to changing regulations.

20 OFRF is committed with the NOSB and USDA  
21 as a partner to represent the needs of the organic  
22 research community and organic farmers.

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1 CHAIR FAVRE: Thank you. Any questions?  
2 Jean?

3 MEMBER RICHARDSON: Just a real quick  
4 one, I probably should have read them. Did you submit  
5 these already in writing?

6 MS. SHEY: Yes ma'am, we did.

7 MEMBER RICHARDSON: Okay. Thank you.

8 CHAIR FAVRE: We are actually going to be  
9 working on this this summer. So it's good timing.  
10 Thank you very much.

11 MS. SHEY: Okay. Thank you.

12 CHAIR FAVRE: I'm sorry. Hold on, don't  
13 leave. Francis?

14 MEMBER THICKE: Well I just wanted to  
15 make a comment to clarify that we appreciate your  
16 research priorities. The NOSB -- people should know  
17 that the NOSB's research priorities are really  
18 restricted to topics that we're working on. We don't  
19 cast the net as wide as you do. And so we should know  
20 that.

21 MS. SHEY: Sure.

22 MEMBER THICKE: Okay.

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1 MS. SHEY: Thank you.

2 VICE CHAIR CHAPMAN: Clarification on  
3 that, is it not topics that we're working on and topics  
4 brought to us by the public?

5 CHAIR FAVRE: Yes. We do have that as an  
6 option.

7 VICE CHAIR CHAPMAN: So these were now  
8 brought to us by the public.

9 MEMBER THICKE: Okay. Well that's  
10 great. I didn't realize that.

11 CHAIR FAVRE: Yes.

12 MEMBER THICKE: Then it's a wider net.

13 CHAIR FAVRE: It is, yes. Thank you.

14 MS. SHEY: Okay. Thanks.

15 CHAIR FAVRE: Okay. Next up is  
16 Gwendolyn Wyard followed by Allison Cooke on deck.

17 MS. WYARD: All right. Good afternoon  
18 Madame Chair, NOP staff, and ladies and gentlemen of  
19 the gallery. My name is Gwendolyn Wyard, and I serve  
20 as the Senior Director of Regulatory and Technical  
21 Affairs for the Organic Trade Association.

22 First I'd like to extend a warm welcome

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1 to the new Board Members. Congratulations. And I  
2 also want to express my gratitude to each and every  
3 one of you for, I know, the hundreds of hours of  
4 volunteer time you put in. So thank you very much.

5 I'm just going to take a couple minutes  
6 to highlight one of the topics that we submitted  
7 written comments on. You have all of our comments.  
8 My colleague Nate Lewis is going to be addressing some  
9 other issues later this afternoon.

10 But just a couple minutes, I want to  
11 address nutrient, vitamins, and minerals. As we  
12 emphasized in our comments, we agree that the current  
13 annotation is problematic, and a revision is  
14 definitely needed.

15 First and foremost, OTA would like to see  
16 NOP complete rulemaking on this exact issue because  
17 considerable time and stakeholder energy went into a  
18 two year process that led to a 2012 proposed rule that  
19 included an annotation consistent with Option Number  
20 2 of the discussion document.

21 So OTA supports Option 2 for several  
22 reasons. You'll see in our written comments we have

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1 a slightly tweaked version of that, but it's  
2 essentially the same. The one that we submitted is  
3 just a little bit more concise.

4 We support Option Number 2 because first,  
5 it's certifiable and enforceable. Because the CFR  
6 references in the annotation tie to a black and white  
7 list of vitamins and minerals that anyone can look up.

8 Second, the annotation references a list  
9 of vitamins and minerals that FDA considers to be  
10 essential or required in food and/or infant formula.  
11 And, and this is the biggie, those lists are  
12 consistent with the vitamins and minerals that were  
13 specifically enumerated, reviewed, and approved by  
14 the Board in 1995. Anything that's not on those  
15 lists, the ones that you can look up, must be  
16 petitioned.

17 The third reason we support Option Number  
18 2 is because it's consistent with the intent of the  
19 1995 Board. As OTA's task force determined through  
20 extensive outreach with members that served on the  
21 Board at the time, NOSB was opposed to the helter  
22 skelter addition of nutrients to organic foods.

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1           But they were determined to allow  
2 fortification in certified organic products in  
3 instances where their use was appropriate and the  
4 nutrients had undergone complete NOSB review via the  
5 National List process.

6           And finally the fourth reason that we're  
7 supportive of Option Number 2 is that we do support  
8 the maximum freedom of choice for consumers. And we  
9 believe that organic products should be nutritionally  
10 equal to their conventional counterparts.

11           So in closing on this topic, we hope  
12 NOSB's request for information will provide NOP with  
13 the information needed to move the process forward.  
14 We urge NOP and other stakeholders to communicate to  
15 NOP that completion of this rulemaking should be a  
16 priority.

17           And please everyone join us tomorrow  
18 evening for the reception that's going to be across  
19 the street at the zoo. If you look at the resource  
20 booklets that we have out there, there's information  
21 on the back. And I'll have some cards. Really  
22 looking forward to a networking event that everybody

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1 is welcome to. So thank you.

2 CHAIR FAVRE: Tom?

3 VICE CHAIR CHAPMAN: So on nutrients,  
4 vitamins, and minerals, your comments point to a  
5 survey as well as SPINS data that shows consumer  
6 increased purchasing of fortified organic products.  
7 But we've had and received comments from non-profit  
8 groups that represent consumer interests that, pretty  
9 much, lobbies to the opposite.

10 How to we rectify that kind of disconnect  
11 of consumer interest or wants related to fortified  
12 products in organics?

13 MS. WYARD: I would have to look at the  
14 data myself and do the side-by-side comparison  
15 because I don't know specifically.

16 VICE CHAIR CHAPMAN: We didn't really get  
17 data on the other side. It was more statements.

18 MS. WYARD: Yes. And also I think the  
19 data that we provided in our comments, it is a few  
20 years old. And the data that we were presenting was  
21 really making the point that you can see what  
22 consumers are wanting through the cash register,

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1 through the purchases that are happening there.

2 So you can look at the sales of fortified  
3 organic food. And that speaks for consumer  
4 preference. And that was our point there. There's  
5 also information that we submitted at the time of the  
6 proposed rule or the comment on the proposed rule, I  
7 think it's included in the interim rule.

8 I think there's a lot of data there that  
9 can be looked at as well that speaks to the sales of  
10 fortified foods.

11 VICE CHAIR CHAPMAN: Thank you.

12 CHAIR FAVRE: Zea?

13 MEMBER SONNABEND: Thank you Gwendolyn.  
14 Diverging just slightly, I'm going to ask you to  
15 clarify your comment on ancillary substances that you  
16 didn't address in your verbal comment. But then I'm  
17 also going to ask Emily Brown Rosen to respond to your  
18 concern about the IRAC lists and things like that.

19 MS. WYARD: So you'd like some  
20 clarification on the concerns that we expressed on the  
21 ancillary substances? Sure. So our comments on the  
22 ancillary substances, just a quick review, we think

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1 that all parts of the proposal are needed. We support  
2 the definition of ancillary substances. We support  
3 the review procedure that was outlined.

4 We've always agreed that ancillary  
5 substances do need to be reviewed. We absolutely are  
6 supportive of the template, the information that was  
7 put in there for the creation of an affidavit so that  
8 certifiers, material review organizations, and  
9 industry can make these compliance decisions on a  
10 day-to-day basis.

11 Our concern had to do with the baseline  
12 criteria that was passed in the April 2013  
13 recommendation that wasn't included in the criteria  
14 that was in this proposal. We just wanted to make  
15 sure that, at the end of the day, all of that criteria  
16 would come together so that that criteria then would  
17 be transferred to Example 2 in affidavit.

18 So if the intent is for all of that to come  
19 together, that's great. We recommended taking the  
20 proposal back to subcommittee and putting one out in  
21 the fall that would put that all there together just  
22 to be absolutely certain. Does that answer your

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1 question as to the concern?

2 MEMBER SONNABEND: What I was more  
3 concerned about, because I will explain the  
4 difference between those two sets of criteria in the  
5 presentation on Wednesday, but more your concern  
6 about IARC lists and the NTP lists involving ethanol  
7 and red meat and how that you construed that as,  
8 perhaps, not being allowed.

9 MS. WYARD: Okay. Sorry. So I told you  
10 about that one.

11 MEMBER SONNABEND: But I mean, I'm glad  
12 to hear the other thing. But that will be addressed  
13 on Wednesday.

14 MS. WYARD: Okay. Super. So the list  
15 of known and probable carcinogens, on that list I  
16 found ethanol and ethyl alcohol and red meat. And I  
17 heard from several members expressing concern that  
18 they're on that list.

19 Ethanol is quite commonly used as an  
20 ancillary substance. There's organic ethanol that's  
21 used for making flavors, et cetera, et cetera. So it  
22 was how to reconcile something such as ethanol that

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1 would be on that list of probable or known  
2 carcinogens. Would that completely eliminate then  
3 its allowance as an ancillary substance?

4 And we, in looking at it, felt like the  
5 whole context wasn't being taken into consideration.  
6 That just because something was on that list, you had  
7 to then look at the overall exposure that one would  
8 have to that particular substance on the list.

9 I mean I think we've probably all here in  
10 this room consumed red meat or alcoholic beverages  
11 sometime over the past week, maybe not.

12 MEMBER SONNABEND: Well before I ask  
13 Emily to comment, what is red meat an ancillary  
14 substance in? And shouldn't vegetarians be warned  
15 about that?

16 MS. WYARD: That was just to express a  
17 point, that just because it's on the list doesn't  
18 guarantee that you're going to get cancer.

19 MEMBER SONNABEND: Emily, could you talk  
20 about the alcohol, the ethanol?

21 MS. BROWN ROSEN: Yes. I think I need to  
22 look back at the IR list again and the other list

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1 again. But I think you could somehow -- basically  
2 you're looking at the use as an ancillary. And that  
3 list is not restricted to that type of use.

4 So I think there might be some wording  
5 ways to get around that. I'm not, you know, but we'd  
6 have to look at that a little more closely.

7 MEMBER SONNABEND: I thought you  
8 mentioned to us in subcommittee that it was for  
9 alcoholic beverages only was how it was listed on the  
10 cancer list. And therefore, as an ancillary it  
11 wouldn't be used in alcoholic beverages. It would be  
12 used in other things.

13 VICE CHAIR CHAPMAN: That's my  
14 understanding of the list. It says ethanol for  
15 alcoholic beverage.

16 MS. BROWN ROSEN: Okay.

17 VICE CHAIR CHAPMAN: So if that's the  
18 annotation, would we consider that, if it's being used  
19 as an ancillary, would we consider that for alcoholic  
20 beverage? I assume not.

21 MS. BROWN ROSEN: No. No, because  
22 you're looking at its use as an ancillary. We maybe

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1 have to tighten up the language a little bit to make  
2 the use indicated there.

3 MS. WYARD: And that was our comment,  
4 that there might need some additional guidance to go  
5 with it. But we completely support the approach that  
6 you're taking. That you'd be looking at the, you  
7 know, the health impacts. That's critical.

8 MEMBER SONNABEND: If you do find red  
9 meat in something, please let some of us know who don't  
10 eat red meat.

11 MS. WYARD: I'll be the first to let you  
12 know. Thank you very much.

13 CHAIR FAVRE: Okay. Next up is Allison  
14 Cooke followed by Jeff Noland on deck.

15 MS. COOKE: Okay. Good afternoon. My  
16 name is Allison Cooke and I'm representing the  
17 International Food Additives Council. IFAC is a  
18 global association representing manufacturers of  
19 food ingredients.

20 IFAC strongly supports relisting  
21 carrageenan on the National List at 205.605(a). Like  
22 other seaweed derivatives, carrageenan utilizes mild

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1 processing and is correctly characterized as a  
2 non-synthetic substance.

3           Since the last sunset review, multiple  
4 rigorous scientific studies have been published that  
5 demonstrate its safety. Perhaps the most  
6 significant, in 2015, the Joint FAO/WHO Expert  
7 Committee on Food Additives published their  
8 evaluation of carrageenan for use in infant formula  
9 and formulas for special medical purposes.

10           JECFA is an international independent  
11 expert scientific committee which reviews the safety  
12 of food additives. Ultimately JECFA determined that  
13 carrageenan is safe for use in infant formula and  
14 formulas for special medical purposes.

15           The report also concluded that it is  
16 unlikely to be absorbed in the human gut.  
17 Carrageenan offers organic formulators with a number  
18 of unique properties that are not available from other  
19 hydrocolloids or thickening agents.

20           One of these properties is its unique  
21 protein interaction which helps prevent separation of  
22 key components even at very low usage levels. It is

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1 also known for its gelling, suspension, and  
2 thickening abilities across many temperature and pH  
3 ranges.

4           Reclassifying or delisting carrageenan  
5 when other suitable organic alternatives do not exist  
6 would threaten consumer access to many organic  
7 products and limit innovation.

8           Finally, it is important to note that  
9 seaweed cultivation for carrageenan production helps  
10 create valuable marine habitats and improves water  
11 quality, a net positive impact on the environment.  
12 Such cultivation is also commonly practiced by small  
13 family farmers and provides a sustainable livelihood.

14           For these reasons, IFAC strongly supports  
15 relisting carrageenan on the National List at  
16 205.605(a). IFAC also supports the continued  
17 listing of silicon dioxide as a synthetic listed on  
18 the National List at 205.605(b).

19           Silicon dioxide is an essential and  
20 irreplaceable ingredient that functions as the  
21 defoamer in a variety of applications which are  
22 critical to the production of organic foods. IFAC is

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1 unaware of any suitable organic alternatives.

2 IFAC also notes that the revised  
3 annotation for silicon dioxide effective November 3,  
4 2013 already provides for the continued use of the  
5 defoamer under certain circumstances.

6 Due to its versatility, IFAC believes  
7 that delisting silicon dioxide will have a  
8 significant negative impact on organic products.  
9 And we urge the NOSB to relist silicon dioxide at  
10 205.605(b) with the current annotation.

11 Finally, IFAC supports the continued  
12 listing of cellulose at 205.605(b). While the  
13 production of non-synthetic cellulose is technically  
14 possible, no commercial sources are currently known.  
15 IFAC is also unaware of any organic cellulose  
16 currently available.

17 IFAC notes that the NOSB has asked for  
18 information on possible alternatives for what limited  
19 use is permitted under the National List annotation.  
20 To date, IFAC has been unable to identify a suitable  
21 organic alternatives for the important functions of  
22 filtering aid and anti-caking agent nor suitable

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1 substitutions in casings.

2 As a result, IFAC supports the relisting  
3 of cellulose for use in regenerative casings, as an  
4 anti-caking agent and filtering aid and would not  
5 object to the addition of powder to the listing.  
6 Thank you.

7 CHAIR FAVRE: Any questions? Tom?

8 VICE CHAIR CHAPMAN: On carrageenan, you  
9 said its removal would threaten the access to many  
10 organic products. We've had liquid infant formula  
11 identified. What other products are solely  
12 available with carrageenan?

13 MS. COOKE: So I believe the  
14 representative from IDFA mentioned that it's used in  
15 a lot of dairy products. It's in different matrices  
16 there. So creams, ice creams, yogurts, other dairy  
17 products it's used.

18 VICE CHAIR CHAPMAN: And none of those  
19 are available without carrageenan?

20 MS. COOKE: I mean I believe there might  
21 be alternatives. But I don't know of organic ones  
22 that are available. There could be.

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1                   VICE CHAIR CHAPMAN: You're not aware of  
2 organic ice creams without carrageenan in them?

3                   MS. COOKE: I don't know all the organic  
4 ice creams available out there so I cannot answer that  
5 truthfully.

6                   VICE CHAIR CHAPMAN: Okay. So if I could  
7 reinterpret what you said, there are organic products  
8 on the marketplace that use carrageenan that could be  
9 threatened. But besides liquid infant formula,  
10 you're not aware of any other classes of products that  
11 solely use carrageenan? Like ice cream, that it's in  
12 100 percent of the ice creams out there.

13                  MS. COOKE: I know there are others  
14 talking tomorrow on carrageenan. So perhaps they  
15 could provide more information on the specific types  
16 of products that it would be used.

17                  VICE CHAIR CHAPMAN: Okay. But you  
18 don't have any more information on that statement you  
19 made?

20                  MS. COOKE: Not at this time.

21                  VICE CHAIR CHAPMAN: Thank you.

22                  CHAIR FAVRE: Jean?

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1                   MEMBER RICHARDSON: I'm getting the look  
2 from the Chair. You say that most of the carrageenan,  
3 or I'm interpreting you, is most of the carrageenan  
4 is actually farmed. Is that what you're suggesting?

5                   MS. COOKE: Correct.

6                   MEMBER RICHARDSON: So do you have a  
7 percentage?

8                   MS. COOKE: I don't have that off hand.  
9 I could follow up and --

10                  MEMBER RICHARDSON: It would be great if  
11 you could. That would be helpful.

12                  MS. COOKE: Okay. Yes.

13                  MEMBER RICHARDSON: Thank you.

14                  CHAIR FAVRE: Thank you very much. Next  
15 up is Jeff Noland followed by Richard Mathews on deck.

16                  MR. NOLAND: Hi there. I'm Jeff Noland.  
17 I'm the Managing Director of EnergyWorks BioPower.  
18 And I want to thank you guys for the opportunity to  
19 speak today regarding our petition to modify the ash  
20 from manure burning prohibition.

21                  I've read the Crop Subcommittee  
22 recommendation and I am surprised that it basically

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1 ignores our petition. I am responding to that  
2 recommendation and we look forward to your fair  
3 consideration and dialogue.

4 First, our petition highlights the big  
5 difference between open burning and a controlled  
6 thermochemical reaction. It's true that open  
7 burning wastes nutrients and causes air pollution.  
8 So it is rightly prohibited.

9 Our proposal specifies a process that  
10 selects mineral nutrients, retains fixed carbon, and  
11 operates under an air permit. The result is a  
12 non-synthetic ingredient that lets a crop fertility  
13 program proceed with no health and environmental side  
14 effects.

15 The logic gap in the recommendation is the  
16 premise that since some of our manure comes from a  
17 CAFO, it disqualifies the new practice from being  
18 considered. Suppose that the manure came from  
19 organic farmers. Would that qualify our ingredient?  
20 Is fresh manure from CAFOs prohibited in organic  
21 farming? No it's not.

22 The National List encourages sustainable

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1 non-synthetic materials. So clearly, the manure's  
2 origin should have nothing to do with the prohibition.  
3 So the answer to the three evaluation criteria should  
4 clearly be yes.

5 On impacting humans and the environment,  
6 the no boxes being checked are only true if a process  
7 like ours is not solving CAFO manure challenges.

8 Well our petition is not about a single  
9 facility. The agreement is to the overwhelmingly  
10 positive benefits of our process to the Chesapeake  
11 Watershed is broad, to environmentalists, the EPA,  
12 and the states around us who benefit from improved  
13 water quality.

14 On the essential and available criteria,  
15 there are two points. The first is that our material  
16 is a tricalcium phosphate. The National List  
17 currently allows synthetic calcium phosphates that  
18 originate from mined rock, a byproduct of which is  
19 large radioactive tailings piles that are regulated  
20 by EPA. So alternatives are available but they hurt  
21 the environment.

22 Second, manure can be substituted but

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1 that the risk of nutrient pollution and health issues  
2 which the subcommittee acknowledges in objection to  
3 CAFOs. As we deal with avian influenza, storing,  
4 transporting, and broadcasting manure even from  
5 smaller producers is a major risk.

6 On compatibility and consistency, the  
7 counter argument is the same as that for humans and  
8 the environment. If the NOP wants to promote natural  
9 and healthy food production practices, then the  
10 answer to the first criteria is absolutely yes.

11 In fact, the presence of an effective  
12 manure management plan minimizes a CAFO's  
13 environmental impact. So by any yardstick, a process  
14 that recycles material, minerals, generates  
15 renewable energy, and tackles the top pollution issue  
16 in the Chesapeake Bay is unsustainable.

17 So finally, manure is in abundance. It  
18 is the number one water pollutant in the Mid Atlantic.  
19 It makes no sense to limit manure derived  
20 non-synthetics. With repeated reference to past  
21 decisions, the subcommittee ignores the potential for  
22 innovation.

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1           In this case, that innovation enables  
2 wider scale adoption of non-synthetics. So the  
3 subcommittee's recommendation should be rejected and  
4 a well written exception to the ash from manure  
5 burning prohibition accepted. Thank you.

6           CHAIR FAVRE: Do we have any questions?  
7 Thank you. We appreciate your passion on the  
8 subject.

9           MR. NOLAND: You bet.

10          CHAIR FAVRE: Next up is Richard Mathews  
11 followed by Zareb Herman.

12          MR. MATHEWS: Good afternoon. My name  
13 is Richard Mathews. I'm the Executive Director of  
14 the Western Organic Dairy Producers Alliance. The  
15 dairy producers in the western region produce or raise  
16 over half of the dairy animals and produce over half  
17 of the milk.

18                 We are in support of the hypochlorous acid  
19 as produced through electrolyzed process. That is an  
20 important point that it has to be the electrolyzed  
21 method because that is only using water and salt.

22                 Other forms of hypochlorous acid are

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1 produced using other chemicals that you have not  
2 reviewed. And therefore, it needs to be annotated in  
3 a way that makes it clear that it's coming from the  
4 process of electrolyzing the brine.

5 The second issue that I would like to  
6 bring up is that we've heard a lot today about  
7 hydroponics, aquaponics. I think I heard aeroponics  
8 one time. And I talked to Dr. Tollefson and she  
9 indicated that they had not considered fodder.  
10 Fodder produced through a fodder growing system that  
11 is indoors that uses water and alfalfa seed to raise  
12 fodder for dairy animals as a replacement for grain.

13 Now I've heard through the grapevine that  
14 that would be considered as a sprout. I'm having  
15 trouble envisioning that fodder several inches tall,  
16 green as the grass in my yard with white roots is going  
17 to be considered a sprout. And so we need to be real  
18 clear there whether or not you're going to take away  
19 fodder growing systems from dairy farmers. And I  
20 hope that's not the case.

21 The other thing is parasiticides. We at  
22 WODPA believe that it is only for use in an emergency

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1 situation. We want to see that continue. We would  
2 like to see something new in that, specifically that  
3 you prohibit off label uses of parasiticides. And I  
4 can tell you that my farmers are very upset about the  
5 concept of two days for Moxidectin and fenbendazole.

6 And in quickly closing, to say that in the  
7 case of the animal welfare, the dairy farms are  
8 concerned throughout the nation. And to say that  
9 well, it's going to be okay because that's not quite  
10 what we meant to do and give out some explanation or  
11 a guidance.

12 We all have to remember explanations and  
13 guidance are not regulatory text. Regulatory text  
14 will be interpreted and enforced. Just think of one  
15 thing, the pasture rule. Why did we have the pasture  
16 rule? Because the text said one thing --

17 CHAIR FAVRE: I'm sorry, we're going to  
18 have to cut it off there.

19 MR. MATHEWS: Okay.

20 CHAIR FAVRE: We're past time.

21 MR. MATHEWS: Well I'm really done. I  
22 just wanted to make the point that the text said one

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1 thing, the preamble said something else, preamble  
2 never follows through in the code of federal  
3 regulations. Thank you.

4 CHAIR FAVRE: We might have a Board  
5 Member ask a question that'll give you a chance to  
6 finish out. Do we have any questions? Jean?

7 MEMBER RICHARDSON: Yes. I read your  
8 comments with great care and took them very seriously.  
9 And compared data and so on to verify, you know, what  
10 it is and how we're approaching it.

11 The first thing I want to do is absolutely  
12 assure you that there is no change to the emergency  
13 only use in this recommendation. That's always been  
14 the case and that continues to be the use.

15 And indeed, one of the things that we will  
16 be taking up following this meeting based on public  
17 comments such as yours, is to really fully understand  
18 what the definition is of emergency use in order that  
19 it's fully clarified. So I appreciate your comments  
20 on that and others that have done the same thing.

21 The other thing regard the off label use,  
22 I don't believe that we -- and Emily can perhaps

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1 correct me if I'm wrong here. I'm not brilliant on  
2 everything. I don't believe that we could prevent  
3 the off label use. And there is no intent at all in  
4 what we drafted to encourage off label use.

5 Off label use, as you know, is really a  
6 veterinarian relationship discussion with the  
7 farmer. And based on animal size, et cetera, breed  
8 of animal, ruminant, you know -- so that's the kind  
9 of thing that the veterinarian has to make a decision  
10 on.

11 But we are not in any way pushing off label  
12 use at all. But at the same time, we can't, it's not  
13 something we're able to prevent. I don't know,  
14 Francis, if you want to add something there.

15 CHAIR FAVRE: Francis?

16 MEMBER THICKE: Well thank you Richard  
17 for your comments. I'm just, my question is, were  
18 there sheep and goat dairy producers in your WODPA  
19 discussion? Or was it all dairy cattle?

20 MR. MATHEWS: It's all dairy cattle.

21 MEMBER THICKE: Okay.

22 CHAIR FAVRE: Emily?

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1                   MEMBER OAKLEY:    Could you elaborate on  
2 the concern for the two day withholding period please?

3                   MR.    MATHEWS:       Well there are meat  
4 withholdings which, if you look at at least one of the  
5 NADAs for Ivermectin as an example -- well actually  
6 for all of those.  For Ivermectin, it says that meat  
7 isn't a good measure.  And the other ones are using  
8 meat as measures.

9                   Now I understand that when the animal is  
10 treated, it loses its meat status.  But to say that  
11 you've got milk tolerances would zero withholds.  And  
12 then you, apparently, have an arbitrary two day.  
13 We're not convinced that there's not going to be  
14 parasiticides in the milk.

15                   And the last thing we need is a scandal  
16 caused by the presence of parasiticide in milk.  Our  
17 consumers expect that the milk not have antibiotics,  
18 that it not have growth hormones, or any other  
19 material such as a parasiticide.

20                   CHAIR FAVRE:    Jean?

21                   MEMBER RICHARDSON:  I take your concerns  
22 very seriously.  And if I have your email address,

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1 what I could do is I can email to you the precise way  
2 in which we got the two day. And FARAD database and  
3 all those other places, so you can see the scientific  
4 basis. And you know, the FARAD database science that  
5 went into developing the data.

6 And we are, as you know, not proposing to  
7 -- we're proposing to use double the FARAD. So it's  
8 still low, you know, compared with anything else. I  
9 mean, I believe the science is very good to support  
10 what it is that we're recommending.

11 Furthermore, Ivermectin, we're going to  
12 be petitioning to remove Ivermectin. We, all of us,  
13 were fully in accord at our last year, as you know,  
14 to remove it then. We wanted to just give it a bit  
15 longer. And we will be moving to remove it because  
16 of the dung beetle impact, apart from anything else.  
17 And we're not changing the Ivermectin  
18 recommendations.

19 So if you email me, or I'll provide you  
20 with that science foundation.

21 MR. MATHEWS: I'll be glad to give you my  
22 email address.

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1 MEMBER RICHARDSON: Thank you.

2 MR. MATHEWS: And just to follow up on  
3 some of your comments, we -- well we'll just talk about  
4 it later.

5 CHAIR FAVRE: Yes.

6 MR. MATHEWS: Okay.

7 CHAIR FAVRE: Thank you very much. We  
8 appreciate it. Next up is Zareb Herman followed by  
9 Troy Aykan.

10 MR. HERMAN: My name is Zareb Herman. I  
11 am a nutritionist with the Hain Celestial Group. My  
12 topic is the vitamins and minerals discussion  
13 document.

14 While most Americans consume an abundance  
15 of calories, the National Health and Nutrition  
16 Examination Survey shows that millions of Americans  
17 consume inadequate levels of one or more vitamins and  
18 minerals including iron, calcium, magnesium,  
19 Vitamins A, C, D, E, B6, folate, thiamine, and others.

20 These low intakes would be much worse if  
21 food was not fortified. As an example, if food was  
22 not fortified with folic acid, 88 percent of the

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1 population would consume less than the estimated  
2 average requirement. But due to fortification, the  
3 percentage has dropped to just 11 percent and  
4 thousands of children have been spared from serious  
5 birth defects.

6 As a nutritionist who cares about the  
7 health of others, I cannot support an annotation that  
8 limits the fortification of organic foods Or forces  
9 organic products into the inferior made with organic  
10 category. Making organic food less nutritious and  
11 nutritionally inferior to conventional food is  
12 irresponsible.

13 The public health consequences would hurt  
14 the health of consumers. And the loss of sales would  
15 hurt the organic industry. For these reasons, I  
16 generally support Option 2, Annotation 4.

17 But I prefer a more concise annotation  
18 that was proposed by the Organic Trade Association  
19 that reads, vitamins and minerals identified as  
20 essential in 21 CFR 101.9 or as required for infant  
21 formula by 21 CFR 107.100 or 107.10.

22 The substantial sales of organic foods

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1 show that organic food consumers want these products.  
2 If some consumers do not wish to purchase such  
3 products, the solution is simple. Don't buy them.

4 As an example, I purchased this fortified  
5 rice beverage that contains calcium and Vitamin D  
6 because I am lactose intolerant and don't drink milk.  
7 I like to get the nutrients that are normally obtained  
8 from milk. But if another consumer does not want the  
9 added nutrients, he or she can purchase this product  
10 that is not fortified.

11 Please do not limit the fortification of  
12 organic foods. Thank you.

13 CHAIR FAVRE: Any questions? Thank you  
14 very much. Next up is Troy Aykan followed by Jason  
15 Whitcher on deck.

16 MR. AYKAN: Good afternoon. My name is  
17 Troy Aykan. I'm a food scientist and a lawyer with  
18 the Hain Celestial Group, one of the largest producers  
19 of organically produced items in the world. I also  
20 teach courses in food laws and regulations at several  
21 universities in Southern California.

22 We strongly support the continued listing

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1 of silicon dioxide. The current annotation allows  
2 for the use of silicon dioxide when organic rice hulls  
3 are not effective. In some food processing  
4 applications, in fact, rice hulls are an acceptable  
5 substitute for silicon dioxide.

6 However, rice hulls are not the same  
7 substance as silicon dioxide. And rice hulls do not  
8 have the same functionality as silicon dioxide in all  
9 applications. Some of our organic flavor suppliers  
10 utilize silicon dioxide to prevent caking in dry  
11 flavors.

12 A number of our suppliers of organic spice  
13 and seasoning blends use silicon dioxide because rice  
14 hulls cannot prevent caking in these sticky  
15 ingredient blends. Silicon dioxide is extremely  
16 important to ensure uniform mixing of our dry blends  
17 and the uniform application of our seasoning blends  
18 to our snack products.

19 We urge the Board to keep silicon dioxide  
20 on the National List. Thank you.

21 CHAIR FAVRE: Thank you very much. Any  
22 questions? Thank you very much.

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1 MR. AYKAN: Thank you.

2 CHAIR FAVRE: Next up is Jason Whitcher  
3 with Jay Feldman on deck.

4 MR. WHITCHER: There's a small group,  
5 there's a group of farmers proposing that  
6 containerized growing should not be permitted to use  
7 the USDA organic seal. What they are suggesting is  
8 that if a plant is grown in a bucket, bag, trough, or  
9 any other type of container, the production cannot be  
10 considered organic.

11 Does this mean they feel or believe the  
12 house plants I have in my home are synthetic and not  
13 organic because they're in clay pots? Hopefully not  
14 or this would be viewed as absurd. However, this is  
15 no more absurd than the suggestion that containerized  
16 growing cannot be organic.

17 Containerized growing is a sustainable,  
18 viable, and vital method of organic production that  
19 provides an environmentally responsible way to give  
20 the U.S. consumers the organics that they want.

21 Mastronardi Produce distributes organic  
22 cucumbers, tomatoes, and peppers from our own farms

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1 as well as grower-partner farms. We've been doing so  
2 for over eight years under the USDA organic seal.

3 According to Nielsen Perishables Group  
4 data, year over year volumes are up on organic  
5 cucumbers by 29 percent with 39 percent of the volume  
6 coming from hot houses, by 39 percent on organic  
7 peppers with 43 percent of the volume coming from hot  
8 houses. And volume is up 19 percent on organic  
9 tomatoes with 38 percent of the volume coming from hot  
10 houses.

11 Now that container growers have grown the  
12 market over the last ten years, this notion to  
13 decertify containerized growing would inhibit the  
14 growth, supply, and consumption of organic produce.  
15 And increase pricing to the financial benefit of the  
16 remaining producers and the detriment of the American  
17 public.

18 USDA organic regulations mandate that we  
19 respond to site specific conditions by integrating  
20 cultural, biological, and mechanical practices that  
21 foster the cycling of resources, promote ecological  
22 balance, and conserve biodiversity. Are soil

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1 erosion, nutrient runoff, water consumption no longer  
2 issues in the United States?

3 To illustrate the environmental  
4 sustainability of containerized growing, the 120  
5 acres of hot house production in the Mastronardi  
6 network would require over 1,000 acres of open field  
7 production and approximate ten times the amount of  
8 water.

9 The 120 acres that Mastronardi produces  
10 and distributes is only a small part of the hot house  
11 production of organics, less than five percent  
12 actually.

13 Even if we argue it is five percent of the  
14 production, this means that the removal of these  
15 organics in the marketplace would require over 20,000  
16 acres of land and all of the excess natural resources  
17 required to farm without using containerized methods.

18 That's just in tomatoes, cucumbers, and  
19 peppers. Are we willing to sacrifice all of this land  
20 and add to nutrient runoff, soil erosion, and water  
21 consumption issues that already exist?

22 The objective of the NOSB and the USDA

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1 should be to ensure that the American public is being  
2 protected and getting what they expect when  
3 purchasing products with the USDA organic seal.

4 The research of the Organic Trade  
5 Association demonstrates that containerized  
6 production of organics meets or exceeds consumer  
7 expectations for organically grown produce. And  
8 that's the only opinion that should matter. Thank  
9 you.

10 CHAIR FAVRE: Any questions? Thank you  
11 for your comments.

12 MR. WHITCHER: Thank you.

13 CHAIR FAVRE: Next up is Jay Feldman with  
14 Michael Polletta on deck. Hi Jay.

15 MR. FELDMAN: Hi. Good afternoon.  
16 Welcome to all new Board Members. And Harold, it's  
17 great to see you back and not have to listen to your  
18 disembodied voice. So we're happy about that.

19 Organic is great and we have to make sure  
20 that it stays that way. So I'm going to spend a lot  
21 of my time today talking, all of it, on the PPM.

22 The NOSB has, through its policies and

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1 procedures, created an opportunity to discuss  
2 problems under the banner of incentivizing continuous  
3 improvement. The PPM, as you know, outlines the  
4 decision making process of the Board that has  
5 historically facilitated broad public discussion.

6 Revisions to the PPM have been made since,  
7 have not been made since 2012. As you all know, the  
8 PDS or the Policy Development Subcommittee was  
9 eliminated by the NOP in 2013. And the Board was told  
10 that USDA has complete authority over the PPM.

11 I realize that's changed now but you must  
12 ensure that NOP does not, at its discretion, limit the  
13 ability of the Board, your ability to fulfill a  
14 statutory duty to recommend materials and clearly  
15 advise the Secretary on "any other aspects of the  
16 implementation" of the Act.

17 Work plans, the Board must fulfill its  
18 statutory responsibility and comply with the law. If  
19 it does not control its work plan, it cannot do this.  
20 The Board was created to keep organic ahead of the  
21 curve and was given independence to do this. This  
22 creates a healthy push and pull with USDA that has

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1 served organic well as it grows to a \$40 billion  
2 industry.

3 We are not supporting farmers when we take  
4 actions that reduce consumer confidence in the  
5 organic label. Consumers want to know that the  
6 process by which decisions are made are fair.

7 Do not feel constrained when it comes to  
8 following the law if there is a need for restricting  
9 material uses. The marketplace will encourage  
10 ingenuity and that has gotten us to this point. And  
11 we have instituted organic systems that nurture soil  
12 biology and nutrient cycling that we once were told  
13 was not feasible in commercial agriculture.

14 Do not do away with the incentives the  
15 Board has created over time for open participation of  
16 all stakeholders including minority views. We will  
17 see, if you do that, we will see others filling a gap  
18 such as non-GMO labeling and pastured eggs and no  
19 carrageenan.

20 So over time, the Board has adopted a lot  
21 of provisions including an amendment to the PPM for  
22 annotations. It has unanimously adopted a docket.

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1 All of these things have established a tone of  
2 openness.

3 So it's your job, we believe, through the  
4 PPM and its amendments to ensure that this openness  
5 is retained. Do not confuse collaboration with  
6 concurrence. You have an independent responsibility  
7 to establish positions that ensure public  
8 involvement. Thank you.

9 CHAIR FAVRE: Thank you Jay.

10 MR. FELDMAN: Thank you.

11 CHAIR FAVRE: Any questions? Zea?

12 MEMBER SONNABEND: Hi Jay.

13 MR. FELDMAN: Hey.

14 MEMBER SONNABEND: Sorry to change the  
15 subject. One of the things that is on our work plan  
16 because you put there is the contamination of farm  
17 inputs. What would you suggest should be our next  
18 steps to take a look at that? Because we haven't  
19 gotten a very firm grip on it since you left. But  
20 Harriet has agreed to take it over.

21 MR. FELDMAN: Thank you. Thank you  
22 Harriet. Well as you know, the public has seen a

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1 discussion document on this topic. It's one of the  
2 examples, by the way, of the Board staying ahead of  
3 the curve. And is a positive example of a work plan  
4 item being approved by NOP to engage the community  
5 with this.

6 I think the compost issue is a place to  
7 begin in terms of identifying a procedure by which the  
8 Board affirms a review process that can be carried out  
9 by certifiers, by inspectors to ensure a level of  
10 compliance.

11 And that, through that process, we go back  
12 and review the guidance on bifenthrin and evaluate  
13 that whole process of allowed residues. And how we  
14 go through a process that ensures that when consumers  
15 ask, well do we know what's in our compost, we have  
16 a solid process that we can point to that we feel good  
17 about. And that we have evaluated fully. So I hope  
18 that answers your question.

19 I think that's a good starting point, a  
20 jumping off point for issues around water  
21 contamination, for issues around acceptable residues  
22 in materials that make their way into organic

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1 production.

2 MEMBER SONNABEND: Okay. I'm not sure  
3 we can look at that compost guidance while it's being  
4 challenged in court. But once that is past, maybe.  
5 But thanks.

6 MR. FELDMAN: Okay.

7 CHAIR FAVRE: Any other questions?

8 MR. FELDMAN: Thank you.

9 CHAIR FAVRE: Thank you Jay. Next up is  
10 Michael Polletta followed by Jim Crawford on deck.

11 MR. POLLETTA: Greetings and good  
12 afternoon. My name is Michael Polletta, Esquire and  
13 I'm the Legal and Regulatory Specialist at Vermont  
14 Soap in Middlebury, Vermont, U.S.A. I'm here today  
15 to represent the interest of organic soaps.

16 For the last 13 years, Vermont Soap has  
17 been a certified organic processor of body, pet, and  
18 home cleaning products that make products made both  
19 under our own label and for a number of independent  
20 labels.

21 Vermont Soap supports the relisting of  
22 potassium hydroxide with the following comments. We

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1 ask for a clarification that potassium hydroxide is  
2 a processing aid rather than an ingredient for the  
3 purpose of organic soap production.

4           According 7 CFR 205.2, the NOP defines an  
5 ingredient as a substance used in preparation of a  
6 product that is still present in the end result.  
7 Processing aid is defined as, relevantly, a substance  
8 added for a functional effect which is not present in  
9 the finished product at a significant level and has  
10 no technical or functional effect on the product.

11           We believe that potassium hydroxide's  
12 role in soap making should be clarified is that as a  
13 processing aid because it is not present in the final  
14 product except in incidental, non-functional trace  
15 amounts.

16           Potassium hydroxide crystallizes organic  
17 oils into organic soap. Chemically speaking, one  
18 triglyceride oil chain is joined to three soap crystal  
19 molecules and a glycerine molecule leaving behind no  
20 potassium hydroxide. Meaning it poses no threat to  
21 human or environmental health.

22           To put it simply, potassium hydroxide

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1 aids in processing oils, which make you dirty, into  
2 soap, which makes you clean. According to the NOP,  
3 that means for the process of making soap, potassium  
4 hydroxide which is not found in nor has an effect on  
5 final product, meets the definition of a processing  
6 aid which is not counted against a products organic  
7 percentage.

8           However, as things currently stand,  
9 potassium hydroxide is counted in the ingredients  
10 that make up soap despite not appearing in organic  
11 soap. This keeps it from passing the key 95 percent  
12 organic mark.

13           Instead, all organic soap products must  
14 state made with organic oils despite the fact that  
15 saponified organic oils are the only ingredient found  
16 in this product.

17           Organic soap is part of the organic  
18 family. It may not be a food product, but it is a  
19 daily part of life that organically minded consumers  
20 both desire and deserve. If the body is a temple, not  
21 only should we be concerned with what goes into it but  
22 also what goes onto it.

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1           Organic soap will never harm human skin  
2 or the environment in the same way that detergent  
3 based synthetic soap does. If the law is clarified  
4 so that potassium hydroxide is officially recognized  
5 as the processing agent that it is, organic soap  
6 makers will be able to advertise their product for  
7 what it is. An organic product made with organic  
8 ingredients made in much the same way that humanity  
9 has been making soap for over 4,000 years.

10           On behalf of organic soap manufacturers,  
11 we request that NOSB clarify the classification for  
12 potassium hydroxide as a processing aid, paving the  
13 way for truly organic certified soaps. Thank you for  
14 your time and consideration.

15           CHAIR FAVRE: Thank you very much. Any  
16 questions? Thank you. Next up is Jim Crawford  
17 followed by Mark Stanley on deck.

18           MR. CRAWFORD: Thank you very much for  
19 this opportunity to speak on some general topics. My  
20 name is Jim Crawford and for 44 years my wife and I  
21 have owned and made our family's living on New Morning  
22 Farm, a certified organic vegetable farm of 95 acres

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1 in central Pennsylvania.

2 In addition to our many vegetable crops,  
3 we sell eggs from our flock of 400 pastured laying  
4 hens. Besides my farming work, I am a founder and  
5 President of a producer's marketing cooperative,  
6 Tuscarora Organic Growers Cooperative which since  
7 1988 has been owned by its members, approximately 50  
8 growers like myself all certified organic.

9 On our farm, we've been growing  
10 organically since the beginning in 1972. In 1987 we  
11 did become certified. And in 1990, we strongly  
12 supported the idea of USDA certification.

13 As the rules were made and the NOP and the  
14 NOSB were established, we were optimistic that the  
15 process would succeed in truly representing and  
16 legitimizing our growing methods. The legislation  
17 and the rules seemed to be well conceived to create  
18 an open democratic process that would have strong  
19 input from all sectors of the organic community.

20 We knew that there would always be threats  
21 to the organic, to the integrity of the word organic  
22 from powerful commercial interests that would seek to

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1 weaken the standards to make it easier to profit from  
2 marketing organic foods. But we felt that the NOSB,  
3 being at the heart of this potential conflict, had the  
4 power and the duty to protect organic integrity.

5 We felt that the NOSB would be the key,  
6 the strongest guarantor of organic integrity. And  
7 that as long as the NOSB was constituted as intended  
8 by the law, as long as the NOSB maintained its power  
9 to define organic standards, that organic integrity  
10 would be safe.

11 Unfortunately, we are worried today. I  
12 feel a lot of respect and gratitude for the difficult  
13 work that you folks do. I'm personally unschooled in  
14 many of the arcane, complex issues that you have to  
15 deal with.

16 I do know, however, that way back in 1972,  
17 we organic farmers, unsophisticated as we were then,  
18 pretty much agreed on what the word organic meant. We  
19 agreed that synthetic inputs were not part of organic  
20 farming.

21 We agreed that soil, healthy,  
22 biologically active soil was the very essence and key

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1 feature of organic farming. Soil, not plant  
2 nutrients formulated by humans and fed to plants  
3 indoors through plastic tubes.

4 And we agreed that organic animal  
5 agriculture should be based on pasture. That is, on  
6 grass, dirt, sunlight, and fresh air. We never  
7 imagined that organic milk, meat, or eggs could be  
8 produced on huge pads of concrete or vast, muddy feed  
9 lots in factory like conditions.

10 So we farmers are dismayed at the trends  
11 that we see in the ways the word organic is being  
12 abused today in agriculture. A great many of us  
13 organic farmers believe in the work and trust in the  
14 work and the views of the Cornucopia Institute.

15 Many of us have supported the Cornucopia  
16 people for many years. We think they have enormous  
17 integrity and expertise. We think that they  
18 understand the issues and the details.

19 So I respectfully encourage you, Members  
20 of the NOSB, to listen to the seasoned experts on  
21 Cornucopia staff who have the best interests of all  
22 of us at heart. And who only hope to protect the

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1 integrity of organic agriculture. Thank you very  
2 much for letting me speak.

3 CHAIR FAVRE: Thank you very much. Any  
4 questions? Thank you for your comments. Next up is  
5 Mark Stanley with Roy Brubaker on deck.

6 MR. STANLEY: I want to thank you for  
7 having us here this evening. And thank Cornucopia  
8 for allowing us to be part of the representation of  
9 this brief time. My name is Mark Stanley and I am a  
10 farmer.

11 We have been farming in Three Springs,  
12 Pennsylvania since 1986, for 30 years. And before  
13 that, I actually started organic farming in  
14 California in 1972 and was part of a founding movement  
15 of the CCOF. In the mid '80s, I also was able to help  
16 organize and become involved with the OCIA, an organic  
17 certifying organization.

18 I realize you don't know me from Adam. But  
19 we do know each other in the fact that we have the  
20 propensity to act in self-serving and selfish ways.  
21 Or we can choose to act in openness and fairness, set  
22 our criteria based upon the foundations of the organic

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1 movement.

2           These foundations, since I've been a  
3 farmer, since 1972, have been our operating model.  
4 The time honored and proven method of openness and  
5 honesty within the decision making of organic  
6 standards by yourselves, the Board, and with the other  
7 groups that I've been involved with.

8           The farmers have been the ones to lead  
9 forth in honesty and primarily a concern for the good  
10 of the community. Profit motive was really not our  
11 motivation. We were concerned with soil, health,  
12 life, et cetera.

13           We, ourselves as farmers, are held to a  
14 traceability, transparency in all our farming  
15 practices. And so again, we want to urge the Board  
16 that you also maintain these same standards.  
17 Foundations are important, going back to my  
18 beginnings, for openness, transparency, what is  
19 organic, and how the decisions are made.

20           I urge you to continue on these same  
21 foundations. Thank you very much.

22           CHAIR FAVRE: Thank you. Any questions?

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1 Thank you very much. Next up is Roy Brubaker followed  
2 by Manojit Basu.

3 MR. BRUBAKER: Thank you. I'm a farmer  
4 in Juniata County, Pennsylvania, one of the smallest  
5 counties in the state. But it has 66 certified  
6 organic farms, second only to Lancaster County which  
7 is two and a half times larger and with 25 times more  
8 population. We have an organic farm for about every  
9 360 people.

10 We are in the Appalachian region of  
11 Pennsylvania between the mountains. We are one of  
12 the poorer counties I would say. But these farms are  
13 doing well and are dependent, very much, on the  
14 integrity provided in the organic seal in marketing  
15 their products because their local populations are  
16 quite small.

17 Our own farm, certified since 1991,  
18 markets to State College in Harrisburg. Our  
19 clientele are largely well educated professors,  
20 professionals. And they are very concerned that  
21 government is seen as a vehicle of integrity in  
22 guarding the organic meaning.

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1 I myself am a second generation organic  
2 farmer with a 70 year memory back to the time when my  
3 parents decided to farm organically after 15 years of  
4 struggle trying to restore a nutrient depleted and  
5 badly eroded 120 acre farm.

6 In my lifetime, I've seen that farm come  
7 alive and pass on to the second generation with my  
8 brother becoming the farmer. I returned to farming  
9 sometime later and developed the vegetable, fruit,  
10 and poultry farm which was just turned over to the  
11 third generation of organic farmers. And I now work,  
12 since January 1st, as a laborer for my daughter who  
13 is managing this organic farm.

14 It sustains three families. It provides  
15 opportunities for several apprentices to learn the  
16 organic methods. And we've been very blessed to see  
17 many of them go on to find their own livelihood in  
18 providing organic vegetables to their communities.

19 My dad, later in his life, developed value  
20 added products from his grains and to begin to mill  
21 and market various flours, meals, and so on from the  
22 grains that were grown on the farm. And his product

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1 list, at the very top, he listed these words, the  
2 quality of a product is directly dependent on the  
3 integrity of its producer.

4 And he established integrity with his  
5 clientele by sharing freely all that he knew and was  
6 learning about his methods. And I think that needs  
7 to continue today. I support the work of Cornucopia  
8 and its advocacy for integrity.

9 CHAIR FAVRE: Thank you very much. Any  
10 questions? Thank you for coming. Next up is Manojit  
11 Basu followed by Colin Archipley.

12 DR. BASU: Thank you very much Madame  
13 Chair and the NOSB Board for this opportunity to talk  
14 on carrageenan. That's where I'll be presenting my  
15 comments. I'm Manojit Basu. I have a PhD in  
16 molecular biology with a focus on allergenicity and  
17 toxicity.

18 And I'm representing the Grocery  
19 Manufacturers Association here which is a trade  
20 organization representing the world's leading food,  
21 beverage, and consumer product companies.

22 What I want to start with is the history

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1 of carrageenan. And someone in the morning started  
2 with Robert Frost, The Road Not Taken. And  
3 carrageenan is something which has been used for  
4 centuries.

5 So what I would want to say is that's a  
6 road which has been taken for centuries. And are we  
7 questioning whether it's safe or not? I, as a  
8 scientist, am not concerned about the safety of the  
9 product.

10 As you can see on the screen here from  
11 regulatory approvals, whether we talk about the U.S.  
12 FDA or whether carrageenan is recognized, generally  
13 recognized as safe. Or whether the FAO/WHO body, the  
14 JECFA saying carrageenan is safe and the recent  
15 approval in 2015. It all shows that carrageenan is  
16 a safe product and there isn't a concern on the safety  
17 of the product.

18 Now coming to the technological need, why  
19 do we need carrageenan in organic product? It  
20 definitely has a technological need. The function it  
21 provides as a stabilizer is what is needed mostly in  
22 infant formula as well as in several dairy as well as

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1 processed meat food products.

2 And I did hear someone saying that, you  
3 know, bottle of milk can be finished by a baby in 15  
4 minutes. And I envy those because my kid doesn't want  
5 to drink it in 15 minutes.

6 So finally finishing, what I have seen is  
7 also some publications on the inflammation of the  
8 cells. And as a scientist and having researched on  
9 allergenicity, those could be allergenic reactions.  
10 And if there are sections of population who are  
11 allergenic to carrageenan, I totally understand that.

12 But my question, what I want to leave here  
13 with is, even peanuts are as known allergens. So what  
14 do we do? Do we ban peanuts from considered organic?  
15 Or we do we label them so that people who are allergic  
16 to peanuts avoid them? Thank you very much.

17 CHAIR FAVRE: Thank you. Any questions?  
18 Thank you for coming.

19 DR. BASU: Thank you.

20 CHAIR FAVRE: Next up is Colin Archipley  
21 followed by Karen Archipley.

22 MR. ARCHIPLEY: Good afternoon. I'm

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1 here today as both a soil and a container grower. And  
2 we've been certified in both our production systems  
3 since 2007. And I first want to address a few of the  
4 concerns that were brought up this morning.

5 One of which was a comparison of  
6 containerized production systems and biology  
7 compared to soils. For one, that's a moving target  
8 being that there's different soil types of  
9 productions as well as containerized productions.

10 But I can tell you from my experience and  
11 observation in our own systems, because our  
12 containerized systems produce an ideal environment  
13 for these organisms to thrive, we have extracted  
14 samples from the root zone and observed a higher  
15 biological content activity than in many of our soil  
16 samples. I should say field grown samples.

17 And we have observed everything from  
18 bacteria to protozoa, nematodes, fungi, worms, and  
19 much more in those systems.

20 Another issue brought up this morning was  
21 the use of off farm inputs compared to typical field  
22 grown production. Because these systems are

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1 containerized, that means none of the inputs are loss  
2 which means overall input use is reduced, becoming  
3 more sustainable.

4           Studies have also shown greenhouses use  
5 less energy overall than field grown production. And  
6 because its energy is typically derived on electrical  
7 form, many of those, most of that energy can be offset  
8 to alternative energy systems. And compared to field  
9 growers who are reliant on fossil fuels to fuel their  
10 farm machinery.

11           I'd encourage the Board to use an analogy  
12 not to be the coal miner that fears the solar industry.  
13 But to actually adopt and accept innovation that  
14 harnesses the power of biological and organic inputs.  
15 These systems disrupt current markets and that's bad  
16 for the status quo. And I'd like to talk to you about  
17 that in just a minute.

18           Another thing that was brought up this  
19 morning was the idea of filtering out organic matter  
20 from these systems. That just doesn't make sense.  
21 If you filter out organic matter from these systems,  
22 you can't feed the biology.           If you can't

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1 feed the biology, that means that processes like  
2 nitrification can't occur which means your plants  
3 aren't going to get the nutrients in order to thrive  
4 which means you'll fail.

5 The National Organic Program falls under  
6 the Agricultural Marketing Service. That means you  
7 have to put the consumers first, not the farmer. It's  
8 a marketing brand. Therefore, if you do studies  
9 about -- and you've heard these studies already today,  
10 that the use of container production is not a concern  
11 from the market.

12 And I want you to take this into account,  
13 if you exclude container production, who are you going  
14 to disenfranchise? You're going to disenfranchise  
15 the poor who can't afford rural agricultural land.

16 Furthermore, history shows that ag land  
17 only consolidates over time which means there are  
18 going to be fewer and fewer farmers if you don't allow  
19 these processes in the organic space.

20 Others who will be disenfranchised are  
21 beginning farmers, rural farmers, those who lack  
22 access to financial resources through no fault of

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1 their own to purchase rural land as well as already  
2 disadvantaged farmers as well as consumers and the  
3 environment.

4 We have dozens of container growers in the  
5 organic industry today only because these production  
6 systems allowed increasing yield with decreased space  
7 and land overall.

8 And ultimately, studies have shown these  
9 systems overall are more sustainable. And  
10 sustainability is not a belief system. It is  
11 measurable. We can measure the reduction in water.  
12 We can measure the reduction in overall inputs.  
13 Thank you.

14 CHAIR FAVRE: Any questions? Thank you  
15 very much. Next up is Karen Archipley followed by  
16 Nate Lewis who will be our last commenter for the day.

17 MS. ARCHIPLEY: Hi. My name is Karen  
18 Archipley and I'm co-founder of Archi's Acres and  
19 Archi's Institute for Sustainable Agriculture. We  
20 train beginning farmers, many just transitioning from  
21 the military. But also civilians who wish to choose  
22 agribusiness as a career.

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1           Many of our students have gone on to start  
2 their own farms. And most, if not all, have chosen  
3 containerized production due to the affordability of  
4 rural land which is unattainable due to the financial  
5 resources. And most, if not all, are farming without  
6 the use of -- I'm sorry.           Most would not be  
7 farming at all without the use of containerized  
8 production systems due to the productivity in limited  
9 spaces and limited inputs.

10           Science can show -- also many are in urban  
11 areas. Science can show biological processes  
12 conducted in containers are equivalent to field  
13 production. There's been a lot of misinformation  
14 about the use of synthetic and inert inputs.

15           Any grower, either in containers or the  
16 field using these inputs described in the  
17 misinformation, should be denied certification. And  
18 that process is already in place by our certifiers.  
19 Correct?

20           Archi's Acres has never used synthetic  
21 inputs, either approved or not, in the use of ozone,  
22 chlorine, chemicals, or that that the opponents have

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1 attempted to associate with our containerized  
2 production systems.

3 It's our hope that you will see through  
4 this misinformation. And instead, take some time to  
5 read the research and understand the facts. We are  
6 in 2016. We should not be afraid of innovation. In  
7 fact, our planet is insisting on it.

8 The container method was not raised as a  
9 concern in a recent OTA research consumer study or in  
10 the CCOF Blueprint for an Organic World which took 18  
11 months. I'm on the Executive Committee there. And  
12 I will tell you that that is true. This is a concern  
13 from growers, not consumers.

14 So let's embrace this new generation of  
15 organic growers. Let's be inclusive not exclusive.  
16 Happy to take any questions.

17 CHAIR FAVRE: Thank you. Any questions?  
18 Thank you very much.

19 MS. ARCHIPLEY: Thanks so much.

20 CHAIR FAVRE: Our final commenter today  
21 will be Nate Lewis.

22 MR. LEWIS: Well I know I'm the only thing

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1 standing between you all and the ACA meeting so I'll  
2 keep it brief. In 2010, NOSB passed the  
3 recommendation, 12 yes, 1 no, 2 absent, providing  
4 guidelines on how greenhouse and containerized  
5 production systems should operate to ensure  
6 compatibility with organic production principles.

7 This was the last opportunity for public  
8 comment on the issue of hydroponics and containerized  
9 production. And the Organic Trade Association  
10 supported that recommendation.

11 This recommendation included a specific  
12 definition for hydroponics, aeroponics, and  
13 containerized and greenhouse production. The NOSB  
14 recommended a prohibition on hydroponics and  
15 aeroponics as defined by the recommendation in  
16 organic production.

17 The recommendation included detailed  
18 guidance concerning organic greenhouse and container  
19 grown plant production. Lastly, the NOSB  
20 recommendation remained silent on the question of  
21 aquaponics specifically. But did recommend that  
22 growing media shall contain sufficient organic matter

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1 capable of supporting natural and diverse soil  
2 ecology.

3           OTA supports the work of the Hydroponic  
4 Task Force as it brings further clarification and  
5 definition to this range of production practices. We  
6 look forward to continued discussions on the topics  
7 of hydroponics and containerized production systems  
8 and will engage in any public process that occurs as  
9 a result of the NOSB task force on the issue.

10           The Board represents diverse farming  
11 systems and regions. As farming struggles with  
12 massive global challenges like climate change and  
13 water scarcity, we need to remember to look  
14 regionally, environmentally, look at regionally and  
15 environmentally adaptive systems. And strive for  
16 those systems to be consistent with organic  
17 principles. The grass ain't greener, the wine ain't  
18 sweeter either side of the hill.

19           Secondly, this Livestock Subcommittee is  
20 proposing some changes to annotations and use  
21 patterns related to synthetic parasiticides in  
22 organic livestock production. As we explained in our

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1 comments, OTA supports the work of the subcommittee  
2 and particularly pleased to see the expansion of use  
3 to sheep for wool.

4 We're encouraged by hearing earlier you  
5 did consider off label use when deliberating on your  
6 recommendation. And we appreciate that you'll be  
7 bringing forward additional Board work on better  
8 defining emergency use of parasiticides as it is the  
9 most effective way to ensure these products are used  
10 in the most judicious manner possible.

11 You've all read our comments and perused  
12 our NOSB booklet. And I welcome any questions or  
13 clarifications you may have for OTA on our comments  
14 and positions. Thank you.

15 CHAIR FAVRE: Thanks Nate. Any  
16 questions?

17 MR. LEWIS: MPEs? Come on. No? All  
18 right. Thanks everybody.

19 CHAIR FAVRE: Thank you. Okay.  
20 Everybody, we are adjourned for the day. And we will  
21 be starting back here tomorrow at 8:30. Thank you  
22 very much and you all have a nice evening.

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2  
3  
4

(Whereupon, the above-entitled matter  
went off the record at 6:18 p.m.)

UNITED STATES DEPARTMENT OF AGRICULTURE

+ + + + +

NATIONAL ORGANIC STANDARDS BOARD

+ + + + +

SPRING 2016 MEETING

+ + + + +

TUESDAY  
APRIL 26, 2016

+ + + + +

The Board met in the Blue Room of the  
Omni Shoreham Hotel, 2500 Calvert Street, N.W.,  
Washington, D.C., at 8:30 a.m., Tracy Favre, Chair,  
presiding.

PRESENT

TRACY FAVRE, Chair  
TOM CHAPMAN, Vice Chair  
HAROLD AUSTIN  
CARMELA BECK  
HARRIET BEHAR  
A-DAE ROMERO-BRIONES  
JESSE BUIE  
LISA DE LIMA, Secretary  
EMILY OAKLEY  
SCOTT RICE  
JEAN RICHARDSON  
DAN SEITZ  
ZEA SONNABEND  
ASHLEY SWAFFAR  
FRANCIS THICKE

ALSO PRESENT

## STAFF:

MICHELLE ARSENAULT, Advisory Board Specialist,  
National Organic Program  
LISA BRINES, National List Manager, National  
Organic Program  
EMILY BROWN ROSEN, Agricultural Marketing  
Specialist, National Organic Program  
PAUL LEWIS, Director, Standards Division,  
National Organic Program, USDA  
MILES McEVOY, Designated Federal Officer, Deputy  
Administrator, National Organic Program

PANELISTS-EMERGING TECHNIQUES IN AGRICULTURAL  
BIOTECHNOLOGY:

DAVID GOULD, International Federation of Organic  
Agricultural Movements (IFOAM)  
MICHAEL HANSEN, Consumers Union  
RALPH SCORZA, Agricultural Research Service, USDA  
WILLIAM TRACY, University of Wisconsin-Madison

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1 P-R-O-C-E-E-D-I-N-G-S

2 8:31 a.m.

3 CHAIR FAVRE: (presiding) Good  
4 morning. Thank you for joining us for the second  
5 day of our meeting today.

6 We are going to continue with public  
7 comments this morning. Okay. Our first speaker  
8 will be Kent Henderson, followed by Donald Bliss  
9 on deck.

10 (Pause.)

11 DR. HENDERSON: Good morning.

12 CHAIR FAVRE: We are waiting for the  
13 timer. So, just bear with us for a moment.

14 (Pause.)

15 DR. HENDERSON: Good morning again.

16 The purpose of my comment today is to  
17 encourage the NOSB to approve a two-day  
18 milk-withholding period for dairy cattle treated  
19 with fenbendazole, as recommended by the Livestock  
20 Subcommittee.

21 And also, the second purpose is to ask  
22 for the elimination of continued use of ivermectin.

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1                   My name is Kent Henderson. I'm a  
2 long-time dairy-exclusive veterinarian. I have  
3 treated many parasitized herds with very good  
4 results using whole-herd fenbendazole treatments.

5                   Fenbendazole peak level at 24 hours is  
6 actually 10 times less than the FDA safety level.  
7 So, a two-day milk-withholding time on a product  
8 that has zero-day withhold product from the FDA can  
9 assure the organic consuming public that the milk  
10 is a safe product from healthy cattle.

11                  Fenbendazole is a superior product to  
12 use on organic cattle because it is not absorbed  
13 by mammalian tissue. It accumulates in the  
14 parasite and not in the cow.

15                  If you look at this chart, at the graph,  
16 you will see the red curve is fenbendazole. You  
17 will see how rapidly it is absorbed, and it is out  
18 of the animal totally in 72 hours. Whereas, in  
19 comparison, ivermectin, it takes seven to eight  
20 days to reach peak killing level and, then,  
21 continues to be excreted for 60 days. This is  
22 leading to resistance problems in using these

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1 products and, also, a more complete kill of dung  
2 beetles on pasture with the 60-day exposure.

3 On this graph you will see how effective  
4 fenbendazole has been after over 25 years' use.  
5 The column on the right indicates that, overall,  
6 it has got still over 98-percent success rate.

7 And then, in the same study, if you  
8 compare Ivomec- and ivermectin-type products, you  
9 will see how fast the percent of efficacies drop  
10 down to 58 percent.

11 This is a pasture where buffalo run that  
12 have been treated with Ivomec, with Eprinex, and  
13 you will see all the fecal pats that have not been  
14 broken down by dung beetle. Dung beetle is very  
15 important in bringing nutrients into the soil,  
16 improving soil health. This is a strong reason to  
17 discontinue the use of ivermectin.

18 After finding 35 of her 65 cattle  
19 coughing and sick, this producer called our  
20 practice after she had used an approved product  
21 that had been advised by her certifier. We took  
22 samples. Cornell Lab diagnosed it as lungworm,

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1 and I prescribed the use of Safe-Guard pellets to  
2 these cattle. They recovered, but there was a huge  
3 financial loss to the farm, not from dead cattle  
4 and loss of production, but from having to operate  
5 on non-organic prices, and the herd loss, \$55,000  
6 in milk sales in a three-month period because of  
7 the milk withhold.

8 And I guess I am ready for questions.

9 CHAIR FAVRE: Any questions?

10 Francis? Then, Harriet.

11 MEMBER THICKE: Thank you for that  
12 presentation.

13 Can you tell us a little bit about,  
14 since you are veterinarian, about off-label use of  
15 things like garcidicides because some of the  
16 garcidicides aren't labeled I think for goat and  
17 sheep? Can you explain how that works?

18 DR. HENDERSON: My practice is limited  
19 to dairy cattle. The following speaker is very  
20 well prepared to speak to that. But I can tell you  
21 with dairy cattle the off-label use would be in this  
22 lungworm-infested herd. I always prescribe

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1 coming back again six weeks later and doing a repeat  
2 treatment. And I do that also with my strategic  
3 deworming.

4 The reason I think it is important to  
5 have a veterinarian involved in these strategic  
6 deworming processes is because we offer the  
7 diagnoses. We are at the herd every month. We are  
8 monitoring what is going on, and we are the stimulus  
9 to the dairy producer to stay on the product and  
10 the practice until his pastures are actually  
11 cleaned up, you know, very significantly on eggs,  
12 parasite eggs.

13 CHAIR FAVRE: Harriet?

14 MEMBER BEHAR: Our rule does have for  
15 emergency use only. So, we are hoping that it is  
16 not going to be used pervasively. But I am a little  
17 concerned about, especially for sheep and goats,  
18 that maybe only having one parasiticide, if we  
19 remove the ivermectin, not that I like ivermectin,  
20 but I am wondering about resistance to fenbendazole  
21 and moxidectin. I know we have seen that with  
22 ivermectin because so much of its pervasive use.

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1 I am wondering if there is any of that happening  
2 with those other two parasiticides.

3 DR. HENDERSON: All right. Well, as I  
4 showed in my tables up there with FBZ,  
5 fenbendazole, it has been in use for over 25 years.  
6 That study demonstrated very clearly that  
7 fenbendazole is continuing to have over 98-percent  
8 effectiveness. That is in, I think it is a  
9 400-herd study. So, that is a really powerful  
10 study to defend that FBZ is maintaining and the  
11 others are dropping, the others, as you could see  
12 in the table.

13 This is all in my written comments, by  
14 the way. There is a lot more in my written comments  
15 than what I am able to say today. But it is very  
16 clearly written out there, and it shows how the  
17 efficacy is dropping.

18 As far as if I had to choose, I am not  
19 really prepared to say too much about Cydectin. I  
20 don't use it much in my practice. But I know that  
21 it is in the same class as the Ivomec. I think it  
22 is more effective. I think if you keep those two

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1 in the mix and get rid of Ivomec, I think you are  
2 going to have two really good dewormers on hand for  
3 emergency situations.

4 But I would caution you not to ignore  
5 the strategic deworming and the preventive effects  
6 that the veterinary practice can provide to the  
7 organic producer. We would really like to get  
8 ahead and stimulate the immune system of these  
9 animals at the peak when they really need it. The  
10 cow really needs her peak performance on her immune  
11 system the day she freshes.

12 And if I put fenbendazole in front of  
13 her, I know that I see improved production,  
14 improved fertility. But, if the producer is  
15 expected to live on non-organic price for the first  
16 90 days of her lactation, it takes all advantages  
17 away and it puts the animal at risk of secondary  
18 invaders, other bacteria and other viruses  
19 affecting the animals. So, I really would like to  
20 have that in the organic producers' toolbox.

21 CHAIR FAVRE: Jean?

22 MEMBER RICHARDSON: So, Dr. Henderson,

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1 you have a lot of this in your written comments,  
2 as I recall, which we have all looked at. So, you  
3 see this as being an animal welfare issue, in  
4 addition to just the cost involved in the milk loss  
5 for the 90-day withholding?

6 DR. HENDERSON: Yes. I think the next  
7 speaker will indicate to you the effect it has on  
8 the animals. I think that organic production has  
9 a great reputation as far as promoting animal  
10 welfare and is trying to set itself apart in that  
11 regard.

12 In our parasite evaluation clinics,  
13 every organic farm that we have tested, we find  
14 significant worm loads. We have got 22 organic  
15 farms. We have tested 15 of them, and in every one  
16 of them we find parasite eggs, and this strategic  
17 deworming would work.

18 I think that it is definitely these  
19 animals are being asked to work at a real detriment  
20 to their immune system, and it leaves them open to  
21 infection and they are living with an anemia. They  
22 are not living in a thrifty state. And I really

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1 don't think that that is an image that organic wants  
2 out there.

3 CHAIR FAVRE: Francis?

4 MEMBER THICKE: What about  
5 alternatives, natural alternatives? I know there  
6 is a company in Pennsylvania, a company in  
7 Wisconsin that have some things. I have used them  
8 in young stock, very young stock, and found good  
9 results.

10 DR. HENDERSON: Okay.

11 MEMBER THICKE: But do you recommend  
12 some of those?

13 DR. HENDERSON: I haven't seen the type  
14 of research on products like that to really give  
15 me confidence to go in and use them. I can tell  
16 you that the photo I showed of the Jersey dairy cow  
17 that had the lungworm, she had had aloe vera  
18 pellets. She had had diatomaceous earth. And  
19 then, there was one other product she had had. And  
20 the producer tried for 10 days to use those  
21 products, and we had to resort to that.

22 I have used a few approved products for

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1 external parasite control which I had really,  
2 really good results with, with some louse  
3 infestations. But, as far as internal parasites  
4 are concerned, this is the product that I have had  
5 the best results with.

6 I'm not denying that it can't happen,  
7 but I would just like to see more research before  
8 I would go very far with it.

9 CHAIR FAVRE: Any other questions?

10 (No response.)

11 Thank you very much.

12 DR. HENDERSON: All right. Thank you.

13 CHAIR FAVRE: Next up is Donald Bliss,  
14 with Eugene Ung on deck.

15 DR. BLISS: Yes. Thank you. It is a  
16 pleasure to speak today.

17 I, too, support the fenbendazole,  
18 moxidectin in organic milk with a two-day  
19 withdrawal and, also, see that ivermectin kills the  
20 dung beetle and has a high level of blood levels  
21 that last for about 35-40 days.

22 I am a veterinary parasitologist out of

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1 Wisconsin. We have got a parasite lab there. We  
2 do thousands of samples every month from all over  
3 the country of all nature.

4 We have these people who can go into our  
5 website: how to collect samples, how to send  
6 samples. We also go out around the country. I  
7 spent every week for the last six-seven weeks, we  
8 just travel from all over the country and set up  
9 these parasite clinics and monitor parasite  
10 problems that we can see across the country. So,  
11 we have a good feeling in all 50 states.

12 We use a Modified Wisconsin Sugar  
13 Flotation, and that was designed for lactating  
14 dairy cows. It is really the only technique that  
15 gives you a great value on it.

16 We look at parasite control as kind of  
17 the keystone to everything else we are doing with  
18 these animals. If these animals are  
19 parasite-free, they convert better; their vaccines  
20 work better; they have got better feed conversion,  
21 better hair coat, and so forth.

22 We also look at that immune system.

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1 This is a review of publications from Iowa State,  
2 170 publications. They looked at five different  
3 technologies, ionophores, implants, growth  
4 promotants. And deworming returned the greatest  
5 value to the producer of all the technologies.

6 We look at what these parasites do.  
7 They live off the cattle. They shed eggs back in  
8 the environment. This process has been going on  
9 for thousands of years.

10 What we try to do with strategic-timed  
11 deworming is prevent the shedding of eggs back on  
12 that pasture. If that pasture has become  
13 infected, there is nothing you can do with it. You  
14 have to prevent it. So, we believe in preventative  
15 treatment.

16 To show what these parasites do to the  
17 animals themselves, you can see that the pastures  
18 that were dewormed, you see those cattle are up  
19 there grazing. They feel well. These are all  
20 blind studies, but we can drive out and we can see  
21 the cattle laying down. We know which cattle are  
22 the wormy cattle because they don't feel well; they

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1 are not up grazing.

2 In this particular study there was 60  
3 pounds difference between the  
4 strategically-dewormed cattle and the worming  
5 cattle. It comes from here. These parasites go  
6 into this gastric gland. They form a mucous plug.  
7 They go through a double MALT. They crush the  
8 cell.

9 That cell is produced in HCl. So, what  
10 happens to that pH in that gut is that the pH goes  
11 up. As the pH goes up, fiber digestion drops. As  
12 fiber digestion drops, the animal is full, so that  
13 material is not moving down the GI tract.

14 This is also a very vascular area. So,  
15 the immune system is fighting off these parasites.  
16 It is sending down mast cells, what we call Th2  
17 cells, to fight off these parasites. By doing  
18 that, it --

19 (Timer rings.)

20 Am I done?

21 (Laughter.)

22 CHAIR FAVRE: That is the time, but why

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1 don't you finish that sentence?

2 DR. BLISS: Okay. It suppresses the  
3 immune system and is directly related to the worm  
4 burden. The higher the worm burden, the more we  
5 see a problem.

6 So, for example, we seldom see  
7 coccidiosis. Pinkeye, if we have got pinkeye  
8 problems, we oftentimes will put fenbendazole in  
9 the mineral and treat these cattle on pasture, and  
10 the disease will go away, because the immune system  
11 can fight it off by itself.

12 CHAIR FAVRE: Great.

13 DR. BLISS: Sorry.

14 CHAIR FAVRE: Emily?

15 MEMBER OAKLEY: Thank you.

16 So, are you suggesting that it needs to  
17 be used more preventatively than just on an  
18 emergency basis? And how would you define an  
19 emergency basis?

20 DR. BLISS: Well, I think from an  
21 animal welfare standpoint we want preventative  
22 basis because I think, as you saw in that picture,

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1 these animals don't feel well. And you don't want  
2 to wait until the animal is full of worms, then you  
3 try to treat them. That is why some of our  
4 dewormings don't work. If you use them at a night  
5 where you prevent the parasite, then you have less  
6 problems and you respond.

7 We can show you some feedlot trials, and  
8 so forth, where animals that were strategically  
9 dewormed did much better than those that they  
10 brought them in wormy, then treated them in the  
11 feedyard. The ones that were treated on pasture  
12 went through with much less disease problems, less  
13 health problems.

14 CHAIR FAVRE: Jean?

15 MEMBER RICHARDSON: Dr. Bliss, as you  
16 know, in organic farming we can only use the  
17 parasiticides in an emergency situation. So, we  
18 can't, of course, go ahead and do any kind of the  
19 strategic deworming that can take place on a  
20 conventional farm.

21 So, in the work that you have done on  
22 organic farms --

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1 DR. BLISS: Yes.

2 MEMBER RICHARDSON: -- what have you  
3 seen to be the most useful ways to reduce parasite  
4 levels in the management practices of the dairy  
5 farmers, for instance?

6 DR. BLISS: Well, what we are doing is  
7 we base it on fecals. When the fecals come in,  
8 those are the ones that are telling us that, first  
9 of all, where there is smoke, there is fire; where  
10 there are worm eggs, we have got worms in the  
11 cattle.

12 And then, we can go in and break that.  
13 But it becomes a herd disease. So, once you  
14 identify you have got a heavy worm burden, we can  
15 go through and clean up the entire herd. That is  
16 what this milk withdrawal will allow us to do, if  
17 we can.

18 CHAIR FAVRE: Harriet?

19 MEMBER BEHAR: So, I am just wondering,  
20 when we are wrestling with defining what emergency  
21 use is, would we tie it to fecal samples and would  
22 lungworms show up in a fecal sample?

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1 DR. BLISS: Well, with a lungworm, we  
2 have to run a special test called Baermann test.  
3 But, usually, you will seldom ever see a lungworm  
4 problem without a GI parasite worm problem. So,  
5 your fecal will pretty well tell you whether or not  
6 you have got other issues. Because both Cydectin  
7 and fenbendazole control lungworm, the fecal test  
8 will give you that. You may not even have to take  
9 the next step for doing a Baermann for the lungworm.

10 MEMBER BEHAR: Are there threshold  
11 levels on fecal samples like by weight of animal  
12 or that sort of thing, where you decide this is a  
13 critical time to deworm the animal?

14 DR. BLISS: It is a complicated answer,  
15 but it is based on the time of the year. For  
16 example, if you are going into the winter with a  
17 high worm burden, you're not going to get any new  
18 parasites in there. So, a deworming then will  
19 leave that animal, render that animal worm-free  
20 until we have spring grass. So, there are some  
21 timings that you can do that actually help promote  
22 better health of the animals, and we do it through

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1 a fecal, yes.

2 CHAIR FAVRE: Francis?

3 MEMBER THICKE: What about young  
4 cattle versus adults? Often, people say adults  
5 are more resistant. And one veterinarian once who  
6 wasn't real big on worming told me, he said, "You  
7 know, we are trying to build resistance into our  
8 herd. We don't want to be worming them all the time  
9 because we are not going to get that built up."

10 DR. BLISS: Yes, and you do want to have  
11 some exposure to the parasite. And so, one of the  
12 things, even with our strategic time deworming, we  
13 are allowing that. We are preventing a high  
14 buildup, but we are leaving a refugia on the pasture  
15 that will allow those animals to stimulate their  
16 immune system. So, we are really preventing it,  
17 but we are not eliminating the parasites.

18 And even in other species, you know,  
19 like sheep and goats, we come in with a fenbendazole  
20 and follow up by a Cydectin. Those two products  
21 are the best of their class of compounds, and that  
22 will prevent those parasites from overwhelming

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1           them and clean them up.

2                       CHAIR FAVRE:    Dan?

3                       MEMBER SEITZ:        I    imagine    that  
4           management practices vary among organic dairy  
5           producers.  Are there any particular management  
6           practices you have observed that are helpful for  
7           preventive care in this area?

8                       DR. BLISS:    Sure.    From a parasite  
9           standpoint, one of the things we can do is alternate  
10          our pastures or moving cattle onto like, for  
11          example, take a cot of hay and move cattle onto that  
12          pasture.  That is a worm-free pasture.  So, we can  
13          time our dewormer around when we use our pasture  
14          based on seasonal.  I mean, it is a little bit  
15          complicated, but as long as no cattle have been on  
16          that pasture for the first three months of the  
17          grazing, that is a parasite-free area.  So, we can  
18          move.  There are a few things we can do like that  
19          to help get them out of the face of the parasite  
20          challenge.

21                      CHAIR FAVRE:    Jean?

22                      MEMBER RICHARDSON:  Dr. Bliss, again,

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1 back to this issue that Harriet brought up on  
2 emergency use because, obviously, there is a lot  
3 of concern that, if -- and, hopefully, when -- we  
4 pass these recommendations, that there may be an  
5 unnecessary increase in the use of parasiticides,  
6 just because they are not going to have the long  
7 milk withholding on their income.

8 But we want to be sure that the animals  
9 have high levels of animal welfare. What we are  
10 going to be doing after this meeting is trying to  
11 look at a definition of what constitutes an  
12 emergency situation. And so, should we, for  
13 example, be requiring that all the organic farmers,  
14 as part of their organic system plan, should have  
15 fecal cell counts, I mean fecal parasite counts as  
16 part of their management plan, that they show not  
17 only the pasture management that Dr. Seitz was  
18 mentioning, but also fecal counts, other aspects  
19 like that, that would allow us to say, yes, for  
20 sure, this is an animal welfare situation we need  
21 to move to using the parasite control?

22 DR. BLISS: Absolutely. Every herd is

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1 going to be different, and every herd you can  
2 profile with the fecals. The fecal count really  
3 is not measuring how many parasites are in that  
4 animal as a rule, depending on what we are seeing.  
5 But what it does do is predict, it is a predictive  
6 value of what is going out on that pasture.

7 So, we can quickly say, if cow was  
8 putting out 10 eggs, that is 1500 eggs in a pound  
9 of manure. She is putting out 40 pounds of manure.  
10 That's 60,000 a day is going on that pasture. If  
11 she is putting out 80 pounds, you can calculate  
12 that. So, it is a predictive value of where that  
13 herd is going to be, yes.

14 CHAIR FAVRE: Francis, did you still  
15 have a question?

16 MEMBER THICKE: Yes. Back to that  
17 question of off-label use --

18 DR. BLISS: Yes.

19 MEMBER THICKE: -- for fenbendazole  
20 and moxidectin.

21 DR. BLISS: Yes.

22 MEMBER THICKE: They are not all

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1 approved for goat, sheep, and cattle, are they?

2 DR. BLISS: No.

3 MEMBER THICKE: And how does that work?

4 DR. BLISS: Well, we had an operation  
5 in Kansas that they lost 3,000 head of sheep due  
6 to Haemonchus, the barber pole worm. What we did  
7 is we contacted their local vet. We got him to  
8 script Safe-Guard in there, fenbendazole in there.  
9 Sorry. And we had it run for a three-day. We came  
10 back on moxidectin on the fourth day. He scripted  
11 it, allowed it. So, it was very easy to solve.

12 We had the fecals to show and the death  
13 rates to show that we had a severe problem. We were  
14 able to stop that disease loss.

15 MEMBER THICKE: What about withdrawal  
16 time? I mean, because there's no established  
17 withdrawal time if it is not approved. And why is  
18 it not approved for some animals? Is it because  
19 they haven't submitted the requests through FDA or  
20 because --

21 DR. BLISS: Well, the fenbendazole,  
22 actually, it is the most widespread use. It is

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1 cleared in poultry, swine, zoo animals. It  
2 doesn't have a sheep label because of the barber  
3 pole worm. When that barber pole worm goes to a  
4 high level, it goes inhibited, into an arrested  
5 development. Safe-Guard destroys the parasite's  
6 ability to metabolize energy. When it is  
7 inhibited, it is not metabolizing. So, what we use  
8 it is we treat them with fenbendazole to activate  
9 it out of the tissues, and we use the moxidectin  
10 to kill it.

11 But that is the reason it has not been  
12 in sheep. It is approved in goats and in cattle,  
13 you know, a wide range, but they didn't pursue  
14 because of the big Haemonchus problem.

15 CHAIR FAVRE: Jean?

16 MEMBER RICHARDSON: On the question of  
17 fiber, Dr. Bliss, one of the things that we are  
18 recommending is that it would be okay to use  
19 fenbendazole, for example, in sheep in such a  
20 manner that the wool could be still sold organic.

21 DR. BLISS: Yes.

22 MEMBER RICHARDSON: As I understand it

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1 from the science and from your presentation today,  
2 because the fenbendazole goes to the parasite, it  
3 is not going to end up in the wool of the sheep.

4 DR. BLISS: That's correct.

5 MEMBER RICHARDSON: Is that correct?

6 DR. BLISS: Yes. Yes.

7 MEMBER RICHARDSON: Okay.

8 DR. BLISS: It is a very large  
9 molecule. It has an affinity for the parasites.  
10 The parasites can absorb it, ingest it; they can't  
11 excrete it. When they have enough, it destroys  
12 them. It has no effect on the tissues until we just  
13 found out two years ago it does it affect tumors.  
14 So, anything that is rapidly developing, it will  
15 shut it down. But, basically, that product will  
16 not be absorbed into the wool.

17 CHAIR FAVRE: Any other questions?

18 (No response.)

19 Thank you, Dr. Bliss.

20 DR. BLISS: Thank you.

21 CHAIR FAVRE: Next up Eugene Ung,  
22 followed by John Ashby on deck.

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1 MR. UNG: Hi. Good morning.

2 I'm here to give some comments about  
3 carrageenan. My name is Eugene Ung. I'm the CEO  
4 of Best Formulations. We are a contract  
5 manufacturer of dietary supplements located in  
6 southern California. We are an FDA-licensed,  
7 GMP-approved drug-licensed manufacturer of  
8 softgels, tablets, capsules, powders, and teabags.

9 Now carrageenan has been commonly used  
10 for decades in our industry as a thickening and  
11 stabilizer in powder formulations. More  
12 recently, we have been using carrageenan as a  
13 gelatin alternative in the manufacture of softgels  
14 and capsules in our industry.

15 Softgels are a very popular dosage form  
16 for encapsulating nutritional oils. Prior to  
17 2006, nearly all softgel capsules sold were made  
18 from animal gelatin sources, such as bovine,  
19 porcine, or fish. Non-animal, vegetarian softgel  
20 alternatives had been developed, but none were  
21 suitable for large-scale, mass application. So,  
22 along with FMC, we pioneered the development of the

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1 first commercially-viable, non-animal softgel  
2 capsule in the dietary supplement industry.

3 The vegetarian softgel has been  
4 somewhat of a Holy Grail of softgel manufacturing  
5 for years. The carrageenan provides structural  
6 integrity for the soft capsule shell. Other  
7 biopolymers have been tried, but did not have the  
8 properties required to make a good softgel capsule.

9 Over the years, other companies have  
10 attempted to manufacture vegetarian softgels using  
11 other biopolymers such as potato starch,  
12 alginates, et cetera, without success. At this  
13 point, carrageenan is really the only natural  
14 biopolymer that has similar characteristics to  
15 animal gelatin.

16 Over the past several years, we have  
17 built a non-animal, vegetarian softgel market to  
18 meet the demands of vegetarians and other  
19 conscientious consumers looking for organic,  
20 healthy ingredients, offering them a non-animal  
21 alternative to traditional softgel capsules.

22 If carrageenan can no longer be used in

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1 organic food or food in general, we could see the  
2 entire vegetarian, non-animal softgel market  
3 disappear, as there is no other  
4 commercially-viable, non-animal alternative to  
5 animal-based gelatins.

6 Safety is of utmost importance in our  
7 industry, and all materials used in our  
8 manufacturing business must be safe for human  
9 consumption. Carrageenan has been used as a  
10 natural ingredient in the food industry for decades  
11 and has been deemed safe by many organizations,  
12 such as WHO, FDA, et cetera.

13 We understand that carrageenan has even  
14 been approved for use in infant formulas, and  
15 infants are the most susceptible and vulnerable  
16 individuals. The, quote/unquote, "research"  
17 indicating that carrageenan can cause tumors or  
18 cancer was based on synthetic, manmade,  
19 short-chain, low-molecular weight called  
20 poligeenan, often referred to as degraded  
21 carrageenan.

22 So, for carrageenan to function in food

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1 applications, including our application, it has to  
2 be the long-chain, the way it is found naturally.  
3 Consumers are looking for natural, organic,  
4 healthy ingredients.

5 (Timer rings.)

6 In the world of softgel manufacturing,  
7 carrageenan is the only ingredient that fulfills  
8 the functional requirements and consumer demands.

9 Thank you.

10 Any questions?

11 CHAIR FAVRE: Questions?

12 Harold?

13 MEMBER AUSTIN: As part of your  
14 manufacturing process protocol doing the research  
15 to look at the development of your softgel and  
16 stuff, how extensive was the human and the  
17 environmental health impact research that you did  
18 as part of your formulation process?

19 MR. UNG: Well, we are a contract  
20 manufacturer. We respond to our customer demands  
21 and requirements. So, we look more technically at  
22 the ability to manufacture products.

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1           Sustainability is an important issue,  
2           and our understanding is that carrageenan, the  
3           specific species used is a very sustainable  
4           product. But I wouldn't say it is at the top of  
5           the list, so to speak, with our particular  
6           customers, but it is something that they ask about.

7           CHAIR FAVRE: Lisa?

8           MEMBER DE LIMA: Hi.

9           MR. UNG: Hello.

10          MEMBER DE LIMA: So, in the beginning  
11          of your presentation, you said something to the  
12          effect of a large-scale manufacturing, something  
13          about the volume which was necessitating the  
14          carrageenan for softgel vegetarian caps?

15          MR. UNG: Yes. Correct.

16          MEMBER DE LIMA: Because my  
17          understanding is there are a number of softgel  
18          vegetarian caps that don't contain carrageenan.

19          MR. UNG: Well, okay, so it is really  
20          in the technical application. So, for example,  
21          some of the starch alternatives, you can only make  
22          a small capsule. Once you get into the larger

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1 sizes, it just doesn't work. The stability is not  
2 there. It leaks. It is fragile. So,  
3 carrageenan is the only substance that we can use  
4 to give us the size range from very small capsules  
5 to very large capsules.

6 MEMBER DE LIMA: So, would one  
7 alternative for a manufacturer be to produce  
8 smaller capsules without the carrageenan and  
9 increase the dosage, the number of caps a person  
10 would need to take to get their dose per day?

11 MR. UNG: Sure. I mean, yes, I think  
12 these are driven by consumer demands. Well, from  
13 what our customers are telling us, they would  
14 prefer one or two softgels rather than five-six  
15 serving size.

16 CHAIR FAVRE: Thank you very much.

17 Oh, sorry. Harriet?

18 MEMBER BEHAR: Are there any currently  
19 certified organic products that are using your  
20 capsules?

21 MR. UNG: Currently, not to our  
22 knowledge as a finished product. The reason being

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1 is another ingredient that is used in the  
2 manufacture of these capsules, I don't believe it  
3 is organic-certified, but I think it is something  
4 that we are working on.

5 There are a lot of questions that  
6 revolve around that. You know, can the finished  
7 product be organic-certified? And that is  
8 something that we are working towards.

9 CHAIR FAVRE: Anybody else?

10 (No response.)

11 Thank you very much.

12 MR. UNG: Thank you.

13 CHAIR FAVRE: Next up is John Ashby,  
14 followed by Peter Barbera on deck.

15 MR. ASHBY: I'm John Ashby. I have  
16 three comments.

17 My first haiku: SiO<sub>2</sub>, yes.

18 (Laughter.)

19 Or we make no more solids; lysols don't  
20 fix all.

21 We invented organic syrup solids  
22 decades ago. No silicon dioxide, no more organic

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1       syrup solids.  Written comments and other comments  
2       given earlier explain why.

3               The next haiku:  sanitizers more; FSMA  
4       means it "or you're closed".  No excuses at all.  
5       Or, the sub-haiku:  grow up, organics, embrace our  
6       strengthened presence or we could disappear.  
7       Don't wait; don't dawdle; approve sanitizers.

8               I live in Davis where there is UC Davis.  
9       The campus is completely supported to such an  
10      extent by GMO funding.  I know these people.  
11      They, frankly, expect us to self-destruct,  
12      consider us no threat because of that expectation.  
13      And eliminating sanitizers is probably one of the  
14      quickest ways to take us down.

15              WMMWUTD, okay, that is kind of long.  
16      It's:  what would Monsanto want us to do?  Every  
17      time we do something like eliminate a sanitizer,  
18      we are doing the devil's -- I mean Monsanto's work.

19              Now I need to respond.  I was offended  
20      yesterday by the use of a four-letter word.  To  
21      respond, I have to say it.

22              My final haiku, well, sort of.  Here it

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1 comes: OMRI's not evil. Substance evaluation,  
2 it's what OMRI does.

3 We had OMRI up on the projector, and  
4 evaluating substances was presented as a negative.  
5 The money we bring in was presented as something  
6 almost evil. I'm here to confess, yes, we bring  
7 in money -- to pay, reasonably and with good  
8 benefits, our staff who evaluates materials for the  
9 organic community with, I might add, total  
10 transparency of process.

11 All the work I have done, gladly, for  
12 OMRI has been for zero money. Okay, not completely  
13 gladly, but a free glass of wine here and there.

14 (Laughter.)

15 P.S., Peggy, OMRI's CEO, is also not  
16 evil. And if she was, frankly, that would be my  
17 fault since I have been --

18 (Mr. Ashby's cell phone rings.)

19 There's my barking dogs (referring to  
20 phone ring).

21 (Laughter.)

22 Since I have been multiple times Board

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1 Chairman, frankly, if she and OMRI were not  
2 exquisite, it would be my fault, and my integrity  
3 would have required me to correct it. Instead, I  
4 get to pretend to be worthy of credit for what we  
5 do.

6 Final haiku: organic must grow or we  
7 haven't done our jobs, so we must be wise.

8 CHAIR FAVRE: Questions?

9 Since it's impossible to follow  
10 that -- (laughter) -- it is difficult for us to ask  
11 a question.

12 Jean? The only one brave enough to ask  
13 a question.

14 MEMBER RICHARDSON: I can't ask a  
15 question because I only have iambic pentameter.

16 (Laughter.)

17 CHAIR FAVRE: Harold?

18 MEMBER AUSTIN: Point of order. A  
19 question will have to be in the form of a haiku?  
20 Okay, then I'm going to retract my question.

21 (Laughter.)

22 John, eloquent, as always.

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1           Could you explain the value to all of  
2           us of having multiple sanitizers and why  
3           restricting the number of sanitizers that we  
4           currently have available is such a detriment to the  
5           growth of organics as we move forward?

6           MR. ASHBY: Yes. You know, different  
7           things just work differently in different  
8           situations. And the days of cutting corners on  
9           this kind of stuff are just gone. I mean, my God,  
10          we had a melon farmer go to jail for insufficiently  
11          sanitizing their melons. I mean, there just are  
12          no excuses with this, with FSMA now.

13          It is getting to the point where, if the  
14          tools get too thin, I could imagine a situation  
15          where you are getting an FDA inspection, which  
16          frightens us a little less than others because FDA,  
17          for other things that we do, is in our plant every  
18          single day by design.

19          But they could look and say, "We know  
20          this isn't a sufficient way to deal with it. You  
21          have to do it differently."

22          We could say, "Well, organic doesn't

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1 let us use that tool."

2 And they could say, "Then you can't make  
3 it."

4 I mean, things just have different  
5 functionalities, and you have got to have enough  
6 tools to deal with it or we are doing Monsanto's  
7 work.

8 CHAIR FAVRE: Thank you very much.

9 (Applause.)

10 Next up is Peter Barbera.

11 MR. BARBERA: Barbera.

12 CHAIR FAVRE: On deck is Garth Kahl.

13 MR. BARBERA: Thank you and good  
14 morning. I'm not going to try to follow that at  
15 all.

16 My name is Peter Barbera, and I'm the  
17 General Manager of Shoreside Organics in  
18 Narragansett, Rhode Island. I come to you with our  
19 petition to add squid and squid byproducts  
20 stabilized with acid to the National List.

21 I would like to address a concern  
22 regarding the health of the squid fishery. The

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1 East Coast squid fishery is regulated under the  
2 Magnuson-Stevens Act and controlled by the  
3 National Marine Fisheries Service, the  
4 Mid-Atlantic Fishery Marine Council, and in Rhode  
5 Island, the Department of Environmental  
6 Management.

7 It is a highly-regulated fishery and  
8 has been for many years. The National Marine  
9 Fisheries Services has stated that overfishing is  
10 not occurring in the East Coast squid fishery and  
11 it has not exceeded its quota for the past 10 years.

12 The economics of squid fertilizer make  
13 it not possible to develop a fishery for  
14 fertilizer. Squid is a very valuable product,  
15 whole squid. Nor would the National Marine  
16 Fisheries Service allow it. It works only by  
17 getting squid waste for free or a small token  
18 amount. The saving is on the other end with no  
19 trucking or landfill cost to the processor.

20 The second concern of the whole squid,  
21 I specifically added whole squid because in every  
22 load of squid waste we receive, we get a very small

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1 percentage of whole squid. Squid cleaning is done  
2 by hand, and a full whole squid accidentally slip  
3 by during the process. That percentage is less  
4 than one-quarter of 1 percent.

5 Also, on rare occasions, squid is unfit  
6 for human consumption, the reasons ranging from  
7 being out to sea too long, equipment or vessel  
8 breakdown, and weather. This unusable squid would  
9 end up in landfills instead of being  
10 beneficially-used on crops. Heavy metals, on our  
11 squid fertilizer analysis we have done, compared  
12 to most fish fertilizers show less heavy metal  
13 concentrates. By adding squid and squid  
14 byproducts to the National List, it would greatly  
15 reduce the waste streams going to landfill, which  
16 can lead to runoff issues.

17 Using 100 percent of this squid for both  
18 human consumption and fertilizer is in the spirit  
19 of organics and living in a world of reduced waste  
20 and full resource utilization. As finfish  
21 byproducts are increasingly used to make animal and  
22 aquaculture feed, squid fertilizer can help offset

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1 this.

2 Squid is a natural organism that has  
3 good source of macro and micro nutrients for plant  
4 growth. It has been used for centuries as a  
5 fertilizer. Our squid fertilizer has a  
6 USDA-certified bio-based product certification.  
7 We feel that squid fertilizer would be beneficial  
8 to the organic farming community and respectfully  
9 ask that your approval to add squid and squid  
10 byproducts stabilized with acids to a National  
11 List.

12 Thank you.

13 CHAIR FAVRE: Emily? Followed by Zea.

14 MEMBER OAKLEY: You talked about whole  
15 squid or unusable squid being in the byproducts.  
16 Couldn't those just be considered by products since  
17 they're coming as a result of the manufacturing and  
18 grading process?

19 MR. BARBERA: When I say they are in  
20 there, by the time we get the product, the squid  
21 byproduct or waste, you know, there is a few whole  
22 squid. But, technically, it is a waste now or

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1 byproduct that has gone through the processing, but  
2 we are just worried, technically, if somebody came  
3 in and said, "Oh, you've got a whole squid in there,  
4 that you're out of regulation. It can only be a  
5 byproduct."

6 And we run into times, and typically,  
7 if a trip comes in with 20,000 pounds of squid, in  
8 the rare occasion that there is squid that is unfit  
9 for human consumption, it is usually only 2 or 3  
10 thousand maybe the first part of the trip that had  
11 gone bad, because sometimes they have been out a  
12 little too long. But, like I say, squid is very  
13 valuable. Neither the fisherman nor the processor  
14 wants to see squid going to fertilizer.

15 MEMBER OAKLEY: Can I clarify that,  
16 then? So, what I am hearing is that those whole  
17 squid are byproducts. Would you say that is  
18 correct?

19 MR. BARBERA: Yes, they are whole  
20 squid. When we consider byproducts, what we are  
21 getting, we are getting the guts, the wings, the  
22 skin. We are getting the waste.

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1                   When you make a calamari out of whole  
2 squid that you get in the restaurants, there's  
3 about 50-percent waste left over that ends up in  
4 landfills or trucked.

5                   CHAIR FAVRE:   Zea?

6                   MEMBER SONNABEND:   Thank you.

7                   We appreciate that this squid that you  
8 catch in the Eastern Atlantic, or I guess it's the  
9 Western Atlantic, but it is the East Coast of  
10 America, is only for food and that, therefore, both  
11 the whole squid that you bring in and the byproducts  
12 are considered byproducts because your purpose for  
13 catching the squid is for processing, not for  
14 fertilizer.

15                   But we have to evaluate the squid that  
16 might come from other regions also.   And I am  
17 wondering how familiar you are with any other areas  
18 where squid are fished or -- I can't say "squid  
19 fishing" -- squid crustaceaning.   No.   What are  
20 squid?

21                   (Laughter.)

22                   Anyway, catching squid from other

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1 regions, if there are any areas of the world where  
2 they are caught specifically for fertilizer or  
3 whether it is always for food processing.

4 MR. BARBERA: I have not heard of  
5 anyplace in the world that uses squid for  
6 fertilizer, you know, specifically when they catch  
7 it. The only other that I have some familiarity  
8 with is the West Coast. And again, squid has  
9 become a very valuable commodity. I know, also,  
10 that they take some of their waste, but I have not  
11 heard that they take whole squid. Whole squid is  
12 over \$1 a pound for the product. A fisherman, if  
13 you ever said, "I'm taking your trip and going to  
14 turn it into fertilizer and you're going to get 2  
15 cents," they would shoot me.

16 CHAIR FAVRE: So, I have a question for  
17 you. Some of the public comments indicated that  
18 there is a high percentage of unreported harvesting  
19 of squid. And so, from a natural resource  
20 management, there are some concerns associated  
21 with that. Can you speak to that? Do you have any  
22 knowledge of that at all?

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1                   MR. BARBERA: I do. I have been in the  
2 fishing industry for 40 years now of my life. On  
3 the East Coast and on the West Coast, the United  
4 States, there is very, very little. To say there  
5 is zero overfishing going on anywhere, nobody can  
6 say that. There's some cheating going on.

7                   But the squid fishery on the East Coast,  
8 and the same thing on the West Coast, is highly  
9 regulated. The enforcement is there. There's  
10 onboard monitors. So, there is very little.

11                  And as I have stated, and I talked with  
12 the folks from the National Marine Fisheries  
13 Service before I came here, there hasn't been  
14 squid -- as a matter of fact, there's some years  
15 the squid quota that is the allowable catch for the  
16 fisherman is not even caught.

17                  Now overseas, I can't really speak for  
18 that. I think most of the comments talked about  
19 overseas fishing where there was overfishing and  
20 not heavy oversight. That I can't speak on. That  
21 is something that, you know, I know the United  
22 States puts pressure on other countries to stop

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1 overfishing. How successful they are I'm not  
2 sure.

3 CHAIR FAVRE: Harriet?

4 MEMBER BEHAR: In the technical  
5 review, it spoke a lot about the byproduct also  
6 being dumped out in the ocean, besides just  
7 landfilling. Can you speak to the environmental  
8 impacts of that type of disposal?

9 MR. BARBERA: This is going back about  
10 15-18 years ago. When squid first started to be  
11 used for the calamari in the United States,  
12 especially on the East Coast, prior to that, all  
13 our squid was sold whole, most of it overseas.  
14 This is going back like 25 years, where the foreign  
15 countries used a lot of squid for food.

16 But, as the United States started to  
17 come around and using squid, all of a sudden, of  
18 course, processors started to clean squid. What  
19 happened is many places we overwhelmed the waste  
20 treatment plants. The high biological content  
21 caused havoc.

22 We received from EPA permission to go

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1 take squid waste out to sea. We had to travel about  
2 12 miles out, and there was certain protocol on how  
3 fast you had to go to dump it and how much area you  
4 had to cover. But they have stopped that.

5 Some of the reason, too, was, no matter  
6 what, if you are doing high volume of squid, the  
7 concentrate of squid and, you know, the nutrients  
8 that are released and what that does to the water  
9 can cause problems. To do it in a concentrated  
10 area, large volumes of squid waste in a  
11 concentrated area would cause environmental  
12 problems.

13 CHAIR FAVRE: Scott?

14 MEMBER RICE: On that note of the  
15 nutrient loading, either in the sea or as an input,  
16 what is the profile as far as nitrogen content?

17 MR. BARBERA: About 2 percent.

18 MEMBER RICE: So, would you say that is  
19 fairly low?

20 MR. BARBERA: As an organic -- if it was  
21 a chemical synthetic, it is fairly low -- but for  
22 an organic product, you know, that is in the range

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1 without adding. You know, that is not without  
2 adding anything to boost it.

3 MEMBER RICE: Thanks.

4 CHAIR FAVRE: Harriet?

5 MEMBER BEHAR: So, it seems part of the  
6 reason that we are considering this product is  
7 because we have an issue with disposal. And so,  
8 we want to take this byproduct. And it can be a  
9 beneficial fertilizer, but, really, part of it is  
10 that we are reacting to a disposal problem, that  
11 we don't want to put it in the oceans and we don't  
12 want to put it in the landfills.

13 MR. BARBERA: Yes, that is one thing.  
14 When we first started this project -- like I say,  
15 we are in the fishing industry. We produce squid;  
16 we process squid. We see all this; we have seen  
17 this waste stream.

18 The University of Rhode Island worked  
19 with us. Dr. Chong Lee, who has been working on  
20 squid fertilizers and squid waste for many, many  
21 years, talked to us about this project, as a matter  
22 of fact, years ago.

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1           We were under the assumption that it was  
2 squid. We consider, when we go fishing, we are  
3 squid fishing; we are cod fishing. So that we were  
4 just going to be able to use it because fish  
5 byproducts in fish fertilizers is approved for an  
6 organic input. Little did we know that, once we  
7 get started, that squid and fish are not the same  
8 thing.

9           But, yes, I would say both thing. We  
10 have a byproduct that can be used in the organic  
11 community, and we also have a wastewater issue, a  
12 waste stream issue.

13           CHAIR FAVRE: Francis? And I think we  
14 will need to make this the last question.

15           MEMBER THICKE: So, why is it going to  
16 the landfill? Why don't conventional farmers use  
17 it?

18           MR. BARBERA: Well, I think synthetic  
19 fertilizers, I think if you are not in organic,  
20 unless you have, just a sad thing, that you want  
21 to be environmentally-sound, I think fertilizers  
22 are much cheaper, synthetic fertilizers; that to

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1 compete in the synthetic market with a 2-2-2  
2 product, that we have a liquid, would some do it?  
3 I think there are some small farmers who are  
4 actually in Rhode Island who do use squid  
5 fertilizer, but the big boys are not using it.

6 CHAIR FAVRE: Thank you very much.

7 MR. BARBERA: Thank you.

8 CHAIR FAVRE: Next up is Garth Kahl,  
9 with Scott Rangus on deck.

10 MR. KAHL: Hi. My name is Garth Kahl.  
11 I'm a mixed crop and livestock producer, certified  
12 organic for 23 years in western Oregon. I have  
13 submitted my written comments on a range of issues,  
14 but today I specifically want to talk about the  
15 parasiticide issue, particularly with respect to  
16 small ruminants.

17 And if you are talking about small  
18 ruminant production in North America, this  
19 organism is your big, bad guy. This is Haemonchus  
20 contortus. It is the biggest barrier to small  
21 ruminant production, conventional and organic, in  
22 North America, also known as the barber pole worm

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1 because of the little stripes that you see on it  
2 there.

3 So, here, really quickly, is the life  
4 cycle of Haemonchus. It goes into the sheep or  
5 goat. It goes into the abomosum, the fourth  
6 stomach of the organism. The parasites grow to  
7 adulthood. They are passed out onto the grass, and  
8 then, they can develop there and they can remain  
9 viable for up to six months, which means combating  
10 it with solely rotation of pastures is really,  
11 really impossible for most growers because they  
12 don't have the space to have that long of a  
13 rotation.

14 Here is a picture of what the infectious  
15 larvae look like. This is a third-stage instar of  
16 Haemonchus just waiting to be eaten by a  
17 susceptible young lamb or a ewe whose resistance  
18 is down because she has just lambed and she is  
19 lactating, and her resistance is low.

20 This is what Haemonchus does in the  
21 abomosum. It goes in and it actually pierces the  
22 wall of abomosum, and they are blood-sucking

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1 parasites. And they generally reduce  
2 thriftiness; they reduce weight gain; they can  
3 cause abortions. In severe cases you get this.  
4 This is bottle jaw.

5 So, if you, as an organic inspector or  
6 you, members of the NOSB, are looking for an  
7 indicator of what is emergency use, if you see an  
8 animal with this, this animal is critical. It  
9 could die in days or weeks. This is caused by  
10 buildup of fluids underneath the jaw, and you also  
11 get anemia. And I will talk about that in a second.

12 So, treatment strategies. On our farm  
13 we use multi-species grazing to try to break the  
14 life cycle, so the cattle eat the organism and it  
15 is a biological dead-end.

16 This is also key, and this is being  
17 used, conventional and organic. This is the  
18 FAMANCHA test. It is a test for anemia.  
19 Basically, you look at the upper lefthand corner  
20 of the slide there. If the animal's eye is white  
21 there, that is an emergency treatment protocol,  
22 basically. If your animal is that anemic, you need

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1 to do something.

2 So, we used approved herbal and  
3 homeopathic wormers, but we also use judicious use  
4 of parasiticides as a last resort. And we are  
5 seeing resistance, both conventional and organic,  
6 to fenbendazole. So, this is why I would ask you  
7 to please keep ivermectin and the whole slew of  
8 options on the list.

9 (Timer rings.)

10 And I would welcome any questions.

11 CHAIR FAVRE: Questions?

12 Jean?

13 MEMBER RICHARDSON: So, you know we're  
14 struggling with the ivermectin, Garth. Have you  
15 used ivermectin very much on your sheep? Have you  
16 seen any negative dung beetle impact on your farm  
17 or the ones in your region?

18 MR. KAHL: Well, yes, first of all, I  
19 do use ivermectin on the sheep and I will use it  
20 on non-lactating goats. Basically, the way you  
21 use ivermectin -- and this is now recommended to  
22 us both conventional, this is what Extension is

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1 recommending, and also, obviously in organic -- you  
2 don't treat the whole herd. You treat maybe 20  
3 percent of the herd.

4 You use the FAMANCHA test. And I  
5 didn't put a slide in there. We also use fecal eggs  
6 counts. So, you're only treating, the rule of  
7 thumb is you have 80 percent of the parasites in  
8 20 percent of the animals. So, you're treating  
9 those animals that show up with a severe FAMANCHA  
10 test. Nobody is recommending, conventional or  
11 organic, to treat the whole herd because that is  
12 how you build up resistance.

13 So, you use a FAMANCHA test. You check  
14 body conditioning score. And you treat those  
15 animals that are very susceptible, that have a low  
16 body conditioning score and a bad FAMANCHA test.  
17 So, you are only treating at the most 20 percent  
18 of your herd. You are also providing refugia for  
19 dung beetles in the other 80 percent of the herd.

20 The other thing is we don't use  
21 ivermectin or any parasiticides on our cattle in  
22 our area. We don't have lungworm in the western

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1 U.S., and the WODPA people could probably add to  
2 this. But we don't have as big a parasite load in  
3 large ruminants as other areas of the country.

4 Basically, what I am saying is dung  
5 beetle can live in 80 percent of the patties out  
6 there. There's 20 percent that might have  
7 ivermectin in them.

8 CHAIR FAVRE: Any other questions?

9 (No response.)

10 MR. KAHL: Thank you.

11 CHAIR FAVRE: Thank you very much.

12 Next up is Scott Rangus, followed by  
13 Nicholas Gardner on deck.

14 MR. RANGUS: Good morning. I'm Scott  
15 Rangus. I'm the President and CEO of Ingredient  
16 Solutions. We are the largest independent  
17 supplier of carrageenan in the world, and I have  
18 been in the carrageenan business since 1976, pretty  
19 much straight of school.

20 Over the past 40 years, we have seen the  
21 attacks on carrageenan come and go over the years.  
22 Upon repeated review, every major food regulatory

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1 ingredient agency in the world has reaffirmed that  
2 carrageenan is safe for use in food, and continues  
3 to reaffirm that even last year in infant formulas.

4 There's plenty of scientific speakers  
5 that are going to support this. So, I am not going  
6 to dwell on that, but I do want to make a few points,  
7 though.

8 The current critics of carrageenan say  
9 that, just because the world's food ingredient  
10 agencies say carrageenan is safe, the theory is,  
11 well, industry and government are in collusion.  
12 Does anybody really believe that in the entire  
13 world that this is all a big conspiracy between the  
14 food agencies and the carrageenan industry? That  
15 just doesn't make a lot of sense.

16 The next criticism is that the  
17 carrageenan industry, you know, any of the studies  
18 that are supporting carrageenan are funded by the  
19 industry. Well, the reason for that is the  
20 ingredient industry doesn't have the luxury of  
21 grants that are paid for by taxpayers to continue  
22 these programs to attack carrageenan and other food

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1 ingredients. It is not just carrageenan.

2 As long as the grant money is flowing,  
3 this has become a career for some researchers, and  
4 they will just generate more theories, do some  
5 research, publish a paper, and the social media  
6 keeps it going.

7 I wasn't here yesterday, but I heard  
8 that there was somebody citing 1300 anecdotal cases  
9 of carrageenan "giving me a tummy ache". Well, I  
10 would argue that, in a country of 320 million  
11 people, you could pick any food or food ingredient  
12 and find at least that many who claim that "this  
13 doesn't agree with me," whether it is true or not.  
14 That is a point.

15 Now, in support of carrageenan,  
16 carrageenan provides a livelihood, the seaweed  
17 farming part, for over 100,000 families in Asia,  
18 the Philippines, Indonesia, and other parts of the  
19 world. This is an industry that provides a  
20 livelihood that wouldn't exist otherwise.

21 The carrageenan seaweeds are farmed  
22 without the use of pesticides, without the use of

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1 fertilizers. And without the current critics, it  
2 would be considered the ideal sustainable food  
3 ingredient of the 21st century.

4 Keeping carrageenan on the organic list  
5 I think gives the organic producer at least the  
6 option.

7 (Timer rings.)

8 It is still their choice whether to use  
9 it or not, but it should remain at least an option.  
10 Let them decide if they want to keep it or not.

11 Thank you.

12 Questions?

13 CHAIR FAVRE: Jean? And then,  
14 Harriet.

15 MEMBER RICHARDSON: Are you someone I  
16 could ask about overharvesting, a question?

17 MR. RANGUS: Overharvesting? There  
18 is so much tidal waters available in the  
19 Philippines, Indonesia, some in Africa, that these  
20 are continuously planted and harvested.

21 MEMBER RICHARDSON: Okay. So, that is  
22 kind of my question.

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1 MR. RANGUS: Yes.

2 MEMBER RICHARDSON: Let me try to,  
3 then, phrase the question the way I want it. It  
4 is that I have observed Irish moss, as it is called  
5 in Canada, being overharvested, Prince Edward  
6 Island, Nova Scotia, a huge impact.

7 MR. RANGUS: Yes.

8 MEMBER RICHARDSON: So, could you help  
9 me to understand? Because, obviously, we have to  
10 make a decision on this that works internationally  
11 and not just for one part of the world. How much  
12 carrageenan today going into industry is from the  
13 red algae that have actually been farmed --

14 MR. RANGUS: Right.

15 MEMBER RICHARDSON: -- and therefore,  
16 more under control, as opposed to the wild  
17 harvesting, which has obviously had a negative  
18 impact over the years?

19 MR. RANGUS: Yes. The Irish moss was  
20 the original source of carrageenan, going back to  
21 the 1800s, when somebody found out they could boil  
22 it. Now why anybody would do this, I have no idea,

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1 but somebody figured out that they could boil Irish  
2 moss with milk and strain out the seaweed, and it  
3 would set into a custard. Now why anybody would  
4 even think to try that is anybody's guess, but that  
5 was how carrageenan was originally discovered.

6 And that is why most of the carrageenan  
7 processing plants all were built along the North  
8 Atlantic Coast from the U.S. through Europe. The  
9 natural harvest of Irish moss has been replaced by  
10 the farming, mostly in the Philippines and  
11 Indonesia, of seaweeds that are much more  
12 economically. So, these days there is relatively  
13 little harvesting of Irish moss from the North  
14 Atlantic Region, simply because it has been  
15 replaced by more economically sources. So, the  
16 cost of harvesting the Irish moss is quite high.

17 So, just from an economic standpoint,  
18 there is very little of that done. And the farming  
19 that is done in other parts of the world, it is about  
20 as environmentally-friendly and sustainable as  
21 you're going to find of any raw material that you  
22 would grow.

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1                   MEMBER    RICHARDSON:            So,    what  
2   percentage is farmed?

3                   MR. RANGUS:    Oh, boy, I would have to  
4   say it is like 98 percent plus.    There is very  
5   little of the Irish moss.    Now there is natural  
6   seaweed harvesting in Chile of a different type for  
7   a different type of carrageenan.    But, again, that  
8   is a natural harvest.    It is harvested something  
9   like kelp, where it is essentially raked, but only  
10  the top part of the plant is taken from under the  
11  water.    And it just grows back.    There is no damage  
12  to the seabed or coral in the case of the Chilean  
13  weed.

14                                In the case of the farmed stuff in the  
15  Philippines and Indonesia, there is virtually no  
16  effect on the environment there, no fertilizers,  
17  no pesticides.    It would be like the ideal  
18  ingredient.    It is totally sustainable, provides  
19  a livelihood, and it has replaced in those regions'  
20  destructive fishing practices as a means of making  
21  a living.

22                                So, people can grow seaweed instead of

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1 fishing out an area or using things like dynamite.  
2 They used to use dynamite, throw it in the water,  
3 explode it, and the fish would float to the surface.  
4 That was not a very environmentally-friendly  
5 practice, and that has been replaced by seaweed  
6 farming in these areas now.

7 My point is, you know, let the organic  
8 food producer make their own decisions. But the  
9 idea of the food regulatory agencies worldwide are  
10 in some great conspiracy with the carrageenan  
11 industry just doesn't make any sense.

12 CHAIR FAVRE: Harriet?

13 MEMBER BEHAR: Jean mostly asked the  
14 question, but I am going to do a follow-up. The  
15 carrageenan or the seaweed that they are planting,  
16 is that a native seaweed --

17 MR. RANGUS: Oh, yes.

18 MEMBER BEHAR: -- or are they using  
19 North Atlantic seaweed in --

20 MR. RANGUS: No, no.

21 MEMBER BEHAR: This is a seaweed that  
22 is native to that area?

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1                   MR. RANGUS: Yes. Well, you have to  
2 farm the seaweed in the areas that it grows  
3 naturally.

4                   MEMBER BEHAR: Uh-hum.

5                   MR. RANGUS: Decades ago, these were  
6 also gathered naturally. They just picked them  
7 off the ocean floor. But what has replaced that  
8 is, basically, you put lines in the water with  
9 cuttings. You take little seedlings, tie them  
10 off. This is why you get like multi-generational  
11 farming families. You see everything from  
12 grandparents to little kids involved, and the  
13 government grants each farming family a certain  
14 area of hectares of water to use for their little  
15 farms. And these are all private. They say  
16 there's over 100,000 families involved in growing  
17 this. And all those seaweeds are indigenous to the  
18 areas they are farmed in; they have to be because  
19 the North Atlantic seaweed is not going to grow in  
20 the Philippines. It is too hot, a number of  
21 reasons.

22                   But, yes, what happens is you put a

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1 little seedling on a line. Those things in four  
2 to six weeks grow to a 2- to 3-foot plant. They  
3 are harvested, and the process starts all over,  
4 taking the cuttings and putting them back on new  
5 lines. And this just goes on 12 months of the year.  
6 It is a year-round harvest.

7 MEMBER BEHAR: So, is it still the red  
8 algae?

9 MR. RANGUS: Oh, it is still, yes, the  
10 red seaweeds are the source for carrageenan and  
11 agar.

12 MEMBER BEHAR: Okay.

13 MR. RANGUS: And then, brown seaweeds,  
14 these are the marine kind of group families. The  
15 brown seaweeds are the alginate. That is the stuff  
16 you see on the beach in California, kelp.

17 CHAIR FAVRE: A-dea?

18 MEMBER ROMERO-BRIONES: Can you  
19 explain the economics of carrageenan for the  
20 farming families? We have heard a lot about  
21 carrageenan being the livelihood for many farmers  
22 around the world. How much are the farmers given

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1 for, let's say, a pound of carrageenan?

2 MR. RANGUS: Okay. We have a  
3 speaker -- actually, the reason I am not going to  
4 answer that is because I don't want to give you the  
5 wrong information. But the seaweed in general,  
6 depending on the type, especially in the  
7 Philippines and Indonesia, sells from anywhere on  
8 the market for \$500 to \$1200 per metric ton.

9 Now how much each family can farm and  
10 produce, I'm not sure of the exact number, but we  
11 do have a speaker from the Philippines coming up  
12 later, and she can probably can answer that  
13 question more. I don't want to give you the wrong  
14 information.

15 But it is quite a good livelihood. It  
16 is year-around. And they say it has replaced the  
17 destructive fishing practice that were common  
18 before seaweed farming became more popular as a  
19 living.

20 CHAIR FAVRE: Last question, Lisa.

21 MEMBER DE LIMA: Do you know what  
22 percentage of carrageenan goes into conventional

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1 products versus organic products?

2 MR. RANGUS: Oh, conventional  
3 products, again, it is the vast majority goes into  
4 conventional food products, dairy, meat, and we had  
5 a speaker from Best Products making the softgel  
6 capsules, everything from toothpaste, even the  
7 solid air-freshener gels that you buy in the store,  
8 the little cones, those are carrageenan gels. A  
9 lot of people don't even know that.

10 But the organic market is very small,  
11 probably less than 5 percent, to be honest with you.  
12 But it is an important -- it is a beachhead, if you  
13 will.

14 The only thing I would like to leave you  
15 with is, you know, if you are going to review things  
16 like carrageenan or any ingredient, do it on the  
17 basis of science and don't let social media drive  
18 this, which is kind of what we are seeing every day.

19 This is what is different now than 20  
20 or 30 years ago. You didn't have the bloggers and  
21 the social media. Let's face it, the average  
22 consumer is not a scientist. So, they read

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1 something, "Oh, this must be true." They jump on  
2 the bandwagon and it goes from there.

3 You can accuse somebody of anything.  
4 What happens is, then, the obligation falls on us  
5 to defend ourselves, whether the accusation is  
6 accurate or not. And that has been the problem.  
7 That is why we are addressing this so aggressively,  
8 because we can't just wait for it to go away, as  
9 it has over the past decades. These accusations  
10 come and go. They get disproven, and we move on.

11 That is we have to do it today. We  
12 can't just say, "Well, this will blow over." You  
13 can't just assume that anymore.

14 CHAIR FAVRE: Thank you very much.

15 MR. RANGUS: All right. Thank you.

16 CHAIR FAVRE: Next up is Nicholas  
17 Gardner, followed by Anicia Hurtado.

18 MR. GARDNER: Good morning. My name  
19 is Nicholas Gardner, and I am commenting on behalf  
20 of Marinalg International. Marinalg is a trade  
21 association representing companies that produce  
22 seaweed-derived hydrocolloids, including

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1 carrageenan.

2 Marinalg strongly supports the  
3 continued listing of carrageenan on the National  
4 List at 205.605(a). Carrageenan is a  
5 non-synthetic, high-molecular-weight  
6 polysaccharide extracted from red seaweed.

7 Carrageenan has been safely used in  
8 foods for hundreds of years because of its unique  
9 functionality. Carrageenan is commonly used to  
10 thicken, stabilize, bind water, promote gel  
11 formation, and is a substitute for fat.  
12 Carrageenan improves palatability, appearance,  
13 consistency, and stability of nutrients in a long  
14 list of organic and conventional foods, including  
15 dairy products, dessert gels, meat and fish  
16 products, beverages, condiments, infant formula,  
17 and even pet food. Although alternatives have  
18 worked for some products, we disagree with claims  
19 that alternatives exist for all organic  
20 applications.

21 Carrageenan is, first and foremost, a  
22 safe ingredient. Extensive scientific research

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1 demonstrates that carrageenan does not cause  
2 adverse health impacts when consumed in food.

3 Perhaps the most significant indicator  
4 of the global consensus on carrageenan safety is  
5 the recent evaluation of carrageenan for use in  
6 infant formula and formulas for special medical  
7 purposes by JECFA.

8 JECFA is one of the most respected  
9 risk-assessment bodies in the world and it is used  
10 by Codex and nations around the world to manage  
11 risks. JECFA's conclusions are unambiguous.  
12 Carrageenan is safe for use in products for  
13 infants. It is unlikely to be absorbed in the  
14 body. And JECFA's review of the toxicological  
15 database on carrageenan did not indicate other  
16 toxicological concerns.

17 Some have tried to raise uncertainty  
18 about carrageenan by claiming that carrageenan  
19 contains poligeenan or equating carrageenan to  
20 poligeenan. I want to be very clear. Carrageenan  
21 is not poligeenan. Poligeenan is an entirely  
22 different substance. Food-grade carrageenan does

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1 not include or degrade into carrageenan in the  
2 body, and we need to judge carrageenan's safety  
3 based upon research on carrageenan, not  
4 poligeenan.

5 Let me just touch on a couple of  
6 remaining points in the time I have. Carrageenan  
7 is essential to organic production and cannot be  
8 replaced in all products. While some companies  
9 have found substitutes for certain products, there  
10 are examples where reformulation is not possible  
11 or would result in inferior products.

12 Carrageenan is consistent with organic  
13 principles, including the seaweed farming that you  
14 just heard about. And the concept of carrageenan  
15 sensitivity has not been demonstrated, but if it  
16 does exist, you can avoid carrageenan by reviewing  
17 food labels. All processed packaged foods that  
18 use carrageenan will have carrageenan listed on the  
19 label.

20 Thank you very much. I would be happy  
21 to take any questions.

22 (Timer rings.)

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1 CHAIR FAVRE: Oh, good job.

2 (Laughter.)

3 Tom, you had a question?

4 VICE CHAIR CHAPMAN: I've got a couple,  
5 actually.

6 I mean, you made two statements in there  
7 about organic products requiring carrageenan.

8 MR. GARDNER: Yes.

9 VICE CHAIR CHAPMAN: Do you have  
10 examples of categories?

11 MR. GARDNER: Yes, and I was hoping,  
12 actually, Tom, you would ask me this question.

13 I want to talk a little bit about  
14 essentiality in framing how I respond to this  
15 question. I concede that there are substitutes  
16 for carrageenan that provide technical functions  
17 that are very similar to carrageenan. But, in my  
18 opinion, essentiality comes down to the organic  
19 formulator who has spent months or years developing  
20 a formulation where they evaluated alternatives,  
21 and they have selected carrageenan for a very  
22 specific reason or reasons.

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1                   When they look at their  
2 formulation -- and we know some have tried to remove  
3 carrageenan -- they often find that using  
4 alternatives results in very negative properties  
5 that aren't present in the formulation when they  
6 use carrageenan, things like odor, color, not great  
7 mouthfeel or consistency; potentially in terms of  
8 stabilizing nutrients, not the same performance,  
9 which can be very important if you are making a  
10 nutritional beverage, for example.

11                   Now could that producer create a  
12 product that has similar properties without  
13 carrageenan? Yes, that may be the case, but they  
14 are really forming products to satisfy their  
15 consumer. And if they are faced with the choice  
16 of formulating a product that their consumers don't  
17 want that has an organic label on it or using  
18 carrageenan and, say, forming a conventional food  
19 that has a natural label on it that will sell, that  
20 formulator will likely go for the conventional food  
21 product that sells that their consumers want. To  
22 them, it is really essential that they use

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1 carrageenan, even if technical functionality may  
2 be achievable through other means.

3 Now let me just note one other point as  
4 well. This is very important for a lot of the  
5 organic formulators that we have talked to.  
6 Often, replacing carrageenan requires the use of  
7 multiple other stabilizers and thickeners. When  
8 you are thinking about formulating a product that  
9 is intended for an organic consumer that is  
10 scrutinizing food labels, is looking at all of the  
11 ingredients that go into their products, they would  
12 rather have a product that has just carrageenan in  
13 it than two or three other hydrocolloids or  
14 biopolymers that function in a system to achieve  
15 comparable functionality.

16 VICE CHAIR CHAPMAN: And follow-up to  
17 that, I mean, I hear what you are saying about the  
18 multiple substances. Unfortunately, under the  
19 OFPA criteria, one of the areas with alternatives  
20 that we are supposed to evaluate is other available  
21 materials, plural. So, the replacement of one  
22 material with multiple is still an acceptable area

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1 of the evaluation under the OFPA criteria.

2 MR. GARDNER: Well, that is why you  
3 have the tough job.

4 VICE CHAIR CHAPMAN: Indeed.

5 (Laughter.)

6 All right. Which one do I want to  
7 follow up on first? Let's go with, you made a  
8 comment about labeled ingredients.

9 MR. GARDNER: Yes. Sure.

10 VICE CHAIR CHAPMAN: And I had asked  
11 the question on the webinar, and I don't feel like  
12 I got a clear answer. So, I am going to ask it again  
13 here.

14 In cases of products like alcohol, and  
15 particularly beer --

16 MR. GARDNER: Yes.

17 VICE CHAIR CHAPMAN: -- where  
18 carrageenan is used as a --

19 MR. GARDNER: Clarifying agent.

20 VICE CHAIR CHAPMAN: -- clarifying  
21 agent --

22 MR. GARDNER: Yes.

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1                   VICE CHAIR CHAPMAN:  -- it will not  
2 appear on the label.

3                   MR. GARDNER:  In beer, when used as a  
4 clarifying agent, it would not appear on the label.  
5 But the way a clarifying agent works is the  
6 particles in the beer that carrageenan is intended  
7 to bind with to clarify the beer are actually  
8 removed from the beer prior to marketing.

9                   So, you wouldn't have carrageenan in  
10 that beer product, which is why labeling it in that  
11 application is not a concern.  Also, you know, that  
12 is regulated somewhat differently than processed  
13 food products, which is I think what my comments  
14 limited them to.

15                   VICE CHAIR CHAPMAN:  Okay.  I did  
16 remember my other follow-up.  So, I am going to ask  
17 that real quick and, then, I will shut up.

18                   So, you made comments about formulators  
19 and reformulation resulting in inferior products.  
20 There were several companies between the last  
21 sunset review and now --

22                   MR. GARDNER:  Yes.

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1                   VICE CHAIR CHAPMAN:    -- that have  
2 removed carrageenan from their products.  Are you  
3 aware of customer complaint data or sales data, or  
4 anything like that, that supports that claim in  
5 terms of customer preference of these products?

6                   MR. GARDNER:  Well, the way I think I  
7 can answer that question best is by talking about  
8 some of the conversations I have had with my members  
9 who often are consulted when producers are making  
10 product reformulation decisions.  I know of  
11 several instances and a variety of products that  
12 I'm not going to name here in this public forum,  
13 but several instances where formulators have come  
14 back to my members and have said, "Look, we are  
15 trying to reformulate.  We have tried multiple  
16 alternative hydrocolloids, biopolymers, and  
17 really, our formulation at this point is broken.  
18 We cannot produce the product that we want with the  
19 exact characteristics that we want without  
20 carrageenan."

21                   And frankly, if you asked a producer  
22 about customer acceptance, they are going to know

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1 that a lot better than I will, representing a little  
2 further upstream.

3 CHAIR FAVRE: Okay. The last  
4 question, Zea.

5 MEMBER SONNABEND: Thank you.

6 Actually, mine is a follow-up to Tom's  
7 middle question about the beer, which I appreciate  
8 that in beer it is a processing aid, essentially.  
9 But we did get some public comment about some other  
10 ingredients, other products it didn't appear on the  
11 label, including I believe condensed milk or  
12 evaporated milk was one of them.

13 It is of some concern to us if people  
14 with sensitivity can't see it on the label. So,  
15 can you verify that?

16 MR. GARDNER: Of course. Now, I mean,  
17 I think, Zea, I would start by acknowledging that  
18 if you cannot identify something on a label that  
19 you think you are sensitive to, that is a big  
20 problem.

21 Evaporated milk or condensed milk, in  
22 either case, is going to be an FDA-regulated

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1 product. I can't think of any instance where it  
2 would be a USDA-regulated product. But, either  
3 way, the labeling laws are quite clear. If used  
4 as a primary ingredient in those products, it has  
5 to be listed. And I really can't think of any  
6 processing use that I have ever encountered for  
7 carrageenan other than clarifying agent. It is  
8 possible they exist, but I have never encountered  
9 one.

10 MEMBER SONNABEND: Thanks.

11 CHAIR FAVRE: Thank you very much.

12 MR. GARDNER: Thank you.

13 CHAIR FAVRE: Next up is Anicia  
14 Hurtado, followed by Urvashi Rangan on deck.

15 MS. HURTADO: Good morning. I am  
16 Anicia Hurtado, a seaweed scientist with more than  
17 30 years of experience advising seaweed farmers on  
18 crop science and crop management. I am here at the  
19 request of Marinalg to speak on the importance of  
20 carrageenan being able to retain its organic status  
21 in the upcoming sunset review.

22 Two carrageenans produced are dominant

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1 in farming. These are known as cottonii and  
2 spinosum, the former producing kappa carrageenan  
3 and the latter, iota. Each has its own markets in  
4 processed meat and dairy products.

5 Seaweed farming and carrageenan  
6 production are major revenue-producing activities  
7 in Southeast Asia. They are also major employment  
8 producers, especially for seaweed farm families.

9 In the Philippines alone there are over  
10 100,000 families engaged in seaweed farming.  
11 Prior to the introduction of seaweed cultivation  
12 in the 1960s, these coastal residents relied on  
13 declining fisheries for marginal systems.  
14 Seaweed farming has stepped in and has produced a  
15 fair and equitable income for fisher-folk.

16 Carrageenan production remains the  
17 only market for these farmed seaweeds. All  
18 carrageenan producers worldwide rely on cottonii  
19 and spinosum farms in Southeast Asia, particularly  
20 Indonesia and the Philippines. Any reduction in  
21 demand for carrageenan ripples quickly down the  
22 supply chain, affecting farmers' income.

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1           Thus, even though organic carrageenan  
2           is still a small market, it is an important one.  
3           Removing it from the National List would cause  
4           undue damage to seaweed farm families.

5           Other advantages of seaweed  
6           cultivation address environmental and ecological  
7           issues. Seaweed farming perpetuates a renewable  
8           resource. It grows vegetatively. A small piece  
9           of seaweed can be suspended in coastal seawater and  
10          it will grow undiminished in time.

11          In practice, a 100-gram seedling is  
12          allowed to grow for 45 to 60 days, and it is  
13          harvestable when it has reached a weight of more  
14          than 700 grams each. A new seedling is taken from  
15          the harvest, and the whole process is repeated.  
16          Methods of suspending the seaweed and harvesting  
17          are described in detail in my written submission.

18          Seaweed farming is beneficial to the  
19          environment. It sequesters CO2 from the  
20          atmosphere. Seaweed farms provide habitats for a  
21          diversity of marine organisms, thus, increasing  
22          the biodiversity of the marine ecosystem.

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1           No pesticides or fertilizers are used,  
2 nor are they needed in seaweed farming. The sea  
3 provides all the nutrients needed for efficient  
4 seaweed cultivation. The bright tropical sun  
5 provides energy for growth through photosynthesis.

6           In conclusion, my country, the  
7 Philippines, needs to have carrageenan remain on  
8 the National List.

9           (Timer rings.)

10           I hope I have given you some convincing  
11 reasons to retain carrageenan in the National List.

12           Thank you.

13           CHAIR FAVRE: Thank you.

14           Any questions?

15           Harriet?

16           MEMBER BEHAR: Everyone states that  
17 there are no pesticides or fertilizers used. In  
18 any case is there ever any used? No?

19           MS. HURTADO: There's none.

20           MEMBER BEHAR: So, there are no other  
21 sea plants being grown in that area? So, they just  
22 introduce them? Or how are they growing that

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1 monoculture?

2 MS. HURTADO: Actually, you can  
3 cultivate the seaweeds which are endemic in that  
4 place or you can just transplant it in another  
5 place. But we never use fertilizer nor pesticides  
6 in that area. We have to depend on the nutrients  
7 present and the water column of the sea. And that  
8 is more than enough to grow the seaweed.

9 CHAIR FAVRE: Harold?

10 MEMBER AUSTIN: Thank you for coming  
11 and giving the presentation to us and providing us  
12 with this additional information.

13 A two-part question. The first part  
14 would be, in the areas where the carrageenan is  
15 being farmed, the red seaweed is being farmed, is  
16 there any noticeable changes to the biodiversity,  
17 to the plant life in those areas where these farms  
18 currently exist?

19 MS. HURTADO: Yes, because when you  
20 plant the seaweed hanging in the water column,  
21 after 15 days -- that is my personal  
22 observation -- there are a lot of juveniles,

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1 fishes, crustaceans, even what you call finfish  
2 that are roaming around in that area. So, it is  
3 a very good mix or a habitat for the juveniles. In  
4 fact, we call it a nursery ground.

5 MEMBER AUSTIN: Okay. So, it is  
6 actually helping to improve it.

7 The other question that I have is we  
8 have heard that there's 100,000 family farms that  
9 are involved in this and roughly 5 percent of the  
10 harvest goes into organic production. So, if we  
11 did the math, we would be looking  
12 at -- what? -- 5,000 family farms that would be put  
13 out of business. What would those individuals do  
14 if they weren't able to harvest carrageenan?

15 MS. HURTADO: Oh, actually, if you go  
16 for cultivation, there is a phase. So, you have  
17 to manage your farm in such a way that every month  
18 you can harvest it. So, you have the planting and,  
19 then, cleaning or sorting in the lines and, then,  
20 harvesting, drying, packing. And then, they are  
21 ready to go to the market.

22 There is actually a program in seaweed

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1 farming. You cannot be idle. Especially if you  
2 have a big farm of two hectares, a family of five  
3 to seven can practically farm two hectares, and  
4 that will give you a lot of income annually.

5 CHAIR FAVRE: Harold?

6 MEMBER AUSTIN: Okay. Not quite  
7 getting to my point, though, but I appreciate that  
8 additional information.

9 But, if we were to say, okay, we're no  
10 longer going to allow carrageenan in organic  
11 production, we would then take away the jobs, the  
12 ability for those --

13 MS. HURTADO: A lot of jobs.

14 MEMBER AUSTIN: If they could not farm  
15 carrageenan, what would they physically do for a  
16 living?

17 MS. HURTADO: Oh, especially in the  
18 southern Philippines where there are hundreds of  
19 islands and there are isolated islands, I think  
20 removing seaweed cultivation in those areas will  
21 dramatically change their lives.

22 CHAIR FAVRE: Final question, Jean.

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1                   MEMBER RICHARDSON: Thank you for your  
2 excellent presentation.

3                   When we look at the seaweed, the red  
4 seaweeds, and so on, growing there on the slide you  
5 showed us, are they growing as part of a marine  
6 ecosystem or in a monoculture?

7                   MS. HURTADO: Oh, these are all  
8 monoculture because we haven't tried what is very  
9 popular in Canada and in Western Europe. It is  
10 monoculture, yes.

11                  CHAIR FAVRE: Thank you very much.

12                  MS. HURTADO: You're welcome.

13                  CHAIR FAVRE: Next up is Urvashi  
14 Rangan, followed by James McKim.

15                  DR. RANGAN: Good morning. My name is  
16 Urvashi Rangan. I'm the Executive Director for  
17 the Food Safety and Sustainability Center at  
18 Consumer Reports. I'm a toxicologist and  
19 environmental health scientist.

20                  For those of you who are new to us, we  
21 are an 80-year-old organization. Our parent  
22 company used to be Consumers Union. That is now

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1 our policy arm. Our parent brand is Consumer  
2 Reports. We have about 8.5 million subscribers  
3 and more than 1 million activists.

4 We conduct label ratings. We draw  
5 comparisons among them. We run national survey  
6 polls, some of the largest next to the Census. And  
7 we have been documenting consumer attitudes and  
8 expectations on labels, including organic and  
9 natural, for the past several years.

10 The natural label, as many of you know,  
11 undermines the organic label. There is an open  
12 comment period right now, open until May 10th. We  
13 are proposing to either ban the natural term  
14 altogether or define it as organic plus no  
15 artificial ingredients. Any group in the room  
16 that wants to sign onto our letter can and reach  
17 out to Charlotte Vallaeys, my colleague.

18 Some of the areas that fall short of  
19 consumer expectations in organic are also the basis  
20 for why we rate organic as meaningful instead of  
21 highly meaningful compared to other labels and to  
22 the 100-percent organic label. That includes our

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1 continued concern with the sunset of materials.  
2 We are concerned, again, with the vote change, that  
3 NOP has made it easier to maintain the use of  
4 non-organic ingredients, and the reason being is  
5 because consumers actually care about artificial  
6 ingredients.

7 Our 2015 December poll shows that 79  
8 percent of people don't actually really want  
9 artificial ingredients in their foods in general.  
10 Eighty-six percent think that there shouldn't be  
11 artificial ingredients or colors in foods labeled  
12 as organic.

13 In February we featured 25 products  
14 that we think are misleading when it comes to  
15 natural labeling, which you can also infer that  
16 would be misleading in terms of organic, that  
17 featured ingredients like xanthan gum,  
18 carrageenan, cellulose, and caramel color.

19 Carrageenan, as independent scientists  
20 and the bandwagon that others refer to in this room,  
21 we are concerned about the human, animal, and cell  
22 studies with gastrointestinal issues related to

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1 carrageenan as well as the breakdown products,  
2 which can occur on the shelf or in the gut, that  
3 are classified as Class 2B carcinogens by the World  
4 Health Organization. Neither the World Health  
5 Organization or Consumer Reports is vested in  
6 carrageenan. We are concerned about it as  
7 independent scientists.

8 We think the loophole on antibiotic use  
9 in poultry also needs to be shut down and be  
10 consistent with livestock and poultry antibiotic  
11 use across the board.

12 And while we know you haven't proposed  
13 things for aquaculture, we thought we would bring  
14 our 2016 survey results to you. Ninety-three  
15 percent of people expect organic aquaculture  
16 standards to have 100-percent organic feed.  
17 Eighty-eight percent expect standards to prohibit  
18 antibiotics and other drugs, and 87 percent expect  
19 no colors or feed added to the fish. Seventy-three  
20 percent expect no open pens.

21 (Timer rings.)

22 Thank you.

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1 CHAIR FAVRE: Good job.

2 Any questions?

3 (No response.)

4 Thank you very much.

5 Oh, Harriet?

6 MEMBER BEHAR: You mentioned that  
7 carrageenan will break down on the shelf?

8 DR. RANGAN: It can.

9 MEMBER BEHAR: I thought that it broke  
10 down like in an acid environment. How --

11 DR. RANGAN: It is really not clear to  
12 us. The industry studies that were --

13 MEMBER BEHAR: Oh, yes. Do you have  
14 like citation that could help me find that?

15 DR. RANGAN: The industry studies that  
16 were presented several years ago showed breakdown  
17 products of carrageenan. We submitted detailed  
18 comments on that, Harriet.

19 MEMBER BEHAR: Okay.

20 DR. RANGAN: We can pull those out and  
21 give those to you.

22 We are concerned. There are many

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1 products that break down both on the shelf or in  
2 the gut. Nitrosamine formation is one of those  
3 examples. Nitrates and nitrosamine formation can  
4 occur both on the shelf and in the gut, and there  
5 is also a susceptibility issue involved in that as  
6 well.

7 I think what is really particularly  
8 concerning about carrageenan is that it is not just  
9 reports of people with tummy aches. It is  
10 human -- it is actually quite a large number of  
11 human people who have reported problems. We need  
12 to understand that, and that is an important  
13 attribute scientifically.

14 But not only that, there are a whole  
15 slew of animal studies as well as cellular studies.  
16 As a toxicologist, you must put that prism together  
17 and look through that when you are determining  
18 whether it is safe or not.

19 And remember, this Board should know it  
20 is safe, not sort of guess that it might not be.  
21 The responsibility here is higher. Grass is not  
22 an adequate system for you to rely on to determine

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1 safety. It just isn't. And FDA admits itself  
2 there's a number of problems. So, you have a  
3 bigger task to know it is safe.

4 But there are a number of studies out  
5 there that question its safety. Because of that,  
6 we don't think it is appropriate as an ingredient  
7 in organic.

8 MEMBER BEHAR: Okay. Thank you.

9 DR. RANGAN: Thank you.

10 CHAIR FAVRE: Thank you very much.

11 DR. RANGAN: Thanks.

12 CHAIR FAVRE: Next up is James McKim,  
13 followed by Linda Froelich on deck.

14 DR. McKIM: Good morning. My name is  
15 Jim McKim. I'm here to talk to you about the last  
16 four years of research that my laboratories have  
17 been conducting around the safety of carrageenan.

18 I am a Board-certified toxicologist,  
19 specializing in biochemical and molecular fields.  
20 And my expertise is in vitro toxicology and the  
21 extrapolation of cell-based data to human risk. I  
22 am also the Chief Science Officer for Iontox, a

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1 contract research laboratory.

2 We're doing this work because of a  
3 series of studies that had been published by a  
4 single group, the University of Illinois. They  
5 have reported that carrageenan does cause  
6 inflammation and it causes insulin resistance.

7 These studies were done using human and  
8 intestinal liver cell lines, but the data was not  
9 consistent with animal feeding studies.  
10 Therefore, it is very important as a scientist to  
11 verify another laboratory's work.

12 To do that, we looked at the three  
13 proposed mechanisms of carrageenan adverse  
14 effects. In the intestine and liver, they have  
15 proposed that inflammation is caused by  
16 carrageenan binding to a specific receptor known  
17 as TLR4 or by inducing reactive oxygen species, and  
18 in the liver, that those pathways crosstalk and  
19 inhibit insulin signaling.

20 This is a complex diagram that shows  
21 those signaling pathways. You can see that there  
22 are some major components. Our philosophy was to

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1 take them apart and look at each one.

2 First, you have carrageenan binding to  
3 TLR4. You see that in the upper left. You have  
4 ROS being produced, the reactive oxygen species.  
5 And then, those pathways inhibit insulin  
6 signaling.

7 One thing that has been forgotten is  
8 that carrageenan, to get to the liver, has to be  
9 absorbed across the intestine and, then, absorbed  
10 across the liver cells. So, we looked at each  
11 pathway. We found no absorption of carrageenan  
12 that was detectable in in vitro models, and there  
13 is nothing reported that we have found in the animal  
14 models.

15 Carrageenan does not bind to TLR4. It  
16 doesn't do it in vitro in any of our cell models.  
17 And therefore, we don't see any induction of  
18 inflammatory cytokines.

19 In addition, we showed no reactive  
20 oxygen species formed. If these pathways aren't  
21 active, then you can't inhibit insulin signaling  
22 because it is crosstalk that does it.

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1           In conclusion, carrageenan in our  
2 laboratory over the last four years is not  
3 absorbed, does not induce inflammation or inhibit  
4 insulin-signaling pathways. And as I said, after  
5 four years of research on multiple cell lines, none  
6 of the findings related to carrageenan, to  
7 inflammation or insulin signaling has been  
8 repeatable.

9           If carrageenan is as promiscuous as it  
10 is reported to be, then it should not be difficult  
11 to repeat the work, at least some of it, even in  
12 trend. We have not been able to repeat any of it.

13           Thank you. I would be happy to answer  
14 questions.

15           CHAIR FAVRE: Zea?

16           MEMBER SONNABEND: Thank you.

17           I'm going to ask two questions in one,  
18 because I might not get another chance. I noticed  
19 that in your written comments you submitted  
20 abstracts of the work that you have just talked  
21 about to repeat the experiments from the University  
22 of Chicago. And I realize that it was only

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1 abstracts because it is in preparation for  
2 publication in a journal. And so, the whole  
3 article is not available.

4 But I am wondering if you could address  
5 two things. One is, is the research methodology  
6 that you used exactly the same as what they showed  
7 in their articles? And the second is just sort of  
8 a bigger concern, which is if, as you say, the  
9 carrageenan binds with protein and, therefore,  
10 won't cross the barrier out of the intestinal  
11 tract, wouldn't that reduce the protein content of  
12 the foods that contain carrageenan because you  
13 can't absorb the protein, either, as well as the  
14 carrageenan?

15 DR. McKIM: Well, I will address the  
16 first question regarding the scientific  
17 methodology and being exact or not exact. We  
18 started out by asking simple questions. So, to  
19 answer your question, we tried to use the same cell  
20 lines whenever possible. We tried to follow the  
21 basic methodology of exposure and preparation. We  
22 extended the dose ranges. So, we used some

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1 concentrations higher; we used some concentrations  
2 lower than the dose that was reported by the Chicago  
3 group. In some instances, we used different cell  
4 lines because we wanted to see what other lines  
5 these would affect.

6 For the insulin resistance work, the  
7 question was the HepG2 cell. That is a human  
8 hepatoma cell line. We use the same cell line. We  
9 followed the same dose and protocol, which requires  
10 a time of dosing of carrageenan in the presence of  
11 protein followed by a shorter time with no protein  
12 present. In addition to that, we extended the  
13 studies by using no protein at all.

14 So, yes, we're trying as closely as we  
15 can to follow the protocol. In some cases we take  
16 a different approach. So, just like a  
17 mathematical equation, sometimes it is better to  
18 get the same answer from two different directions.  
19 That gives you more confidence that you are not just  
20 repeating the same thing incorrectly, but the wrong  
21 step has been taken.

22 For example, our first paper that was

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1 published on TLR4 binding, we used a human  
2 embryonic kidney cell line that had been designed  
3 to be highly-sensitive to TLR4 binding. We wanted  
4 to make sure that, if carrageenan was going to bind,  
5 we would see it in this. Because if it is binding  
6 to TLR4, it should bind to TLR4 in any system. Why  
7 just one cell line? So, we used the HEK for that.  
8 That is different from the Chicago group. But, as  
9 closely as we could, yes, we followed their  
10 protocol.

11 Another thing we did differently is we  
12 actually characterized the carrageenan. It is a  
13 very expensive process to do carbohydrate  
14 chemistry. If you don't know what you're testing,  
15 as a toxicologist, how can you determine the  
16 result, what the result is due to. Is it a  
17 causative result or is it a correlative result?

18 Okay. So, for protein binding, the  
19 protein-binding question, if carrageenan binds to  
20 protein in the diet and it is digested, as the  
21 protein moves down the gut, it should be digested  
22 just like always, and the carrageenan would be

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1 released and it is excreted in the feces.

2 CHAIR FAVRE: Harold?

3 MEMBER AUSTIN: We have seen a lot of  
4 written scientific information presented to us  
5 that really delves into -- we have seen studies that  
6 are in vitro; we have seen studies that are in vivo.  
7 Could you explain to us the value or the breakdown  
8 of the value in vitro versus the in vivo studies?

9 DR. McKIM: Sure.

10 MEMBER AUSTIN: And help us to  
11 understand what this is all about and the  
12 importance of it.

13 DR. McKIM: Sure. The easiest way to  
14 think about it is that in vitro models or cell  
15 systems outside the body are highly useful for  
16 understanding specific mechanisms by which a  
17 chemical might interact. Ideally, then, you  
18 should be able to test that hypothesis in an animal  
19 model to see if the anticipated pathways, in fact,  
20 manifest in the symptoms or in the adverse event  
21 that you would expect to see in the animal.

22 In some cases, we have had to go

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1 backward. So, there is a plethora of animal data  
2 where they have done really rigorous feeding  
3 studies and shown no effect on the gut. And yet,  
4 we are still forced to go back and look at the cell  
5 models to understand the mechanistic data that is  
6 purported for carrageenan.

7 So, the in vitro data is very useful for  
8 understanding species differences, you know, human  
9 cells versus rodent cells. It is also very useful  
10 for specific mechanisms, but you have to have the  
11 in vivo data to correlate that to.

12 Oh, and the other point I just want to  
13 bring up is exposure. You can't do risk assessment  
14 without exposure. So, in vitro you put a known  
15 concentration directly on a cell. If you put that  
16 on a liver cell, it is highly unlikely that that  
17 is the concentration the liver is actually going  
18 to see. So, unless you know what the  
19 bioavailability -- bioavailability is the amount  
20 that actually is absorbed and gets into the  
21 body -- you can't do the correct assessment.

22 CHAIR FAVRE: Thank you very much for

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1 your comments.

2 DR. McKIM: You're very welcome.

3 CHAIR FAVRE: Next up is Linda  
4 Froelich, and we have Marty Mesh on deck.

5 MS. FROELICH: Good morning. My name  
6 is Linda Froelich, and I am the Sustainability II  
7 Director for FMC. Thank you for this opportunity  
8 today to speak with you.

9 I am here today to talk with you about  
10 sustainability, specifically about our  
11 manufacturing facility where we make carrageenan,  
12 the people who work there, and about carrageenan.  
13 Sustainability is in our DNA and how we do our  
14 business.

15 Our manufacturing facility was  
16 established in 1937 and is located in Rockland,  
17 Maine, on the pristine coast of the Atlantic Ocean.  
18 We are the only carrageenan manufacturing facility  
19 in North America and the largest carrageenan  
20 facility in the world. We have 130 employees.  
21 Multiple generations of families have worked at our  
22 Rockland site over the years.

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1           We are a major contributor to the  
2           sustainability of the community through  
3           participation in first-responder drills, hosting  
4           safety fairs at the plant, and contributing to the  
5           needs of the local area.

6           We are environmental stewards for  
7           global and local communities. We support  
8           biodiversity and aquaculture through sound seaweed  
9           farming and harvesting practices. We adhere to  
10          the strictest environmental standards in our  
11          industry, protecting resources, customers, and  
12          consumers.

13          All of the seaweed we use is grown,  
14          harvested, and packaged naturally without the use  
15          of fertilizers, pesticides, preservatives, or  
16          other chemicals. There is no  
17          generically-modified seaweed.

18          We have a holistic approach to  
19          manufacturing. Ninety-nine percent of the  
20          byproducts from our carrageenan processing is zero  
21          waste. The two primary byproducts created are  
22          algae fiber and seaweed shakings.

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1           Algae fiber contains organic matter and  
2 is used by local farmers to improve soil health and  
3 reduce farm input costs. Farmers seek algae fiber  
4 because it is easy to spread, it is slow release,  
5 and provides micronutrients. It is a great  
6 benefit to all parties involved in this resource  
7 reuse program.

8           In 2015, algae fiber was used at more  
9 than 50 farms in Maine to improve over 1800 acres  
10 of farmland. Additionally, it has been shown to  
11 help naturally increase plant root development and  
12 promote crop growth.

13           After harvesting and drying, the  
14 seaweed contains salts and sand in various  
15 proportions. In the first stage of processing the  
16 seaweed, it is chopped and screened to remove the  
17 bulk of the salt and the sand. Some seaweed  
18 particles also pass through the screen. This dry  
19 mixture, called seaweed shakings, contains  
20 potassium and is verified by OMRI to be used in  
21 certified organic production as a crop fertilizer  
22 and soil amendment.

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1           In 2014, the Rockland plant converted  
2 all of our energy use from No. 6 fuel oil to  
3 compressed natural gas. This conversion has  
4 resulted in a 30-percent reduction in greenhouse  
5 gas emissions.

6           However, at the end of the day, we are  
7 not here to talk about numbers. We are here to talk  
8 about people, community, and how the production of  
9 carrageenan improves lives.

10           I invite you all to come to visit the  
11 Rockland plant and see for yourself. We would  
12 really love to have you there.

13           Again, thank you very much for your  
14 time. And I urge you to relist carrageenan for  
15 continued use in organic foods and beverages.

16           Thank you.

17           CHAIR FAVRE: Thank you very much.

18           Questions?

19           (No response.)

20           Thank you.

21           MS. FROELICH: You're welcome.

22           CHAIR FAVRE: Next up is Marty Mesh,

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1 followed by Jane Parker on deck.

2 MR. MESH: Tell me when. Don't start  
3 the clock yet. Some of the people who finished  
4 early deferred the rest of their time to me.

5 (Laughter.)

6 My name is Marty Mesh. I'm the  
7 Executive Director of Florida Organic Growers; our  
8 certification program, Quality Certification  
9 Services.

10 I started growing organically in 1973.  
11 Because there are so many new faces on the Board,  
12 I thought I would give a bit of a personal  
13 introduction. I started organically in 1973, on  
14 a larger scale in 1976, and the nonprofit we started  
15 in 1987.

16 So, people have asked me where the baby  
17 is, and here's a couple of pictures that are going  
18 to come.

19 (Laughter.)

20 And then, I will tie her into my  
21 presentation in a minute.

22 My farming partner and I steadfastly

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1       disagreed about the benefits of a National Organic  
2       Program. He was totally opposed to it. I was  
3       supportive of it. And I told him, "I'll make this  
4       different. USDA, it will work. You'll see."  
5       And the experiment still is ongoing, but I believe  
6       it has worked.

7               I was OCC Chair for many years during  
8       the 2001 period. The OCC is now called the ACC,  
9       the Accredited Certifiers Caucus. And that was  
10       certainly herding cats and dealing with a  
11       less-sophisticated National Organic Program.

12              I certainly want to thank Miles and the  
13       NOP staff. I think they are underappreciated and  
14       oftentimes on the receiving end of throwing rocks.  
15       And the Board, for all the work that you guys have  
16       done and will do, certainly.

17              The hydroponic moratorium seems like a  
18       good idea to me. It was really back when Michael  
19       Sly was the Chair of the Board in the nineties that  
20       the Board said, "Yes, hydroponic production  
21       organically, we see this as a possibility. We see  
22       it." You know, fishmeal, seaweed, kelp, yes, it

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1 could be done.

2 Now, of course, there has been a later  
3 recommendation, too. So, I think in the meantime,  
4 while this issue is revisited again, the moratorium  
5 is a good idea. To put a moratorium now to stop  
6 hydroponic, which is, in my estimation,  
7 water-grown with no media at all, would be a useful  
8 exercise.

9 Utility patents are a problem. The  
10 checkoff program that we are trying to start  
11 strictly prohibits the use of utility patents on  
12 seeds, breeds, or equipment. And so, if we can get  
13 that thing done, maybe that would be a way that we  
14 could springboard more organic plant-breeding  
15 research without patents.

16 I want to touch on citrus growers, but  
17 I will do that last, and Zea will ask me, I'm sure,  
18 if we run out of time.

19 The Policy Manual, maybe delaying the  
20 vote would be an appropriate decision. I urge you  
21 near the conclusion to consider the facts. I mean,  
22 you hear scientists on both sides of the issue. It

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1 is hard to know what's true, what's not true, but  
2 to consider things carefully and, of course,  
3 ethically, and know that whatever comes out the  
4 other end of the pipeline, there's folks like me  
5 that will support it. Because not everybody is  
6 going to be happy at whatever decision you make.

7 For Jesse, I look forward to working  
8 with you to grow organic agriculture in  
9 Mississippi, something we have been passionate  
10 about, and to having another --

11 (Timer rings.)

12 Can I just finish the sentence?

13 -- another ally in terms of if  
14 corporations come to petition non-organic okra  
15 saying that they can't get enough non-organic okra  
16 in the South. I fought that alone for many years.  
17 And now, I believe, indeed, I will have another ally  
18 on the Board, if that becomes an issue.

19 In conclusion, I see organic as the next  
20 generation.

21 And there's my baby, the 10-month-old  
22 now, feeding Alice Waters organic broccoli. And

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1 so, I think you have to weigh carefully saving the  
2 planet for the next few generations, for many  
3 generations to come. Our responsibility is to  
4 grow organic agriculture.

5 Thanks.

6 Oh, citrus greening, I am sure there was  
7 a question that was going to come.

8 (Laughter.)

9 CHAIR FAVRE: Zea?

10 MEMBER SONNABEND: Marty, what was I  
11 supposed to ask you about?

12 (Laughter.)

13 MR. MESH: Citrus greening continues  
14 to be a devastating --

15 (Laughter.)

16 I'll just skip the question and go ahead  
17 and give the answer.

18 It is continuing to devastate organic  
19 citrus and conventional citrus in Florida. I  
20 think that the Board will see a petition coming from  
21 citrus growers. I don't know how you beg or plead,  
22 but to view that petition in a much more expedited

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1 manner because the life of organic citrus and the  
2 citrus farmers will be hanging much more than  
3 somebody that sees the material for use in  
4 processing at a later date. So, I don't know if  
5 you can do that, but I think it would be a good idea.

6 MEMBER SONNABEND: Well, could you be  
7 sure to let us know the name of what is being  
8 petitioned, once you find that out?

9 MR. MESH: If it is filed. I would  
10 rather not at this point until it is filed.

11 MEMBER SONNABEND: Right. Okay.  
12 Thank you. We'll look for it.

13 MR. MESH: It just got approved for use  
14 on citrus, and I see that as a last-ditch effort  
15 to try to save citrus in this scenario.

16 MEMBER SONNABEND: Okay. Thanks.

17 MR. MESH: Anything else?

18 And welcome back, Harold.

19 Is that it?

20 CHAIR FAVRE: Harold?

21 MEMBER AUSTIN: Thanks, Marty.

22 Marty, you complimented all of us up

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1 here. You supported the USDA in your comments to  
2 them, the NOP.

3 MR. MESH: I've had my disagreements  
4 with you.

5 MEMBER AUSTIN: One of the things I  
6 would like to say is thank you for your passion in  
7 behalf of organics in such a positive way.

8 CHAIR FAVRE: Thank you very much.

9 Next up is Jane Parker, followed by  
10 Suzanne McMillan.

11 Just, guys, we're running quite a bit  
12 behind. We're going to do these two speakers.  
13 Then we are going to take a five-minute break. Do  
14 your best, but we have got to make up some time.

15 MS. PARKER: Good morning. My name is  
16 Jane Parker from Botanical Food Company in  
17 Australia. Before, I came from Scotland. So, you  
18 can probably tell by the accent.

19 Today we wish to support the addition  
20 of sodium lactate to the National List. However,  
21 we believe it should not be limited to microbial  
22 control in meat and poultry processing.

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1           We are a certified organic processor of  
2 chilled, made-with-organic herb and spice paste,  
3 Gourmet Garden. We have eight growers, and 50  
4 percent of our business is through sales to the U.S.

5           Our pace meets the needs of consumers  
6 who do not have access to fresh herbs and spices,  
7 and we put particular emphasis on quality and food  
8 safety. Sodium lactate has been approved as an  
9 ingredient for over six years. Unlike, for  
10 example, sodium citrate, it is made from two  
11 ingredients on the National List.

12           Herbs and spices are used for their  
13 flavor and medicinal qualities and are  
14 characterized by their essential oils. It is  
15 difficult to maintain their integrity either as a  
16 fresh or processed product, particularly their  
17 antioxidant qualities. Also, because of their  
18 nature and where and how they are grown, they are  
19 at high risk of pathogen contamination.

20           As the Gourmet Garden herb and spice  
21 paste are not heat- or acid-treated, we use various  
22 hurdles to maintain product safety and integrity.

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1 For example, growing the correct plant for the  
2 environment, harvesting within the correct season  
3 and at the correct time of day, chilling to the  
4 correct temperature, washing, sanitizing, et  
5 cetera.

6 But we use one more, sodium lactate.  
7 As a single product, it is used to control and  
8 maintain pH. The natural pH within the raw herbs  
9 and spices vary by day, by drawer, et cetera. And  
10 for safety and integrity, product pH must remain  
11 within a critical range. At high pH microbial  
12 growth can pose food safety and quality issues. At  
13 low pH, certain plant compounds such as chlorophyll  
14 become unstable, resulting in product  
15 degeneration.

16 As a natural microbial, the lactate  
17 acid portion is known for its effectiveness in the  
18 controlling the growth of bacteria such as  
19 Listeria, E. coli, and Salmonella.

20 We have made many attempts to replace  
21 sodium lactate with other ingredients, as it is  
22 still not on the National List, such as sodium

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1 citrate, but it is hard. We have found that there  
2 is no other single ingredient or even combination  
3 of ingredients that can take the place of sodium  
4 lactate without an increased food safety risk and  
5 the loss of flavor and nutritional integrity.

6 We believe that putting sodium lactate  
7 on the National List as a natural microbial and pH  
8 regulator will continue to give food processors a  
9 critical food safety tool. We also believe, as  
10 shown by our current use, that sodium lactate has  
11 a wider range of application than the meat and  
12 poultry industries, and sincerely request that  
13 this be considered.

14 Thank you.

15 CHAIR FAVRE: Thank you.

16 Jean?

17 MEMBER RICHARDSON: Just a quick  
18 question. Our proposal deals with sodium and  
19 potassium lactate. Is potassium lactate of any  
20 use in the same kind of things that you're --

21 MS. PARKER: We actually, apparently,  
22 don't use potassium lactate, but don't really see

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1 it as an issue. The reason that we don't use it  
2 is that we use hydrogen salt and the sodium lactate  
3 as part of the preservation. So, we use the salt;  
4 whereas, potassium hasn't got that salt benefit,  
5 I think.

6 CHAIR FAVRE: Thank you very much.

7 MS. PARKER: Thank you.

8 CHAIR FAVRE: Our final speaker, our  
9 commenter before the break will be Suzanne  
10 McMillan. And then, we will take a very short  
11 break.

12 MS. McMILLAN: Hi. Thank you. I am  
13 Suzanne McMillan, Content Director for the Farm  
14 Animal Welfare Program at the ASPCA, which is the  
15 American Society for the Prevention of Cruelty to  
16 Animals. We are a national organization with over  
17 2.5 million supporters around the country. So, on  
18 their behalf, I would like to thank you for the  
19 opportunity to provide comments today.

20 Specifically, we would like to support  
21 the Livestock Subcommittee's proposal to reduce  
22 the withholding period for the anesthetics

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1 lidocaine and procaine. Whether farm animals are  
2 raised organically or otherwise, pen control is  
3 central to their welfare. Farmers need to be able  
4 to provide animals with anesthetics and analgesics  
5 as needed, no matter the point in the animal's  
6 production cycle.

7 If an animal's marketability drops due  
8 to a treatment protocol, there is potential to  
9 inadvertently create a disincentive to treat. The  
10 Livestock Subcommittee's proposal notes that an  
11 extended withholding period for anesthetics can  
12 have this effect by causing animals to either  
13 receive delayed treatment or none at all.

14 The Subcommittee also states in its  
15 proposal that it has found no scientific reason to  
16 extent the withholding periods beyond the number  
17 of days proposed.

18 Given these considerations, the ASPCA  
19 supports the proposal to reduce the withholding  
20 periods for procaine and lidocaine to the number  
21 of days suggested.

22 We would also like to note a larger

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1 context around this conversation. It is generally  
2 uncommon for farm animals to receive pain control,  
3 be it anesthetics or analgesics, for physical  
4 alterations. But a broad array of alterations are  
5 commonly performed to compensate for certain  
6 conditions and stressors that can arise in  
7 commercial farming which lead to undesirable  
8 behaviors. It is not uncommon to remove portions  
9 of animals peaks, toes, tails, and other body parts  
10 to mitigate these behaviors. We encourage input,  
11 such as adequate space, enrichment, proper diet,  
12 and healthy genetics, among others, to reduce the  
13 need for some of these alterations.

14 This bigger holistic picture is one  
15 reason the ASPCA is so pleased to see the USDA's  
16 proposed rule on organic animal welfare. It  
17 addresses some of these inputs I just mentioned.  
18 We thank the NOSB for making many of the  
19 recommendations over the years that formed the  
20 basis of the proposed rule.

21 Thank you.

22 CHAIR FAVRE: Thank you very much.

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1 Questions?

2 (No response.)

3 Thank you.

4 All right. We are going to take a  
5 break. By my count, we are about 30 minutes behind  
6 schedule. So, I'm going to say a five-minute,  
7 recognizing that the line to the bathroom will  
8 probably take longer than that. But, everybody,  
9 make your efforts to get back here as quickly as  
10 possible.

11 (Whereupon, the foregoing matter went off the record at 10:27 a.m. and  
12 went back on the record at 10:42 a.m.)

13 CHAIR FAVRE: As we get started back this afternoon or this morning,  
14 late morning, I am going to ask one of our Board members, Scott Rice, to read us a little  
15 passage to keep us focused on the big picture.

16 Scott?

17 MEMBER RICE: Thanks, Jean. Or Tracy. Excuse me.

18 (Laughter.)

19 CHAIR FAVRE: That was a Freudian slip.

20 (Laughter.)

21 MEMBER RICE: I was going to reference --

22 MEMBER RICHARDSON: Wasn't it a compliment, though. Thank

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1 you.

2 CHAIR FAVRE: Of course.

3 MEMBER RICE: I was going to reference Jean's poem from yesterday  
4 and just note that it is the 20th anniversary of National Poetry Month. I don't know if you  
5 all knew that. And so, it was fitting that Jean started us off with a poem, and I had that in  
6 mind as well. And I also had in mind a Robert Frost poem. So, I am going to stick with  
7 that because it is one that speaks to the time of year when all of us are thinking about weeds  
8 getting ahead of us and things needing tending back home.

9 "Putting in the Seed".

10 "You come to fetch me from my work  
11 tonight when supper's on the table, and we'll see  
12 if I can leave off burying the white soft petals  
13 fallen from the apple tree. (Soft petals, yes, but  
14 not so barren quite, mingled with these, smooth  
15 bean and wrinkled pea.) And go along with you ere  
16 you lose sight of what you came for and become like  
17 me, slave to a springtime passion for the earth.  
18 How Love burns through the Putting in the Seed on  
19 through the watching for that early birth when,  
20 just as the soil tarnishes with weed, the sturdy  
21 seedling with arched body comes shouldering its way  
22 and shedding the earth crumbs."

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1                   Thanks.

2                   CHAIR FAVRE:       Thank you, Scott.  
3                   Hopefully, that will help get us focused and remind  
4                   us of what we are here about.

5                   Our first speaker/commenter is Annie  
6                   Rouse, and we have Lydia Henshaw on deck.

7                   MS. ROUSE:    Thank you.

8                   Good morning.   My name is Annie Rouse,  
9                   and I'm here today to advise that the USDA approve  
10                  organic certification for industrial hemp, to  
11                  improve research data availability, and support a  
12                  nascent domestic industry.

13                  In 2013, before the 2014 farm bill even  
14                  passed, the U.S. Department of State used federal  
15                  funding to grant me a U.S. Fulbright scholarship  
16                  to study the environmental life cycle of hemp in  
17                  Canada.

18                  After my Fulbright experience, I  
19                  started the Kentucky Hemp Research Foundation.  
20                  Part of our research is conducting economic  
21                  assessments on hemp, but the instructions on the  
22                  USDA's refusal to allow organic hemp

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1       certifications is hindering market research and is  
2       in direct violation of the 2016 omnibus bill, which  
3       states that none of the funds made available by this  
4       Act or any other Act may be used in contravention  
5       of Section 7606 of the Agricultural Act or to  
6       prohibit the transportation, processing, sale, or  
7       use of industrial hemp that is grown or cultivated  
8       in accordance.

9               Because of the USDA's stance, major  
10       U.S.-based organic hemp companies cannot buy  
11       organic hemp grown on organic U.S. soil. So, it  
12       is impossible to research the price premium or the  
13       economic impact. But the farming industry wants  
14       it and needs it.

15               The Foundation has a goal organic  
16       program which helps to educate farmers and  
17       processors on how to transition to organic with  
18       hemp. Given that hemp is already non-GMO, has a  
19       growing market, and serves as a great rotational  
20       crop, we have found that farmers are actually  
21       excited to transition to organics with hemp. And  
22       this is in Kentucky, where conventional

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1 agriculture is king. But, if they can't get  
2 organic certification, they can't receive a price  
3 premium on the organic industrial hemp, then they  
4 do not think it is worth it to transition.

5 Finally, the Letter of Determination  
6 issued on February 16th references USDA organic  
7 regulations' general requirements for  
8 accreditation. The last subsection in this states  
9 that "No certifying agent shall exclude from  
10 participation in or deny the benefits of the  
11 National Organic Program to any person due to  
12 discrimination because of national origin."

13 However, this decision is directly in  
14 violation of the requirements because it is causing  
15 certifying agents to discriminate against U.S.  
16 organic hemp growers and processors based on their  
17 U.S. national origin. Canadian organic hemp is  
18 considered USDA organic. So, why can't U.S. hemp?

19 The current stance is favoring  
20 international imports and squashing a fledgling  
21 domestic industry, a domestic organic market that  
22 is worth over \$15 million and growing which could

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1 be supporting a local farming economy, fostering  
2 sustainable agriculture, and building a domestic  
3 industry.

4 The federal government supported my  
5 research before hemp was even legal for research  
6 purposes. Now that it is legal for research, it  
7 is time the USDA support the local organic hemp  
8 industry by allowing organic certification, so  
9 that we may conduct robust economic research on  
10 organic hemp and because adding a new organic  
11 rotational crop will grow the organic industry and  
12 the U.S. farming economy.

13 (Timer rings.)

14 Thank you.

15 CHAIR FAVRE: Thank you very much.

16 Yes, Miles?

17 MR. McEVOY: Yes, in terms of the  
18 industrial hemp issue, I would just read something  
19 from our memo from February. Section 7606 of the  
20 Agricultural Act of 2014. "Authorized  
21 institutions of higher education and state  
22 departments of agriculture to establish industrial

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1 hemp research pilot programs in states where the  
2 production of industrial hemp is legal and subject  
3 to certain other conditions."

4 The problem is that our understanding  
5 is that there is some conflict with that provision  
6 and some other federal statutes. So, USDA has been  
7 working with the Department of Justice to clarify  
8 the provisions under federal law for growing  
9 industrial hemp. That guidance on producing  
10 industrial hemp in the U.S. is very close to being  
11 published. We thought it would come out this  
12 month. But, once that is published, then further  
13 guidance will be provided to certifiers in terms  
14 of how they could go about certifying hemp. Until  
15 then, since there has not been clarification under  
16 the 2014 farm bill, certifiers cannot certify  
17 industrial hemp.

18 CHAIR FAVRE: Dan?

19 MEMBER SEITZ: It has been a while  
20 since I have read about industrial hemp, but my  
21 memory is that it is an amazingly versatile crop,  
22 one that was revered by our Founding Fathers.

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1 I am just wondering, what, again, is the  
2 reason why it was outlawed? I understand there was  
3 a connection with marijuana. But if you could just  
4 clarify, so that we understand what the connection  
5 between hemp and marijuana is?

6 MS. ROUSE: Sure. So, industrial hemp  
7 and marijuana are in the same plant family as,  
8 actually, is beer hops. And marijuana and  
9 industrial hemp are different varieties of the  
10 Cannabis sativa L. plant species.

11 Marijuana is a high THC, which is  
12 tetrahydrocannabinol, the psychoactive ingredient  
13 found in marijuana, and it usually is between 5 to  
14 25 percent THC.

15 Industrial hemp, by definition, is less  
16 than 1 percent and, by regulation, is less than .3  
17 percent. This is in Canada and the U.S. and all  
18 across the world.

19 Back in 1937, industrial hemp was  
20 pushed under marijuana as the same plant and has  
21 been regulated under the Marijuana Tax Act of 1937.  
22 So, since then, it has been subjected to the same

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1 regulations as marijuana, even though the  
2 psychoactive ingredient that is found in both of  
3 them is by far less than what is found in marijuana.

4 Industrial hemp is used as a fibrous  
5 crop and as an oil in food, health food. So, you  
6 could use it in buildings, automobiles. It is a  
7 health food with high amino acids, and it has a  
8 near-perfect omega-3-to-omega-6 ratio. The oils  
9 can be used in cosmetics as well as ethanol, and  
10 you can also consume it, and you would not receive  
11 the psychoactive effects because that TCH is  
12 actually found in the flowers, not within the fiber  
13 or within the grain.

14 Thank you.

15 CHAIR FAVRE: Thank you very much.

16 Next up is Lydia Henshaw, and we have  
17 got Jaydee Hanson on deck.

18 MS. HENSHAW: Hello. My name is Lydia  
19 Henshaw, and I am representing Sow Organic, a  
20 digital platform for the organic supply chain.

21 Thank you, Distinguished Members of the  
22 Board, for the opportunity to testify today.

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1           This morning I am proposing that the  
2 NOSB take up discussion regarding incentive  
3 structures for organic operators, certifiers, and  
4 inspectors to adopt digital solutions for organic  
5 certification, administration, and production.

6           By digital solutions, I am referring  
7 directly to platforms, systems, and tools that  
8 improve productivity and workflow related to  
9 compliance with organic production and  
10 transparency, such as technologies to streamline  
11 organic certification management and modernize  
12 legacy systems from a paper-based existence.

13           This proposed request supports the  
14 Paperwork Reduction Act of 1980, and it is also  
15 similar in structure to the Organic Cost-Share  
16 Program introduced in recent years. In 2012, the  
17 Organic Cost-Share Program provided 10,000  
18 reimbursements, totaling over \$6 million, to new  
19 and existing operators. A similar reimbursement  
20 structure that encourages adoption of digital  
21 solutions across the supply chain could yield an  
22 exponential increase in productivity and

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1       profitability of organic operations. This can  
2       ensure a strong, scalable supply chain poised to  
3       meet increasing output demands in future years.

4               People, process, and platforms are  
5       fundamental components of an operating  
6       environment, and they are key to a sustainable  
7       industry. In a highly-transactional industry  
8       like organic, it is important to integrate both  
9       human and digital dimensions for agility and for  
10      longevity.

11             Enabling technology that supports  
12      administration and oversight will yield more  
13      capacity for regulation to focus on nuanced areas  
14      of organic production and administration;  
15      therefore, relieving burdens of compliance and  
16      increasing integrity for the long-term.

17             Sustainability for organic operations  
18      can be enabled through an intensified focus on  
19      technology. Industry incentives can encourage  
20      research and development of new engineering  
21      approaches using hardware and software to solve  
22      challenges in production and management. Greater

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1 efficiency in operations enables more capacity for  
2 value creation in organic production.

3 As an industry, we should aim to make  
4 it increasingly easier for organic operators,  
5 certifiers, and inspectors to adopt technology  
6 that can reallocate manpower into more  
7 value-creation activities, such as providing  
8 breakthroughs in the science of organic  
9 production. Therefore, the introduction of  
10 incentive structures for adoption of digital  
11 solutions is proposed in order to yield such  
12 benefits.

13 Thank you for the time, the  
14 consideration, and the opportunity to propose a  
15 solution for a more efficient, transparent, and  
16 agile organic industry of the future.

17 CHAIR FAVRE: Thank you very much.

18 Any questions?

19 (No response.)

20 All right. Thank you.

21 MS. HENSHAW: Thank you.

22 CHAIR FAVRE: Next up is Jaydee Hanson,

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1 and then, we have got Jennifer Lonergan on deck.

2 MR. HANSON: Good morning. I'm Jaydee  
3 Hanson, Senior Policy Analyst at the Center for  
4 Food Safety and a member of our science team. The  
5 Center for Food Safety has submitted extensive  
6 comments on past discussion documents on excluded  
7 methods. In our written comments for this cycle,  
8 we have provided additional feedback and  
9 scientific expertise on excluded methods.

10 CFS urges the Board, though, to refer  
11 this proposal back to Subcommittee and to consult  
12 with independent scientists to prepare a new  
13 proposal that clarifies and refines the  
14 definitions, principles, criteria, and  
15 terminology.

16 The definition and understanding of  
17 excluded methods must incorporate the full range  
18 of new plant, animal, microbe, genetic engineering  
19 methods and techniques. That said, the current  
20 NOP definition of excluded methods related to  
21 modern biotechnology should be seen as  
22 encompassing a broad swath of the significant new

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1 and emerging technologies. That definition will  
2 continue to be important as new technologies  
3 emerge.

4 The proposed guidance will serve as an  
5 additional benchmark when questions or concerns  
6 arise regarding a new technology, but cannot  
7 provide an exhaustive list of all future excluded  
8 methods. We understand the organizational  
9 methods of compiling the terminology chart on new  
10 and existing techniques, but it must be made clear  
11 that the chart does not and cannot encompass the  
12 full range of genetic engineering methods that  
13 would be considered excluded from organic  
14 production and processing.

15 We reiterate from our previous comments  
16 that all of the various new techniques would fall  
17 under the umbrella of genetic engineering that are  
18 examples of excluded methods; i.e., genetic  
19 engineering. However, there are other methods and  
20 techniques that fall outside the umbrella of  
21 genetic engineering that might also be considered  
22 objectionable to the organic community and

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1 incompatible with the underlying philosophy and,  
2 therefore, must also be considered excluded  
3 methods.

4 This is captured in the existing  
5 definition, and I quote, "a variety of methods used  
6 to genetically modify organisms or influence their  
7 growth and development by means that are not  
8 possible under natural conditions or processes and  
9 are not considered compatible with organic  
10 production". End of quote.

11 From this definition, any method that  
12 influences the growth and development of organisms  
13 by means not possible under natural conditions or  
14 processes should not be considered compatible with  
15 organic and would fall under the definition of  
16 excluded methods.

17 (Timer rings.)

18 I will point you to our rather  
19 extensive, marked-up comments. I think we have 10  
20 pages of comments just on excluded methods that we  
21 have provided you in writing.

22 CHAIR FAVRE: Thank you very much.

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1 Any questions?

2 Zea?

3 MEMBER SONNABEND: Thank you, and  
4 thank you for your ongoing participation in this  
5 effort, which I am the lead person on.

6 I have two questions.

7 MR. HANSON: Sure.

8 MEMBER SONNABEND: The first one is  
9 pretty simple. You do recommend that we send the  
10 criteria, in particular, principles and criteria  
11 back to engage with independent scientists. If we  
12 were to do that, would you have some independent  
13 scientists you could recommend for that  
14 consultation?

15 MR. HANSON: Yes, we would be happy to  
16 do that.

17 MEMBER SONNABEND: Okay. And then,  
18 the second question is, your organization didn't  
19 mention this, but others did: that it would be  
20 helpful if we also defined traditional plant  
21 breeding as one of the definitions, which is  
22 referred to in the excluded methods definition.

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1 Is that something you see value in?

2 MR. HANSON: I do see it valuable. In  
3 our written comments, we identified some things  
4 that are being used in traditional breeding methods  
5 that might in another context become an excluded  
6 method.

7 So, in our discussion on transposons,  
8 for example, and in discussions of things like  
9 cisgenics, you will have to unpack that definition  
10 of traditional breeding some more.

11 CHAIR FAVRE: Questions?

12 (No response.)

13 Thank you very much.

14 MR. HANSON: Thank you very much for  
15 your work and your time. As hard as it is to be  
16 in the audience sitting listening to all of this,  
17 you have to sit and be attentive to all of it. So,  
18 thank you very much.

19 CHAIR FAVRE: Thank you for that.

20 Next up is Jennifer Lonergan, followed  
21 by Britt Lundgren.

22 MS. LONERGAN: Okay. Good morning.

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1 My name is Jen Lonergan. I work at the Humane  
2 Society of the United States as a Regulatory  
3 Affairs Specialist.

4 I, first, want to say thank you for the  
5 opportunity to provide comments today. And more  
6 importantly, I want to thank the Board for your  
7 years of recommendations regarding animal welfare  
8 that were the basis for the recently-released  
9 proposed rule that we strongly support and we are  
10 really excited to see. And I am sure you all were  
11 just as excited, if not more so. So, thank you so  
12 much for all of your work.

13 I am here today to bring your attention  
14 to three key issues that the agency would love to  
15 see this Board address or continue to address in  
16 more detail in the future. Those issues are pain  
17 relief, calf hutches, and care for broiler  
18 chickens.

19 So, the first issue is pain relief for  
20 routine physical alterations such as castration  
21 and dehorning. We thank the NOSB for your work on  
22 this important issue in the past, and we support

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1 the Livestock Subcommittee's proposal to shorten  
2 the withholding period for two anesthetics,  
3 lidocaine and procaine. We hope that this will  
4 encourage their greater use.

5           USDA's newly-proposed animal welfare  
6 rule takes important steps on this topic, but it  
7 is not quite as strong as NOSB's recommendations.  
8 It is a little vague, and it may still allow  
9 substantial animal suffering by failing to address  
10 some of the most painful physical alterations.  
11 So, we will be submitting comments on the proposed  
12 rule in hopes of strengthening this section of that  
13 rule and making it more consistent with NOSB's  
14 recommendation.

15           The second concern is calf hutches used  
16 in dairy production. Young calves are energetic,  
17 playful, and social animals. Yet, on many  
18 operations they are confined individually in calf  
19 hutches with very little space.

20           Disease prevention is obviously  
21 important, but interaction and social contact  
22 could be better accommodated in dairy-rearing

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1 systems. Some producers are doing really well  
2 rearing calves in small groups, pair housing or  
3 collective hutches. And the research supports  
4 that these housing systems can be viable  
5 alternatives to individual hutches, pens, or  
6 tethering. So, we hope that the Board will  
7 consider recommending further integration of these  
8 systems in the organic program.

9 We're also concerned about the use of  
10 commercial broiler chicken genetics. These birds  
11 are bred for rapid growth, and because they  
12 accumulate excessive weight on an immature  
13 skeletal system, they are prone to debilitating leg  
14 disorders, metabolic disease, and poor immunity.  
15 Studies have been consistently showing that about  
16 30 percent of broiler chickens suffer from gait  
17 abnormalities that are significant enough to cause  
18 pain with locomotion. So, we hope that the organic  
19 program will require the use of more robust broiler  
20 chicken strains that are healthier and have better  
21 leg strength. Every major genetics company now  
22 has a slower-growing broiler chicken line, and

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1 heritage birds don't tend to suffer these effects  
2 to the same extent. So, we see these hardier lines  
3 as the solution.

4 (Timer rings.)

5 Thank you so much for considering our  
6 comments.

7 CHAIR FAVRE: Thank you very much.

8 Questions?

9 (No response.)

10 Thank you.

11 MS. LONERGAN: Thanks.

12 CHAIR FAVRE: Next up is Britt  
13 Lundgren, followed by Bob McGee.

14 MS. LUNDGREN: Hi, everybody. Thank  
15 you for this opportunity to comment.

16 My name is Britt Lundgren. I'm the  
17 Director of Organic and Sustainable Agriculture at  
18 Stonyfield. I have submitted detailed written  
19 comments, and I am going to focus today on nutrient  
20 vitamins and minerals.

21 Stonyfield supports the continued  
22 allowance of vitamins and minerals in certified

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1 organic foods, and we agree with the need to update  
2 and clarify the listing.

3 Stonyfield supplements many of our  
4 yogurts with vitamin D. Although this is not  
5 required by law, we do it because of the substantial  
6 health benefits that it provides. The 2015  
7 Dietary Guidelines say that vitamin D is an  
8 underconsumed nutrient of public health concern  
9 and note that yogurt is commonly fortified with  
10 vitamin D and, thus, a potential dietary source of  
11 this underconsumed nutrient.

12 Stonyfield supports a version of option  
13 2 that was presented by the Handling Subcommittee,  
14 and we suggest the listing should read, "vitamins  
15 and minerals as identified as essential in 21 CFR  
16 101.9 or as required for infant formula by 21 CFR  
17 Section 107.100 or 107.10".

18 This language ties the annotation to a  
19 clear listing of what vitamins and minerals are  
20 allowed and makes it clear that all other nutrients  
21 need to be petitioned and evaluated separately.  
22 This will make the requirements clearer,

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1 transparent, and easily understood by all.

2 We are concerned that the Handling  
3 Subcommittee's first option would force us to  
4 choose between providing consumers with a  
5 certified organic product or providing them with  
6 a product that meets their nutritional  
7 expectations for yogurt, most of which are  
8 fortified with vitamin D.

9 We are unaware of a nonsynthetic option  
10 for vitamin D and we would not be willing to switch  
11 our products to the "made with" category in order  
12 to continue using vitamin D in our products. The  
13 traditional distinction between the 95-percent  
14 organic category and the "made with organic"  
15 category is based solely on the volume of  
16 ingredients, not on which ingredients are allowed  
17 in the remaining 5 or 30 percent of the product.  
18 If we had to move to a "made with organic"  
19 designation for our products, the implication to  
20 many consumers might be less than 95 percent of the  
21 ingredients in our product are organic. And this  
22 would be confusing for many and a real disservice

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1 to the farmers who supply the organic ingredients  
2 that in reality make up over 95 percent of our  
3 products.

4 The NOSB has already done good work to  
5 address the need to refine the listing for vitamins  
6 and minerals in 2011. We urge USDA to complete the  
7 proposed rule that was issued based on these  
8 recommendations in 2012. NOSB does not  
9 necessarily need to issue a new recommendation on  
10 the annotation, but should use this opportunity to  
11 reinforce the message to USDA that their work on  
12 this topic needs to be completed. We hope that  
13 USDA NOP will take into account the additional  
14 comment from NOSB and move forward with completing  
15 the 2012 proposed rule.

16 In conclusion, we appreciate the work  
17 of NOSB on this topic and we are grateful for this  
18 opportunity to comment.

19 (Timer rings.)

20 I'm happy to answer questions.

21 CHAIR FAVRE: Zea?

22 MEMBER SONNABEND: Hi, Britt. Sorry

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1 to do this to you, but does Stonyfield use  
2 carrageenan in any of your products?

3 (Laughter.)

4 MS. LUNDGREN: I knew somebody was  
5 going to do that. We have just completed phasing  
6 it out of all of our products.

7 MEMBER SONNABEND: And what  
8 alternatives have you used?

9 MS. LUNDGREN: Gellan gum or  
10 discontinuing in some cases.

11 CHAIR FAVRE: Tom?

12 VICE CHAIR CHAPMAN: Can you speak a  
13 bit more to the discontinuing? Are there quality  
14 differences you have seen in the products  
15 reformulated?

16 MS. LUNDGREN: Well, I don't think we  
17 would have reformulated and kept something on the  
18 shelf if we felt quality was going to suffer  
19 significantly. So, my understanding is that R&D  
20 was able to find a satisfactory replacement. But  
21 there were a couple of cases where we couldn't find  
22 a satisfactory replacement in particular flavors.

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1 And so, we chose to discontinue those flavors.

2 VICE CHAIR CHAPMAN: Is it particular  
3 flavors of a product or is it like entire product  
4 lines?

5 MS. LUNDGREN: It is just particular  
6 flavors. So, one example is that we had some  
7 yogurt with caramel on the bottom, and the  
8 carrageenan was important for the -- I'm not the  
9 R&D person and I didn't really prepare to answer  
10 all these questions. So, it is important for  
11 something in that caramel, and we just couldn't  
12 find a substitute that worked the same way.

13 VICE CHAIR CHAPMAN: Thank you.

14 CHAIR FAVRE: Thank you very much.

15 Next up is Bob McGee, with Albert Straus  
16 on deck.

17 MR. MCGEE: Good morning. My name is  
18 Bob McGee, and I am the President of Straus Family  
19 Creamery.

20 Straus Family Creamery was the first  
21 creamery in the U.S. to be verified by the Non-GMO  
22 Project. Today we continue to have every load of

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1 feed tested for the presence of GMOs.

2 I'm here representing eight organic  
3 dairy farming families and their employees, plus  
4 the 140 employees of Straus Family Creamery and  
5 their families. Their livelihoods are very  
6 dependent upon the actions and decisions of the  
7 Board and the program.

8 I want to thank Zea and the Materials  
9 Subcommittee for the work on the excluded methods  
10 terminology proposal. In combination with the now  
11 three discussion documents, the proposal helps put  
12 a framework around the new GE technologies in a way  
13 that a layperson can better understand.

14 Several people have spoken today and  
15 yesterday about how the proposal is not perfect yet  
16 and needs more work. I respect their knowledge and  
17 points of view. Genetic engineering in all its  
18 forms is a very complex topic, one that is difficult  
19 to understand and define.

20 However, there are two very simple  
21 facts that I think all of us can agree upon. The  
22 biotech companies that have developed and are

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1 developing these new technologies are not going to  
2 wait to distribute their products until we meet in  
3 St. Louis nor until a new Administration is elected  
4 into office, makes it appointments, and comes up  
5 to the regulatory responsibilities.

6           Secondly, it seems to take quite a long  
7 period of time for the program to complete their  
8 work on proposals like this one. Do we really have  
9 one to two years, or maybe even longer, to wait?  
10 Even if the proposal isn't perfect, shouldn't we  
11 do something measured and well-considered? It is  
12 likely just the next step in a topic that will  
13 continue to challenge us and our farmers long into  
14 the future.

15           I encourage the entire Board to approve  
16 the proposal and for the program to act quickly on  
17 the recommended guidance.

18           Thank you.

19           CHAIR FAVRE: Questions?

20           Thank you.

21           Sorry. Tom?

22           VICE CHAIR CHAPMAN: Is it better to

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1 ask you or Albert about carrageenan in dairy  
2 products?

3 MR. MCGEE: You can ask either. We do  
4 not use any carrageenan. We use no thickeners in  
5 our yogurt. We occasionally use a little guar gum,  
6 but we don't use carrageenan at all.

7 VICE CHAIR CHAPMAN: And you haven't  
8 ever or recently since --

9 MR. MCGEE: Have we ever used  
10 carrageenan (speaking to someone in the audience)?

11 PARTICIPANT: There is one product  
12 where we used it and we took it out.

13 VICE CHAIR CHAPMAN: And did you see a  
14 quality difference in that product?

15 MR. MCGEE: No.

16 VICE CHAIR CHAPMAN: Thank you.

17 CHAIR FAVRE: Thank you very much.

18 Next up is Albert Straus, with Marni  
19 Karlin on deck.

20 MR. STRAUS: My name's Albert Straus.  
21 Thank you for letting me share my observations.

22 For the people that don't know me, I

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1 started the first organic dairy and creamery west  
2 of the Mississippi River in the beginning of 1994.  
3 We now have nine family farms that supply us, and  
4 about 80 percent of the dairies in Marin and Sonoma  
5 County are certified organic.

6 One of the concerns I have is for  
7 succession in the next-generation farmers. Some  
8 of the dairies in our area don't meet the pasture  
9 requirements, and rather than looking at it from  
10 a compliance issue, looking at it from a  
11 certification issue: how do you get a tool that  
12 can be used by certifiers consistently across the  
13 board to evaluate whether a farm has enough acreage  
14 to meet the pasture standard?

15 So, I kind of came up with this tool.  
16 It is just a way to kind of look at, given optimistic  
17 amounts of pasture, dry matter, and meeting the  
18 minimum requirements in how many animals could be  
19 supported off of a piece of land -- anything like  
20 this would help consistently across the  
21 certifiers.

22 Then, the other thing I wanted to talk

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1 about was there's a lot of issues around -- I have  
2 been farming all my life. What I notice is that  
3 a healthy animal doesn't need parasiticides. I  
4 mean, it is not something that is really -- well,  
5 I haven't used parasiticides in our cows for 30  
6 years and haven't had any problems. Calves, we had  
7 to use it once last year because we had a group of  
8 underperforming calves that got worms, which I  
9 haven't had in over a decade.

10 So, I think a healthy animal is  
11 something that is a concern of mine because, if you  
12 look at the grass-fed rules or grass-fed standards  
13 and labeling, which is the marketing label, not  
14 something that is going to help meet organic  
15 standards, meaning it is not going to help the  
16 viability of farmers. It is not going to help  
17 animal health or welfare. And so, I have huge  
18 concerns about having grass-fed as a term that is  
19 being used as a replacement or as an addition to  
20 organic certification. So, those are the kinds of  
21 comments I wanted to talk about.

22 The one other thing I wanted to talk

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1 about was, as we all get older, the next generation  
2 and succession farming is a huge issue that we are  
3 dealing with, and I think we will have to deal with  
4 as an industry.

5 (Timer rings.)

6 Thank you.

7 CHAIR FAVRE: Questions?

8 Dan? Then, Emily?

9 MEMBER SEITZ: What do you do  
10 differently in terms of management that makes it  
11 possible for you to raise your herds without using  
12 parasiticides or virtually without using them?

13 MR. STRAUS: Balanced nutrition for  
14 the animals, best management practices on pasture,  
15 not overgrazing, not feeding feed on the ground  
16 like supplemental feeds, like hays, where you can  
17 get them eating off the ground and picking up worms.  
18 I mean, just kind from the calf all the way through,  
19 if you don't get a good start with a calf, get good  
20 colostrum, get good nutrition, you will have  
21 problems throughout their life.

22 CHAIR FAVRE: Emily?

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1                   MEMBER OAKLEY:    Do you, then, have  
2                   recommendations for how the emergency use should  
3                   be defined?

4                   MR. STRAUS:    As far as parasiticides?  
5                   I think there should not be any allowance in milking  
6                   cows for parasiticides.    If they have to use a  
7                   parasiticide, they are no longer organic.    And the  
8                   second thing is, yes, that would negate the need  
9                   to go from 90 days to two days.    And so, I think  
10                  that, yes, we should limit the use.    I think we  
11                  should not use it as a crutch.

12                  I have had to retrain our veterinarians  
13                  from the very beginning not to use conventional  
14                  ideas and remedies.    And it is something that is  
15                  hard to do for most people, but over experience and  
16                  over time you figure out ways of doing it as  
17                  preventative rather than as a crutch and a  
18                  solution.

19                  CHAIR FAVRE:    Harriet?

20                  MEMBER BEHAR:    Hi, Albert.

21                  MR. STRAUS:    Hi, Harriet.

22                  MEMBER BEHAR:    I have been to your farm

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1 and it is a very unique ecosystem, quite beautiful,  
2 right there on the ocean. I think you can really  
3 get grass to grow there that other sections of the  
4 country, you know, we need more land per animal just  
5 because it is hard, unless you are irrigating, or  
6 whatever.

7 So, I just think, even the parasiticide  
8 issue, as we look at our standard is international,  
9 that not everyone would have somewhat of the ideal  
10 situation that you have in grazing and management.

11 MR. STRAUS: I wouldn't characterize  
12 our place as ideal. This is the first normal  
13 winter out of five years. We have had challenges  
14 of meeting the pasture standard for a few years.  
15 So, I think we have our challenges. We all have  
16 our challenges with our regions, but I think it  
17 comes back to management practices and prevention.

18 Yes, I agree that there's different  
19 scenarios and different things, but I think farmers  
20 can do their job in the areas that they farm. And  
21 some scenarios where they have too many animals on  
22 a small piece of land, look at all these different

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1 criteria and say maybe we shouldn't be that big or  
2 we don't have enough land or the land can't sustain  
3 that.

4 So, I hope that answered your question.

5 CHAIR FAVRE: Thank you very much.

6 MR. STRAUS: Thank you.

7 CHAIR FAVRE: Next up is Marni Karlin,  
8 with Rhodes Yepsen on deck.

9 MS. KARLIN: Good morning. My name is  
10 Marni Karlin, and I'm Vice President of Government  
11 Affairs and General Counsel for the Organic Trade  
12 Association.

13 I'm here this morning to comment on the  
14 excluded methods terminology proposal. OTA  
15 continues to support a process-based approach to  
16 evaluating the use of excluded methods. We  
17 believe that the proposed definitions will be  
18 useful and, with some revisions, they will be  
19 proposal-ready.

20 The terminology chart and the criteria  
21 and principles, however, need a little more time  
22 and attention. OTA recommends taking the entire

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1 proposal back to Subcommittee for further work,  
2 with the goal of releasing a final proposal prior  
3 to the fall 2016 NOSB meeting. We also recommend  
4 separating out the definitions from the rest of the  
5 proposal and moving the definitions section  
6 forward as an independent recommendation.

7 With respect to the definitions, OTA  
8 supports the proposed definition for modern  
9 biotechnology, but requests that NOSB reference  
10 Codex rather than the Cartagena Protocol since  
11 Codex is both recognized by the U.S. and referenced  
12 by the World Trade Organization. Adopting Codex  
13 definitions will help support both U.S. trade and  
14 interagency coordination.

15 In our written comments, we suggested  
16 revisions to the rest of the proposed definitions.  
17 And the one I want to focus on now is the definition  
18 of non-GMO. OTA thanks the Subcommittee for  
19 including this definition, as it is critical, given  
20 the final FDA guidance on voluntary GE labeling and  
21 the various state and federal initiatives in play  
22 regarding labeling of genetically-engineered

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1 foods.

2 As Congress continues to work on the  
3 presence labeling legislation, it is critical that  
4 organic have a clear non-GMO definition in place.  
5 A clear definition of the terms "non-GMO" and  
6 "organic" is critical, as others are moving to  
7 define what may or must be labeled with a presence  
8 claim.

9 The term "non-GMO" is commonly used  
10 throughout the organic sector on labels and  
11 marketing materials to mean that the product was  
12 produced and handled without the use of excluded  
13 methods, as required by the organic regulations.  
14 Unlike the term "GMO-free," the term "non-GMO" does  
15 not necessarily mean a product is 100 percent of  
16 GMOs, but is a process-based claim. Securing a  
17 definition of non-GMO in NOP guidance will bolster  
18 the consistent use and interpretation of this  
19 frequently-used term, particularly in the face of  
20 others moving to define presence in other contexts.

21 The Subcommittee's proposed definition  
22 of non-GMO captures some, but not all, of the

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1        comments we submitted in the fall of 2015. And we  
2        have suggested a revision in our written comments  
3        that we feel more precisely and accurately  
4        articulates the parameters around non-GMO.

5                        With respect to the terminology chart,  
6        we continue to believe that such a chart would be  
7        very useful in guidance, and we believe both the  
8        chart and the principles and criteria need a little  
9        more work and more public input before they will  
10       be ready to move forward. If there is general  
11       agreement from public commenters that this section  
12       needs more work, OTA would be willing to form a task  
13       force and prepare comments in advance of the fall  
14       meeting.

15                      In conclusion, I want to thank you all  
16       again for your work on this. We continue to be  
17       extremely supportive of moving recommendations  
18       forward to NOP that will not improve the practices  
19       used to keep GMOs out of organic seed, feed, and  
20       crops, but will also clarify the standards and  
21       terminology.

22                      (Timer rings.)

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1 Thank you.

2 CHAIR FAVRE: Questions?

3 (No response.)

4 Thank you very much.

5 MS. KARLIN: Thank you.

6 CHAIR FAVRE: Next up is Rhodes Yepsen,  
7 followed by Peggy Miars on deck.

8 MR. YEPSSEN: Hi. My name is Rhodes  
9 Yepsen. I'm the Executive Director of the  
10 Biodegradable Products Institute. We are a  
11 nonprofit that promotes the production, use, and  
12 appropriate end of lives for biodegradable  
13 materials.

14 I would like to address the NOP Policy  
15 Memo 15-1 which states that biodegradable mulch  
16 film must be 100-percent bio-based. This misses  
17 the point of what was petitioned and approved. The  
18 key attribute is for that mulch film to completely  
19 and safely biodegrade in the soil. This  
20 functionality is entirely separate from bio-based  
21 content. I would request that you please stand by  
22 the original approval.

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1                   And I would like to share my time slot  
2 with Drew and Joan Norman of One Straw Farm, so you  
3 can hear directly from farmers about their  
4 experience with soil biodegradable mulch film.

5                   Thanks.

6                   MR. D. NORMAN: Good morning. My name  
7 is Drew Norman, and I run One Straw Farm, which is  
8 an organic farm, but not a certified organic farm  
9 at this point.

10                  We were probably one of the first farms  
11 certified in the State of Maryland in 1986. So,  
12 it is with sadness that I withdrew my application  
13 for certification in 2012 because of my desire to  
14 use a biodegradable mulch film.

15                  I use these films because they  
16 eliminate the disposal problem that we have with  
17 polyethylene films. They enable me to get my cover  
18 crops in the ground more quickly in the fall. And  
19 I find they are actually probably cheaper to use  
20 in the long-run when you take into account disposal  
21 cost of polyethylene films.

22                  Thank you.

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1 MS. J. NORMAN: I just want to say that  
2 we actually withdrew our application and were told  
3 that, when it was approved, that we would be able  
4 to reapply again. So, we found out that bio-based  
5 films were approved and, then, we applied  
6 immediately and, then, found out very shortly  
7 afterward for a second time we had to withdraw our  
8 application for certification. We would love to  
9 be certified organic once again. So, we really  
10 hope that this gets changed and adjusted. And  
11 then, we can reapply immediately for our  
12 certification once again.

13 Thank you very much.

14 CHAIR FAVRE: Questions?

15 Zea?

16 MEMBER SONNABEND: Thank you both for  
17 coming once again and not giving up on this, what  
18 has turned into quite an involved, laborious  
19 process.

20 When you first made the decision to give  
21 up your certification in order to use the product,  
22 did you ask questions about how much of the material

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1 was bio-based and did you have a sense of what the  
2 components are of what you were putting down? Or  
3 did you only look at the question of it breaking  
4 down all the way?

5 MR. D. NORMAN: I did as much research  
6 that I could with the information that was  
7 available. I certainly know much more about it  
8 today than I did five years ago, and that's through  
9 this whole process that you all have gone through.  
10 I have been kept abreast of all the information that  
11 was gathered.

12 But it was not a decision taken lightly  
13 by us, by any means. And I recognized that it was  
14 a synthetic product and it potentially had  
15 consequences, but, for the most part, our decision  
16 was based on the fact that it was approved in other  
17 parts of the world. And then, that is really why  
18 we decided that we were going to use it, and then,  
19 for the rest of the reasons, quite frankly.

20 CHAIR FAVRE: Francis?

21 MEMBER THICKE: Well, what is your  
22 experience with it breaking down at the end of the

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1 season? Visually, what do you see and the  
2 timeframe and what happens? Do you till it in?

3 MR. D. NORMAN: During the  
4 biologically-active part of the season, i.e.,  
5 summer when it is warm and moist, it breaks down  
6 very quickly. So, within, say, two weeks of laying  
7 the mulch, if you go right to where you are having  
8 soil contact with it on both sides, you can't  
9 separate the mulch from the soil anymore. It looks  
10 like a decayed leaf at that point. So, once it's  
11 in the soil, it breaks down very quickly.

12 The reason it stays put is it sort of  
13 kind of sticks to the surface of the soil. So,  
14 while the edges have decayed already -- and we're  
15 talking in less than a month -- what part that I  
16 am growing through stays intact. So, if I use  
17 mulch in the spring and till it in the ground in  
18 August, by October the only pieces that I'm seeing  
19 are the pieces that aren't mixed in with the soil.

20 And, you know, I live in Maryland. So,  
21 we have a very biologically-active soil. It's  
22 warm. It's moist.

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1 CHAIR FAVRE: Harriet?

2 MEMBER BEHAR: Can you compare to me  
3 the difference in labor or why you have decided to  
4 not use a plastic mulch that is allowed that you  
5 have to remove?

6 MR. D. NORMAN: I figure it takes like  
7 four people several hours to completely remove  
8 polyethylene mulch from the field. And then, we  
9 have the expense of disposing of it, too.

10 You know, I am sure that is something  
11 that every organic farmer struggles with when he  
12 uses polyethylene mulch, is the fact that he is  
13 taking something and using it and, then, having to  
14 throw it away. It is not recyclable. It is too  
15 dirty.

16 MS. J. NORMAN: We still do use the  
17 polyethylene mulch in addition to the  
18 biodegradable one. We use both of them, which we  
19 do dispose of properly.

20 CHAIR FAVRE: Emily?

21 MEMBER OAKLEY: Do you have any  
22 concerns for growers in more dry and

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1 less-biologically-active soil conditions, like a  
2 desert environment or even just a colder  
3 environment without such a long growing season?

4 MR. D. NORMAN: Well, like if I use it  
5 late in the fall, it does not degrade over the  
6 winter at all, even if it is worked into the soil.  
7 I mean, our soils are frozen most of the wintertime.  
8 So, it sits there all winter long. But, come  
9 spring, as soon as things warm up, it disappears  
10 very quickly.

11 MS. J. NORMAN: But if it doesn't work  
12 for you, you wouldn't use it. There's plenty of  
13 things that we can use that we don't.

14 CHAIR FAVRE: Thank you very much.

15 MS. J. NORMAN: Uh-hum.

16 MR. D. NORMAN: Thank you.

17 CHAIR FAVRE: Next up is Peggy Miars,  
18 followed by Jackie Sleeper on deck.

19 MS. MIARS: Good morning. I'm Peggy  
20 Miars, Executive Director of OMRI, the Organic  
21 Materials Review Institute.

22 Thank you to the creators of the NOSB

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1 training presentation which is posted on the NOP  
2 website, and on the screen is slide 7 of the  
3 presentation. But there is a piece missing.

4 OMRI is an important stakeholder in the  
5 organic community. The NOP allows certifiers to  
6 accept OMRI decisions, and OMRI is a technical  
7 report contractor. The NOSB uses those technical  
8 reports in their work, and we have provided  
9 information, when requested by NOSB subcommittees.

10 Certifiers subscribe to OMRI and  
11 receive technical assistance, and they rely on OMRI  
12 product decisions. Certified operations also  
13 rely on the OMRI products list when sourcing inputs  
14 for which the certifier has final approval.

15 And consumers rely on the OMRI list and  
16 seal when they choose products at their home and  
17 garden retailers.

18 So, for those of you new to the NOSB,  
19 you will see OMRI commenting at every meeting, and  
20 we are a resource for material, review information,  
21 and technical assistance.

22 Next, because OMRI was spotlighted in

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1 the public lately, I am compelled to address some  
2 lies and innuendo. What is true is that OMRI  
3 authored the recent technical report on  
4 carrageenan, as well as several other technical  
5 reports over the last three years.

6 In a recent online report, OMRI was  
7 alleged to include the following statement in the  
8 technical report. Quote, "Carrageenan can be  
9 avoided by sensitive individuals as it is included  
10 in the label." End quote. That statement is not  
11 in the technical report authored by OMRI.

12 That same report insinuated that,  
13 because of a job I held six to twelve years ago,  
14 that I am somehow in collusion with Zea Sonnabend  
15 to continue to allow carrageenan. And that is  
16 quite a stretch of the imagination.

17 There was a statement made yesterday  
18 that OMRI's Board includes a representative from  
19 General Mills. That is a lie. As far as I know,  
20 no one from General Mills has ever served on OMRI's  
21 Board of Directors. However, nothing prohibits  
22 someone from General Mills from serving as long as

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1 they meet the requirements of the position.

2 OMRI's volunteer Board is made up of  
3 designated seats, similar to the NOSB. Our bylaws  
4 require a certain number or percentage of seats for  
5 organic farmers, handlers, certifiers, public  
6 interest representatives, and input suppliers.  
7 There's also an optional seat for one individual  
8 nominated by the OTA and an optional non-voting  
9 seat for one individual nominated by NOP.  
10 However, I don't believe that the NOP has ever  
11 nominated anyone for our Board.

12 The designated seat design is intended  
13 to ensure that our Board represents the various  
14 stakeholder groups that we serve. None of the  
15 groups except for certifiers and public interest  
16 may comprise more than 25 percent of the Board.

17 OMRI's Board of Directors does not make  
18 product listing decisions and is not involved in  
19 technical report writing.

20 OMRI is a nonprofit organization that  
21 uses a fee-for-service model. Just as certifiers  
22 are paid for the services they provide to their

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1 customers, OMRI is paid for services that we  
2 provide to our customers.

3 We maintain a strict  
4 conflict-of-interest policy for all staff and  
5 volunteer personnel.

6 OMRI does not take positions for or  
7 against materials. Our job is to review product  
8 compliance to organic standards.

9 (Timer rings.)

10 We are a neutral ISO 17065 accredited  
11 material review organization that was created by  
12 and for the organic community.

13 And I thank you for allowing me to  
14 provide more transparency of OMRI.

15 CHAIR FAVRE: Questions?

16 Harriet?

17 MEMBER BEHAR: As a former OMRI Board  
18 member, thank you for all the work that OMRI does  
19 and how trusted you are in the organic community.

20 MS. MIARS: Thank you.

21 CHAIR FAVRE: Thank you, Peggy.

22 Next up is Jackie Sleeper, with Mabell

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1 Rivas on deck.

2 MS. SLEEPER: All right. Hello. I'm  
3 Jackie Sleeper, Farm Program Technical Specialist  
4 with Oregon Tilth Certified Organic, or OTCO.

5 We thank the NOSB for their hard work  
6 and dedication to sound improvement of the National  
7 Organic Standards.

8 We were delighted to hear yesterday  
9 that the CACS has added the review of NOP  
10 Instruction 2027 specifically regarding inspector  
11 onsite performance evaluations to their work  
12 agenda, as I will be providing comments on this  
13 today. So, thank you very much.

14 There is no doubt that we must have  
15 well-qualified and trained inspectors performing  
16 high-quality organic inspections. This is vital  
17 to the integrity of the organic industry.

18 Certifiers must conduct annual  
19 performance evaluations of all staff and  
20 contractors, including inspectors, per the rule at  
21 205.501(a)(6). Oregon Tilth evaluates inspectors  
22 each year using collective feedback from operator

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1 surveys and inspection report reviews, and we  
2 address any need for improvement or additional  
3 training identified during these evaluations.

4           However, we have concerns about the  
5 unintended impacts of this instruction requiring  
6 annual onsite inspector evaluations. We agree  
7 with the comments given yesterday by Pat Kane of  
8 ACA and several other certifiers concerning the NOP  
9 interpreting their own recommendations as  
10 requirements and a lack of clarity about the reason  
11 the NOP feels these field evaluations are necessary  
12 on an annual basis.

13           I would like to address several of the  
14 questions I heard the Board ask about this topic  
15 yesterday.

16           The first, what are the potential and  
17 current impacts? So, one impact is financial.  
18 Cost to perform annual field evaluations adds up  
19 quickly for a larger certifier. OTCO uses over 60  
20 staff and contract inspectors to perform our  
21 inspections in the U.S., Canada, and Mexico. We  
22 estimate the cost for each field evaluation

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1 averages \$500 per inspector, which adds up to over  
2 \$30,000 per year. Those costs will end up being  
3 passed onto the certified operations.

4 Another impact is the reduction in the  
5 inspector pool. In an attempt to minimize the  
6 financial impact on our organization and our  
7 clients, OTCO is not using inspectors that don't  
8 perform enough inspections to justify the cost of  
9 their field evaluation.

10 Reducing the inspector pool has impacts  
11 of its own. Fewer inspectors lead to increased  
12 travel costs, as we no longer have inspectors  
13 located in regions with fewer clients. It also  
14 increases the workload on our remaining  
15 inspectors, which could lead to inspector burnout  
16 and potentially lower-quality inspection work.

17 And lastly, it decreases opportunities  
18 for new inspectors to gain experience, as it may  
19 not be financially-viable for certifiers to work  
20 with them.

21 So, what alternative approach might be  
22 taken? OTCO supports allowing certifiers to

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1 implement a risk-based approach to field  
2 evaluations for inspectors. For example,  
3 certifiers could develop a set of criteria to  
4 identify high-risk inspectors such as those with  
5 less experience or with documented performance  
6 concerns, and have a plan to perform field  
7 evaluations proportionate to risk, such as  
8 annually for high-risk inspectors and once every  
9 three years for all others.

10 We are thankful that the NOSB will take  
11 up this discussion and allow public input on any  
12 recommendation. We believe that, by working  
13 together on this topic, we can address the concerns  
14 and issues this instruction document is trying to  
15 correct and ensure we have a strong evaluation  
16 system for all personnel, including inspectors.

17 Thank you.

18 CHAIR FAVRE: Jean?

19 MEMBER RICHARDSON: Thank you.

20 Just to request that you could email us  
21 your comments, because I don't think we have those  
22 in the written record right now, and it went quickly

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1 and I didn't get all the notes.

2 MS. SLEEPER: I would be happy to do  
3 that.

4 MEMBER RICHARDSON: Thank you.

5 CHAIR FAVRE: Thank you very much.

6 Next up is Mabell Rivas, followed by  
7 David Hiltz on deck.

8 MS. RIVAS: Hello. My name is Mabell  
9 Rivas, and I am a Senior Reviewer for QAI. For  
10 those new on the Board, QAI is an accredited  
11 certification agency. I'm just going to address  
12 three topics today.

13 On the discussion paper about the idea  
14 of ACAs sampling for the purpose of collecting  
15 data, we think that the only feasible way for ACAs  
16 to perform this function is if it is to be made part  
17 of the current testing programs that follow the  
18 criteria in 205.670.

19 However, the proposal as laid out would  
20 not allow us to follow this criteria. For example,  
21 ACAs would have to not be available to take actions  
22 when positive test results are obtained. Also,

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1 per regulation, test results are to be made  
2 available to the public. The proposal suggests  
3 that we will keep these results confidential.

4 Also, this type investigation places a  
5 financial burden on both the certifier and  
6 operators involved even if the contamination is not  
7 the fault of the operator. For that reason, the  
8 period should fall under the non-organic seed  
9 providers, not the organic industry.

10 On the ancillary substances proposal,  
11 we support the definition, criteria for  
12 compliance, and procedure for review of ancillary  
13 substances. However, on the criteria for  
14 compliance, we echo the concerns others have  
15 expressed about the restriction regarding known  
16 carcinogens.

17 While we agree with the intent, some  
18 substances that appear on this list are commonly  
19 used in materials on 605. So, implementation  
20 might be difficult. For example, silica is widely  
21 used and mineral oil, used in regenerative  
22 cellulose casings.

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1           And then, the third topic is on nutrient  
2 vitamins and minerals. We are concerned that  
3 limiting the use in those situations where  
4 fortification is not required by law will have a  
5 significant negative impact on the industry.

6           We must keep in mind that the main  
7 organic category is confusing and, honestly, the  
8 least preferable. We wonder about how this change  
9 might impact consumer trust.

10           In addition, this change of annotation  
11 will involve the relabeling of hundreds of  
12 products. This could be a real nightmare.

13           On the other hand, we are comfortable  
14 with option 2 and the proposal. We think it  
15 captures the intent for the annotation approved in  
16 1995. In addition, its implementation will be the  
17 least detrimental to the health of the organic  
18 industry. We feel that most certified fortified  
19 products already follow the proposed approach. If  
20 the Board goes with this option, however, we  
21 propose the allowance of vitamins and minerals,  
22 non-synthetic vitamins and minerals, Annotation 3

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1 in the proposal.

2 We would like to mention that none of  
3 the proposals by the NOSB include reference to  
4 organic dietary supplements or personal care  
5 products. The NOSB recommendation for annotation  
6 as stating it is specifically for foods will  
7 require complete reformulation of hundreds, if not  
8 thousands, of products.

9 Thank you.

10 CHAIR FAVRE: Questions?

11 (No response.)

12 Thank you very much.

13 MS. RIVAS: Thanks.

14 CHAIR FAVRE: Next up is David Hiltz,  
15 followed by Ross White on deck.

16 MR. HILTZ: Good morning and thank you  
17 for the opportunity to comment today.

18 My name is David Hiltz. I'm a  
19 scientist at Acadian Seaplants, a Canadian company  
20 that has been manufacturing aquatic plant products  
21 for over 35 years.

22 After attending the meeting in San

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1 Diego and hearing minimal opposition to the renewal  
2 of aquatic plant extracts, I was surprised to see  
3 the close results of the renewal vote held last  
4 fall. Reviewing the meeting transcripts, I saw  
5 that Dr. Hadlock Seeley had made comments  
6 suggesting that aquatic plant harvesting is an  
7 unsustainable practice.

8 My colleague, Dr. Raul Ugarte, a  
9 resource scientist with Acadian Seaplants, has  
10 been studying and publishing on the ecology of  
11 aquatic plants for over 25 years. Dr. Ugarte has  
12 submitted detailed comments and supporting  
13 documents to challenge some of these claims. And  
14 while I will try to summarize the key points, I will  
15 suggest that you review carefully the full comments  
16 that were submitted online.

17 Dr. Hadlock Seeley is an activist for  
18 the Rockweed Coalition, a group who seeks to end  
19 commercial rockweed harvesting and would have you  
20 believe that overharvesting is a widespread  
21 practice. She cites a report from the Canadian  
22 Government as evidence, but fails to point out that

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1 the last incident of overharvest mentioned in that  
2 report was from 25 years ago, before the current  
3 regulations and sustainable harvest methods were  
4 implemented.

5 In fact, using these methods of maximum  
6 set exploitation rates and minimum cut heights  
7 developed in conjunction with Canadian Government  
8 scientists, there have been no recent reports of  
9 overharvesting, despite the considerable  
10 expansion of the industry.

11 The body of evidence simply does not  
12 suggest that rockweed harvesting damages fish or  
13 mollusk habitat. In fact, to the contrary,  
14 recently-published studies have shown no long-term  
15 effects on marine habitat in a  
16 commercially-harvested area.

17 In her comments, Dr. Hadlock Seeley  
18 carefully used photographs showing a bare rock in  
19 a harvested area and suggested it was a good example  
20 of the effects of overharvest. If one looks very  
21 closely at that photograph, one would see that the  
22 rock is surrounded by beds of healthy, full-cover

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1 rockweed. The bare rock is no more an example of  
2 overharvesting than would a single tree stump be  
3 an example of clear-cutting.

4 Rockweed harvesting is a  
5 closely-regulated industry in Canada, and the  
6 sustainable harvest and technique used for many  
7 years has been recognized globally as a successful  
8 management model that other regulators are now  
9 considering for their areas.

10 The industry needs a healthy resource  
11 in order to continue to grow, and the evidence we  
12 have submitted supports the sustainable management  
13 plan being used is working. We urge the NOP and  
14 the NOSB to carefully consider all of the science  
15 and facts when developing the new technical report  
16 on aquatic plant extracts, as it was mentioned  
17 yesterday.

18 Thank you.

19 CHAIR FAVRE: Questions?

20 (No response.)

21 MR. HILTZ: Thanks.

22 CHAIR FAVRE: Thank you very much.

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1                   Next up is Ross White, with Beth Unger  
2 on deck.

3                   MR. WHITE: Good morning. My name is  
4 Ross White, and I'm the Nutrition Technical Manager  
5 for the FMC Health and Nutrition business in the  
6 Americas.

7                   I'm here today in support of the  
8 continued listing of carrageenan in 205.605(a) as  
9 an approved nonsynthetic ingredient in U.S.  
10 organic foods. Specifically, I would like to  
11 speak to you about the essentiality of carrageenan  
12 in both organic and non-organic foods and highlight  
13 the importance of this ingredient to food  
14 formulators.

15                   With over 25 years in the food industry  
16 as a product developer, a formulator, and manager  
17 of other formulators, one thing that has become  
18 very clear to me is that all stabilizers and  
19 emulsifiers are not equal. Though they each  
20 provide various opportunities and challenges  
21 depending on the food systems, the wide range of  
22 functionality provided by carrageenan makes this

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1 particular stabilizer essential to the food  
2 formulator.

3 Carrageenan can provide functionality  
4 at very low use levels, parts per million in many  
5 cases, and the range of its functionality often  
6 allows formulators to create products without the  
7 need for additional stabilizers. In specific  
8 instances like organic infant formula in the United  
9 States, carrageenan is the only approved choice of  
10 formulators.

11 Carrageenan can be used to achieve a  
12 range of textures from a low-viscosity refreshing  
13 mouthfeel to something that is creamy and  
14 indulgent. Many other additives must often be  
15 used in combination to achieve the same desired  
16 effects, and this can result in higher formulating  
17 cost, greater complexity in formulating, and  
18 longer ingredient declarations.

19 Further, there are often challenges  
20 that occur when formulating with many of the other  
21 additives, and that ranges from instability in the  
22 form of separation to a lack of cohesiveness, all

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1 resulting in reduced quality, compromised  
2 esthetics, and shorter shelf life in some cases  
3 that can deter product quality and repeat purchase.

4 Given the range of functionality and  
5 texture that carrageenan can provide, it also has  
6 become an essential ingredient when formulating  
7 healthier food options. Our country is faced with  
8 rising obesity and chronic disease, and when fats,  
9 salt, sugar, and other ingredients are reduced or  
10 removed, the foods lose the texture that consumers  
11 have come to accept. Carrageenan is essential in  
12 replacing these textural attributes and can often  
13 do so alone, ensuring that consumers can select  
14 healthy choices without sacrificing taste and  
15 texture. And this is not always the case when  
16 combinations of other ingredients and emulsifiers  
17 are used.

18 Reformulating away from carrageenan  
19 can be a very lengthy and expensive process. It  
20 often results in reduced product quality.

21 Many organic food producers have  
22 experienced this recently, and several have

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1 admitted that, in spite of their beliefs in the  
2 safety of carrageenan, their reformulations were  
3 driven by flawed science and misinformed  
4 consumers. Many have struggled to reformulate  
5 their products and maintain the quality that those  
6 same consumers expect to have each time they buy  
7 their product. And that further proves the  
8 essentiality of carrageenan and the need to have  
9 it as an approved option for use in foods of an  
10 organic nature and beverages as well.

11 And then, here you can see a list of our  
12 customers and partners who stand with us in  
13 affirming the safety of carrageenan and the  
14 essentiality of its use in organic foods.

15 Thank you.

16 (Timer rings.)

17 CHAIR FAVRE: Good job.

18 MR. WHITE: Thanks.

19 CHAIR FAVRE: Questions?

20 Tom?

21 VICE CHAIR CHAPMAN: Are any of those  
22 customers producers of organic products?

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1 MR. WHITE: Yes, some are.

2 VICE CHAIR CHAPMAN: Which ones?

3 MR. WHITE: Specifically, there are  
4 individuals that have organic products in their  
5 product line. So, Chicago Vegan Foods, and there  
6 are a few others up there. I'm not specifically  
7 clear on all those that are up there, though.

8 VICE CHAIR CHAPMAN: Okay. Thank you.

9 I wanted to ask you a question about a  
10 settling of a products in the use of carrageenan,  
11 particularly around liquid infant formula.

12 MR. WHITE: Sure.

13 VICE CHAIR CHAPMAN: Previous  
14 commenters yesterday spoke to that being a  
15 necessity. Can you speak a little bit more to why  
16 it is needed in liquid infant formula, in  
17 particular?

18 MR. WHITE: Infant formula is a  
19 specific case, Tom. And the concern that I have  
20 is, when formulators are looking at applications,  
21 there is a wide diversity in the range of those  
22 applications. So, specifically in infant

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1 formula, we talked about yesterday the shaking  
2 option. I don't think that is very practical in  
3 many cases. But, as you get into more complex  
4 formulations that might require higher protein or  
5 higher degrees of fortification, that is really  
6 where the essentiality of carrageenan comes in.

7 And it can be used alone. It is not to  
8 say there aren't any other options, but I think the  
9 goal is to provide consistency so that those  
10 consumers are getting the same product over and  
11 over again.

12 I would say, when you get beyond infant  
13 formula and you get to medical nutritionals,  
14 high-protein beverages, we heard some producers  
15 earlier that talked about the yogurt application.  
16 I think the theme there is that formulations are  
17 different within a category. As complex  
18 ingredients change, as the other ingredients that  
19 they have in there change, you heard both success  
20 and failure stories about their ability to  
21 reformulate products.

22 So, I think the key is essentiality, so

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1 that it is across the board; really widening the  
2 options for the organic consumer. We want to make  
3 sure that, as that organic market grows, people  
4 have more options, not fewer options.

5 CHAIR FAVRE: Thank you very much.

6 MR. WHITE: Thank you.

7 CHAIR FAVRE: Next up is Beth Unger,  
8 with Stephen Walker on deck.

9 MS. UNGER: Hello. I am Beth Unger.  
10 I work with CROPP Cooperative, a farmer-owned  
11 cooperative producing nothing but organic products  
12 under the Organic Valley and the Organic Prairie  
13 brands.

14 There are three items I would like to  
15 cover and, also, give you some of this time back  
16 because the day is fading fast.

17 Cellulose is one of the items that is  
18 up for 2018 sunset review that we wanted to see  
19 remain on the list. We use cellulose in two  
20 different ways in our Organic Prairie products.  
21 We use peelable cellulose casings on our hotdogs.  
22 It is a very important part of that process.

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1           One of the questions you asked is, what  
2           is the alternative?     Plastic.     Not a good  
3           alternative.   It doesn't function as well, and it  
4           is certainly is not as sustainable.

5           The other form of cellulose we use is  
6           a powdered cellulose as an anticaking material for  
7           our shredded cheeses.   It is used in a minimal  
8           quantity to have the function that is desired to  
9           keep the cheese from clumping.

10          The next material that we would like to  
11          see remain on the list in the 2018 realm is  
12          potassium hydroxide.   Buttermilk is a byproduct of  
13          the butter-making and the potassium hydroxide is  
14          used as a processing aid to adjust the pH.   The  
15          alternatives to potassium hydroxide are sodium  
16          hydroxide or calcium hydroxide.   Both are very  
17          poor choices due to the harsh effect it would have  
18          on the proteins.

19          And finally, the discussion document  
20          that was put out there on nutrient vitamins and  
21          minerals we found to be very interesting.   I had  
22          a little technical error in my written comments.

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1 So, I want to make sure I correct that. We are  
2 advocating for option No. 2.

3 I think it is interesting that you all  
4 are bringing this discussion document to the table,  
5 especially in light of the fact that there was a  
6 proposed rule put out that pretty well said it all.  
7 We sure would like to see that one come to fruition  
8 and not have this be on your plate at this time.  
9 But, to be perfectly clear, we would like the  
10 annotation to read, "vitamins and minerals  
11 identified as essential in 21 CFR 101.9 or as  
12 required for infant formula by 21 CFR 107.100 or  
13 107.10".

14 Please complete the rulemaking on the  
15 2012 proposed rule.

16 And I will let the NOSB go back to the  
17 important work that they do.

18 Thank you.

19 CHAIR FAVRE: Tom?

20 MS. UNGER: I know.

21 VICE CHAIR CHAPMAN: Do I even need to  
22 ask?

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1 MS. UNGER: Yes, we're done with it.

2 (Laughter.)

3 VICE CHAIR CHAPMAN: And have you seen  
4 any changes in product quality or consumer  
5 complaints, sales of those products?

6 MS. UNGER: I really wasn't prepared to  
7 respond to you. I will tell you that, as a  
8 consumer, one of the toughest changes that we  
9 made -- and, you know, I am no R&D person at  
10 all -- one of the tougher changes was removing it  
11 from the ultra-pasteurized heavy cream. And so  
12 now, that has been replaced with gellan gum. I  
13 find that it is not quite the same. It is still  
14 workable, but not the same.

15 VICE CHAIR CHAPMAN: And then, the  
16 application, that's for the whipping properties or  
17 is that for separation, or what? What is the --

18 MS. UNGER: Now whip-ability,  
19 actually, is the problem that I am seeing.

20 VICE CHAIR CHAPMAN: Thank you.

21 MS. UNGER: Thanks.

22 CHAIR FAVRE: Harriet?

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1 MEMBER BEHAR: Beth? Beth, come back,  
2 Beth.

3 (Laughter.)

4 CHAIR FAVRE: You are not released from  
5 here.

6 (Laughter.)

7 MS. UNGER: Yes, yes. Here I'm trying  
8 to give you time back.

9 MEMBER BEHAR: I can catch you at the  
10 Driftless Café sometimes.

11 MS. UNGER: Yes, exactly.

12 MEMBER BEHAR: Do you use sodium  
13 lactate or potassium lactate?

14 MS. UNGER: No. We used to use sodium  
15 lactate in the meat products. And so, I think that  
16 the organic meat company wouldn't mind seeing that  
17 on the list, but we're not currently using it.

18 MEMBER BEHAR: Did you support it for  
19 listing?

20 MS. UNGER: No. We were silent on that  
21 topic.

22 CHAIR FAVRE: Now you can go. Thank

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1 you.

2 Next up is Stephen Walker, followed by  
3 Lyn Coody on deck.

4 MR. WALKER: Good morning. I'm Steve  
5 Walker, Operations Manager with MOSA.

6 We now certify over 1700 organic  
7 operations across the U.S. And from 10 written  
8 comments we submitted, I want to touch on excluded  
9 methods terminology, seed purity, humility, and  
10 morality.

11 We appreciate your challenging work in  
12 trying to keep pace with biotechnology's rapid  
13 changes. The organic label is the consumer's best  
14 non-GMO guarantee.

15 The terminology proposal will help to  
16 strengthen our non-GMO message, which consumers  
17 increasingly seek. We find the definitions to be  
18 clear and useful. We appreciate the international  
19 perspective. This is a global issue.

20 We also like the principles and  
21 criteria in the proposal. They are honorable and  
22 seem like they will enable evaluation of unforeseen

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1 new biotech developments. We think the  
2 terminology chart will aid consistency and  
3 enforcement. The proposal gives a lot we can use  
4 to more clearly define our lines while still  
5 enabling a simple organic is non-GMO message.

6 We have some enforcement concerns. We  
7 occasionally use GMO test results, but  
8 interpreting these is problematic without better  
9 info on thresholds, and some excluded methods won't  
10 be reviewed by testing.

11 We also noted challenges with testing  
12 for seed purity. We simply need more data to make  
13 fair decisions that enforce consumer expectations,  
14 but don't hurt organic farmers using sound  
15 prevention strategies, but victimized by pervasive  
16 GMO frauds.

17 Testing can be a good tool with more  
18 context, but we are more accustomed to working with  
19 affidavits and such from suppliers. We would like  
20 to assist development of a robust, binding  
21 declaration form inspired by the terminology  
22 proposal to make enforcement practical.

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1           Now, on humility and morality, usually  
2 when folks ask me how it is going at MOSA, I first  
3 talk about our great staff. I love working with  
4 about 30 smart, friendly, and sensible folks who  
5 give their best to our work. We know a lot about  
6 a lot, but we're not employing folks with advanced  
7 degrees in modern biotechnology. So, we need to  
8 rely on other experts.

9           And we believe that there is a moral  
10 imperative for the companies and individuals who  
11 possess expert knowledge to be responsible and  
12 transparent. Human innovation is gift, but humans  
13 are fallible.

14           Biotech has potential for good, but its  
15 use must be respectful to all life, plant, animal,  
16 human, and planet. That is in line with the  
17 principles in the proposal which take a long and  
18 global view and include fairness. Fairness  
19 demands enabling marginalized voices to be heard.

20           We recognize our limits, but we also  
21 have wisdom to bring. Open communication and  
22 mutual humility and heart are keys.

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1                   And I'm out of time, but if you give me  
2 a lead, I would love to get some words from Pope  
3 Francis on the record.

4                   (Laughter.)

5                   (Timer rings.)

6                   CHAIR FAVRE: I'll give you that. Go  
7 ahead.

8                   MR. WALKER: All right. This is from  
9 the much-talked-about encyclical on the  
10 environment that was released last summer. It is  
11 called "On Care for Our Common Home".

12                   In discussing biotech, Pope Francis  
13 said, "Certainly, these issues require constant  
14 attention and a concern for their ethical  
15 implications. A broad, responsible scientific  
16 and social debate needs to take place, one capable  
17 of considering all the available information and  
18 of calling things by their name.

19                   "It sometimes happens that incomplete  
20 information is not put on the table and selection  
21 is made on the basis of particular interests. Be  
22 they political, economic, or ideological, this

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1 makes it difficult to reach a balanced and prudent  
2 judgment on different questions, one which takes  
3 into account all the pertinent variables.  
4 Discussions are needed in which all those directly  
5 or indirectly affected, farmers, consumers, civil  
6 authorities, scientists, seed producers, people  
7 living near fumigated fields, and others can make  
8 known their problems and concerns and have access  
9 to adequate and reliable information in order to  
10 make decisions for the common good, present and  
11 future."

12 CHAIR FAVRE: Thank you.

13 Any questions?

14 Zea?

15 MEMBER SONNABEND: Well, not exactly a  
16 question, but I really did appreciate your comments  
17 this time. I thought it is really important that  
18 we keep looking at the forest in between the trees,  
19 even though, you know, we're definitely in the  
20 trees on some of these issues. So, even the Pope  
21 seems to recognize that. So, that's good.

22 MR. WALKER: Thank you.

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1 CHAIR FAVRE: Harriet?

2 MEMBER BEHAR: I know you work with a  
3 lot of processors. Are there many processors that  
4 are using either carrageenan or sodium or potassium  
5 lactate?

6 MR. WALKER: Maybe I could have seen  
7 that one coming, huh?

8 (Laughter.)

9 I'll have to defer. I used to be one  
10 of our primary processor reviewers, and I'll plead  
11 humility on this one. I'm a little out of touch  
12 with that lately.

13 We could anecdotally give information,  
14 sort of like we did in submitting comments on the  
15 various materials up for sunset review.

16 CHAIR FAVRE: Thank you very much.

17 MR. WALKER: Thank you.

18 CHAIR FAVRE: Next up is Lyn Coody, and  
19 on deck is Kate Houston.

20 MS. COODY: Good morning. My name is  
21 Lyn Coody. I'm a Policy Analyst for the Organic  
22 Produce Wholesalers Coalition. OPWC is comprised

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1 of eight businesses that distribute fresh organic  
2 produce to customers located across the United  
3 States and internationally.

4 Many of our businesses were early  
5 participants in the organic community and have  
6 continued to play an active role in shaping the  
7 infrastructure of the organic trade.

8 We work to express our members' ideas  
9 as well as to provide a conduit to the Board for  
10 the voices of the certified growers who supply our  
11 businesses.

12 We submitted extensive written  
13 comments. So, today I would like to touch on only  
14 a few of those topics.

15 First is inerts. OPWC supports the  
16 recent activities of the Inerts Working Group to  
17 collaborate with the EPA's Safer Choice Program.  
18 While this collaboration is underway, OPWC urges  
19 continued use of the existing system for regulating  
20 inert ingredients, known as List 4.

21 We think it is vitally important to  
22 avoid the tremendous disruption of the organic

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1 trade that would occur should there be a gap between  
2 the dissolution of one system for regulating inerts  
3 and implementation of an updated system.

4 We also support the relisting of List  
5 3 inerts as a 2018 sunset material for use in  
6 passive pheromone dispensers, which are  
7 extensively used in the production of fruits and  
8 vegetables, both for monitoring insect populations  
9 as well as for controlling insects through mating  
10 disruption. In our written comments, we included  
11 some very ugly pictures of what happens when you  
12 don't passive pheromone dispensers for insect  
13 control.

14 Next, paracetic acid. We support  
15 relisting of paracetic acid for crops, both as a  
16 sanitizer disinfectant and for disease control.  
17 Our initial polling of our growers highlighted  
18 their use of paracetic acid for many different  
19 purposes. For some uses, paracetic acid was  
20 preferred as an alternative to chlorine products,  
21 and some growers pointed out its extensive need for  
22 it with regard to alternatives for fire blight

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1 control in apples and pears, a very, very difficult  
2 problem for them now that they don't use  
3 antibiotics for controlling fire blight.

4 Third, hypochlorous acid produced by  
5 electrolysis. Because use of this material has  
6 been allowed by some ACAs, OPWC members invested  
7 in the equipment to produce hypochlorous acid on  
8 site, with many advantages over other sources of  
9 chlorine. We use it for cleaning equipment and  
10 food-contact surfaces, such as sorting tables,  
11 packing lines, and tools, as well as for general  
12 facility maintenance.

13 In addition, we note that hypochlorous  
14 acid is approved as a disinfectant during the  
15 washing and peeling of raw fruits and vegetables.  
16 This use is essential for ensuring post-harvest  
17 safety for the fresh produce we handle.

18 And last, I wanted to say a few words  
19 of thanks to the Seed Purity Advisory Task Force.  
20 We hope that it will be established in the USDA,  
21 and we pledge to help from any trade-based efforts  
22 to work toward protection for genetic engineering.

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1 Thanks.

2 CHAIR FAVRE: Thank you, Lyn.

3 Tom?

4 VICE CHAIR CHAPMAN: Thank you, Lyn.

5 So, in your written comments, you're  
6 one of the few or maybe the only organization that  
7 went on the record in support of the PPM changes.  
8 Can you speak at all to that here?

9 MS. COODY: Yes. We did support the  
10 PPM changes. Well, we especially appreciate a  
11 clear path toward understanding how we are supposed  
12 to interact with the NOSB. That was our main  
13 reason for supporting it.

14 We also, as procedurally-based  
15 certified entities, understand that a clear manual  
16 is important for functioning of the Board itself.  
17 That was another important reason for doing so.

18 We recognize that the Policy Manual now  
19 does document the existing current sunset proposal  
20 or changes which were promulgated a while ago,  
21 mostly at the behest of the NOP. And we know that  
22 some folks are concerned about certain elements of

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1 that.

2 But we think it is important to know  
3 that these are the rules in place; this is the game  
4 we are playing together now. And we just  
5 appreciated the effort to try to make it clear how  
6 things would run. So, those were some of the  
7 important reasons that we did decide to speak in  
8 favor of it.

9 We did also note that we understood the  
10 reason that you did not put the redline changes in  
11 the first time, because when you change around  
12 manuals a lot, it basically shows everything in  
13 redline. So, yes, it is a little bit hard. It is  
14 difficult when you have to make major changes, but  
15 we do appreciate the effort. So, that is why we  
16 supported it.

17 VICE CHAIR CHAPMAN: Thank you.

18 CHAIR FAVRE: Thanks, Lynn.

19 MS. COODY: Uh-hum.

20 CHAIR FAVRE: I also wanted to tell you  
21 I appreciated that you guys did a good job at  
22 getting very succinct, but well-thought-out

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1        comments to us. So, I appreciate particularly the  
2        fact that you were able to get your point across  
3        in a very succinct manner.

4                    MS. COODY: Well, thank you. I  
5        appreciate it. We do work hard at it. And next  
6        time, we have even more comments from our growers  
7        as an addendum. We collect them and put them in  
8        the second round of sunset because we now we know  
9        there's two rounds of sunset.

10                   CHAIR FAVRE: Right.

11                   MS. COODY: Okay. Thanks.

12                   CHAIR FAVRE: Thank you very much.

13                   Okay. Next up is Kate Houston, with  
14        Clara Poffenberger on deck.

15                   MS. HOUSTON: Good morning, and almost  
16        good afternoon.

17                   Thank you very much for the opportunity  
18        to submit comments to the written record as well  
19        as to speak with you today.

20                   I represent Cargill. We are a food and  
21        agriculture company and a supplier of food and  
22        ingredient products to a wide range of

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1 food-manufacturing companies. Together with  
2 farmers and our customers, governments and  
3 communities, we really pride ourselves on finding  
4 new and innovative ways that we can help people  
5 thrive.

6 I am here today because Cargill is a  
7 manufacturer and a distributor of a wide range of  
8 seaweed-based products, including carrageenan.  
9 As carrageenan is extracted from seaweed, we  
10 believe it is a safe and suitable ingredient for  
11 products that are certified as Halal, Kosher,  
12 vegan, and it is often used in place of animal-based  
13 products.

14 We also believe carrageenan is a safe  
15 and suitable ingredient for use, and continued use,  
16 in organic certified products. Others have  
17 covered the safety question. So, I'm not going to  
18 spend a lot of time on my comments, but will just  
19 say that many of the challenges and interest in  
20 reformulation we believe strongly is more to do  
21 with concern about perception of the ingredient,  
22 not based on a clear evidence of safety that has

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1       been demonstrated and confirmed by a wide range of  
2       the most authoritative food safety experts  
3       globally, including most recently, since your last  
4       review of carrageenan, the confirmation by JECFA  
5       in 2015.

6               The production of seaweed that is used  
7       to make carrageenan is also sustainable. It  
8       supports family farmers and it benefits marine  
9       environments.

10              Extraction from dried seaweed is  
11       something you could actually replicate at home.  
12       It is minimal processing. It has been done for  
13       hundreds of years, if not longer.

14              We believe that carrageenan production  
15       is consistent with organic principles, as well as  
16       Cargill's commitment to feeding the world in a  
17       responsible way, reducing environmental impact,  
18       and in improving the communities and citizens where  
19       we live and work.

20              I want to just mention briefly a bit  
21       about the farmer story behind carrageenan because  
22       I think it is important context for the decision.

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1 We work with small farmers and family farmers who  
2 we depend on and have direct relationships and  
3 personal relationships in harvesting the seaweed  
4 for production of carrageenan. We know that the  
5 market for this product is a part of the livelihood.

6 (Timer rings.)

7 We hope that you think about the  
8 decision to remove and the impact that it can have  
9 on those farmers and their livelihoods. We --

10 CHAIR FAVRE: Thank you. I'm sorry,  
11 we are going to have to stop you there. Your time  
12 has gone off and we're running behind schedule.

13 MS. HOUSTON: Okay. That's fine.

14 CHAIR FAVRE: My apologies.

15 MS. HOUSTON: So, thank you very much  
16 for the opportunity, and we are happy to answer any  
17 questions here or in writing.

18 CHAIR FAVRE: Okay. Tom, you had a  
19 question?

20 VICE CHAIR CHAPMAN: So, you spoke to  
21 how simple the carrageenan manufacturing process  
22 is; it could be done in a kitchen. It sounds like

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1 it is a process itself that would be allowable under  
2 organic certification. So, then, the question  
3 goes to the raw material.

4 There are several organic seaweeds,  
5 dozens certified to the National Organic Program  
6 already. So, why is there not organic carrageenan  
7 in the marketplace?

8 MS. HOUSTON: Well, as of this point,  
9 we have had the opportunity to be on the list.  
10 There was a decision made by this body in the past  
11 looking at the full range of evidence, that the  
12 production under current practices was appropriate  
13 for use on this list. And the market has continued  
14 to rely on those sources in use of  
15 organically-certified products. So, that has  
16 been deemed to be acceptable as part of the  
17 standards put forward by the Department.

18 VICE CHAIR CHAPMAN: So, Cargill  
19 hasn't or your suppliers haven't made any effort  
20 to get certified organic?

21 MS. HOUSTON: I'm not aware that there  
22 has been a demand or an ask for that. I can go back

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1 to our business and ask them that question  
2 directly. I would be happy to follow up with you,  
3 if you are interested in finding out.

4 VICE CHAIR CHAPMAN: That would be  
5 great. Thank you.

6 MS. HOUSTON: Yes. Sure.

7 VICE CHAIR CHAPMAN: Yes.

8 CHAIR FAVRE: Others?

9 (No response.)

10 Thank you very much.

11 MS. HOUSTON: Thank you.

12 CHAIR FAVRE: Okay, folks, we are going  
13 to make a little bit of an audible here, call an  
14 audible. Because we are running so late, we are  
15 going to have two more presenters and, then, we are  
16 going to take a break for lunch.

17 So, our next presenter is Clara  
18 Poffenberger and, then, we will have Johanna  
19 Mirenda on deck.

20 MS. POFFENBERGER: Good afternoon.  
21 I'm a member of New Family Farm in Boyce, Virginia.

22 My daughter is actually the farmer and

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1 is working towards biodynamic certification. She  
2 has done all the homework or has begun to do all  
3 the homework that it takes to be a full working  
4 organic farm. She has attended a number of  
5 workshops and has educated me.

6 I have been a practicing environmental  
7 attorney for 26 years and, of course, in that have  
8 explored and done plenty of research on  
9 agricultural environmental issues. But, for over  
10 29 years, I have been a mom and have read nutrition  
11 labels, studied nutrition information, and sought  
12 really zealously to provide healthy foods to my  
13 children.

14 And this summer I will become a  
15 grandmother, and my daughter will have the same  
16 task, and I will be continuing to help her as she  
17 tries to decide what is the best way to raise her  
18 children, luckily, on an organic farm, but she will  
19 still be purchasing in the market.

20 In the process of being a mom and making  
21 decisions about food, I have begun to rely on the  
22 organic label. And now, as a farm owner, I have

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1 become concerned about the integrity of the organic  
2 label, especially as I try to explain to people what  
3 the organic label means and what other labels mean.

4 So, I am here simply today to urge you  
5 to continue to protect the integrity of the organic  
6 label. It is really difficult for young families  
7 and growing families and people in general, the  
8 layperson without all the knowledge in this room,  
9 to actually make decisions about food based on  
10 internet information.

11 The organic label is something that we  
12 need to trust. So, to make my comments really  
13 short, I urge this Board to follow the  
14 recommendations submitted by the Cornucopia  
15 Institute and the other small organic farmers. I  
16 particularly urge the Board to provide support as  
17 it continues to deliberate and make decisions for  
18 sustainable farmers, biodynamic farmers, and  
19 permaculture, as I understand that permaculture is  
20 the way that we will feed the future with healthy  
21 foods that are also environmentally-protective  
22 farms.

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1                   Specifically, I understand that the  
2 Policy and Procedures Manual changes that you  
3 proposed would actually not continue that goal.  
4 So, I urge you to table those changes until changes  
5 to the manual can be made with full public  
6 participation and involvement of the organic  
7 industry.

8                   I ask that you maintain transparency of  
9 this Board, as I will now be paying a lot more  
10 attention to your activities, as I think the  
11 organic industry doesn't need any secrecy or any  
12 behind-closed-door decisions.

13                   Thank you.

14                   CHAIR FAVRE: Questions?

15                   Tom?

16                   VICE CHAIR CHAPMAN: Can you highlight  
17 areas of the proposed PPM changes that you are  
18 concerned about in regards to the transparency or  
19 our operations?

20                   MS. POFFENBERGER: Well, there's a  
21 number of them that Cornucopia Institute lists. I  
22 understand that the manual -- again, I don't have

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1 the whole list in front of me, but I have read them  
2 a couple of times -- that there is a Director that  
3 will no longer be involved or no longer be on the  
4 Board. I don't remember all the details. Again,  
5 the Cornucopia Institute has listed those out.

6 VICE CHAIR CHAPMAN: The Staff  
7 Director position, that is the one you are  
8 concerned about?

9 MS. POFFENBERGER: Actually, they list  
10 a number of different changes that the manual  
11 includes, and I don't remember them all. I don't  
12 have it in front of me.

13 VICE CHAIR CHAPMAN: Okay. Thank you.

14 MS. POFFENBERGER: Thanks. Sorry.

15 CHAIR FAVRE: Thank you.

16 Next up is Johanna Mirenda, and then,  
17 we'll have lunch after that.

18 MS. MIRENDA: Okay. Hi, everyone.  
19 My name is Johanna Mirenda. I'm the Technical  
20 Director of OMRI, the Organic Materials Review  
21 Institute.

22 I am using my time today to make a very

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1       brief comment on the importance of the National  
2       Organic Program to issue final guidance on the  
3       classification of materials.

4               The review of materials is a  
5       foundational aspect of the organic certification  
6       process. Nearly every operation across all scopes  
7       uses input materials in one form or another.  
8       Material review is performed on a daily basis by  
9       certifiers and material review organizations.  
10      The compliance of an operation can depend entirely  
11      on the review decision of a single input material.

12             With so many materials and so many  
13      organizations making material review decisions,  
14      and the significance of a review decision in terms  
15      of compliance, it is critical that clear guidance  
16      is in place for reviewers to make consistent and  
17      accurate material review decisions.

18             The process of reviewing a material  
19      starts with the classification of the material as  
20      synthetic or nonsynthetic. This deceptively  
21      straightforward decision can be highly scientific  
22      and nuanced. Who can forget the sage of corn steep

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1 liquor in 2010?

2 (Laughter.)

3 For some materials, the science and  
4 nuance is publicly discussed in conjunction with  
5 a technical report on the material, and a final and  
6 informed recommendation is made by the NOSB. But  
7 the reality is that most individual substances used  
8 in organic crop and livestock input materials have  
9 not been reviewed by the Board.

10 Due to the structure of the NOP  
11 regulations and the National List for crops and  
12 livestock production, only allowed synthetics and  
13 prohibited nonsynthetics need to undergo NOSB  
14 review and appear in the NOP regulations. This  
15 means that the countless number of allowed  
16 nonsynthetic substances that are permitted for use  
17 in organic crop and livestock production are not  
18 petitioned to the NOP or reviewed by the NOSB.

19 These allowed nonsynthetics are  
20 approved based only on a classification decision  
21 made by a certifier or a material review  
22 organization. Reviewers are responsible for

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1 making these classification decisions in order to  
2 carry out routine material review as part of the  
3 certification process.

4 In the absence of final comprehensive  
5 NOP guidance, the industry relies on limited  
6 regulatory definitions, piecemeal precedents set  
7 at NOSB meetings, or in NOP Policy Memos, and a  
8 series of draft NOP guidances published in 2013.  
9 Final versions of these guidances and the Program  
10 Handbook are needed in order to make material  
11 classification policies consistently applied and  
12 enforced.

13 We urge the NOP to move forward in  
14 publishing these final guidances and integrate the  
15 public comments provided on the 2013 drafts. Your  
16 efforts will result in a valuable resource that  
17 will empower certifiers and material review  
18 organizations to make consistent and accurate  
19 material review decisions in alignment with NOP  
20 expectations.

21 And from the NOP's report yesterday, it  
22 sounds like we might see these guidances this

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1 summer. So, we really look forward to that, and  
2 we thank you for your work on this issue and for  
3 considering our comments.

4 CHAIR FAVRE: Thank you.

5 Questions?

6 (No response.)

7 Thank you very much.

8 MS. MIRENDA: Thanks.

9 CHAIR FAVRE: Okay, folks, we have  
10 blown our perfect score from yesterday with the  
11 schedule. So, like I said, we are going to have  
12 to change out the agenda a little bit. We do have  
13 an expert panel that is scheduled on the agenda to  
14 speaking starting at 1:15. We are going to push  
15 that back a little bit.

16 But, in order to accommodate the public  
17 comments, we are going to shorten our lunch a little  
18 bit. I know this is going to mess with everybody's  
19 head. But I would like everybody back here at one  
20 o'clock.

21 We are going to try to accommodate the  
22 public comment schedule, and then, we will start

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1 the technical panel after that.

2 So, everybody back here at one o'clock,  
3 please.

4 Thank you.

5 (Whereupon, the foregoing matter went off the record for lunch at 12:19  
6 p.m. and went back on the record at 1:05 p.m.)

7 CHAIR FAVRE: Board Members, if you are  
8 here, please take your seats.

9 Okay, folks, we are going to start back  
10 with our public comments. In the interest of  
11 trying to get back on schedule as much as possible,  
12 I ask our Board members to keep your questions  
13 brief.

14 Okay. Please go ahead.

15 MR. SASTRA: Good afternoon, everyone.  
16 My name is Agus Sastra. I am from Bali, Indonesia.

17 I grew up on a seaweed farm in  
18 Indonesia. In 1979, my father, working with FMC,  
19 to start the seaweed farm in Indonesia. I came  
20 here today to represent over 25,000 seawood farming  
21 families in Indonesia.

22 Before seaweed farming happened in

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1 Indonesia, it was a difficult life. People did  
2 dynamite fishing. They broke the coral,  
3 destroying fish habitat, living it in bad  
4 condition, bad sanitary, no electricity. The  
5 children cannot go to school because their families  
6 have no money, no future for them.

7 But everything changing after seaweed  
8 happened in Indonesia. They farm seaweed. They  
9 have money. They leave the dynamite fishing. The  
10 coral is growing back. The fish come to the beach.  
11 Their children now can go to school. Some of the  
12 children now become a police, nurse, work at their  
13 governments, become seaweed traders. Economics  
14 are growing. Now they have a house with clean  
15 sanitary and electricity. Seaweed also became a  
16 tourist attraction.

17 I also want to tell you how does the  
18 seaweed family work. The important things, we do  
19 not use chemical fertilizer to grow seaweed.

20 The first step, seed selecting. We are  
21 trying to the line, and we are planting on the sea.  
22 After six weeks, we harvest, and half the seaweed

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1 we take to the new seedling and we plant another  
2 one. After three days drying, the farmer can sell  
3 it.

4 In the end, we hope the NOSB will  
5 understand how many tens of thousands jobs and  
6 lives depend on the seaweed market and carrageenan.

7 Thank you for hearing my story, and  
8 please continue to allow the use of carrageenan in  
9 organic food.

10 CHAIR FAVRE: Thank you very much.  
11 Thank you for bringing your perspective and your  
12 comments to us.

13 Any questions for him?

14 Scott?

15 MEMBER RICE: Terima kasih (speaking  
16 Indonesian) for coming so far.

17 MR. SASRA: Okay. Sama-sama  
18 (speaking Indonesian).

19 CHAIR FAVRE: Thank you very much.

20 MR. SASRA: Thank you. Thank you.

21 CHAIR FAVRE: Next is up Erick Ask,  
22 with Bill Blakemore on deck.

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1 MR. ASK: Yes, my name is Erick Ask.  
2 I'm FMC's Corporation Seaweed Development Manager.

3 I first worked with seaweed farming as  
4 a Peace Corps volunteer in the Philippines in the  
5 1980s, introducing sustainable alternative  
6 livelihoods to counter destructive fishing and  
7 overfishing.

8 As we talk about seaweed farming today,  
9 it is important to keep in mind how and where the  
10 carrageenan industry first began. It started in  
11 Scituate, Massachusetts in the 1840s, based on the  
12 collection of *Chondrus crispus* seaweed. By the  
13 1930s, processing took place in New Bedford,  
14 Massachusetts and, later, Rockland, Maine, with  
15 those companies combining in the 1950s, forming  
16 Marine Colloids.

17 As demand for carrageenan grew, Marine  
18 Colloids developed other carrageenan seaweed  
19 sources in North and South America, Africa, and  
20 Asia. In addition, they invented cultivation of  
21 the tropical carrageenan seaweeds with the  
22 University of Hawaii and the Philippine Government

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1 in the 1960s. FMC purchased Marine Colloids in the  
2 mid-seventies and continued the effort to assure  
3 sustainable carrageenan seaweed supplies.

4 When carrageenan seaweed farming was  
5 invested, best practices were developed to ensure  
6 optimal productivity and sustainability of the  
7 seaweed as well as the health and safety of the  
8 farmers. That continues to this day.

9 For example, FMC is now working with the  
10 New England Aquarium's Sustainable Seafood Program  
11 in Boston to promote best practices for sustainable  
12 seaweed farming and ocean harvesting.

13 The Marine Stewardship Council and the  
14 Aquaculture Stewardship Council are working  
15 together to develop sustainable seaweed  
16 certification standards. They have created a  
17 Sustainable Seaweed Standards Committee, and I am  
18 one of eight Committee members. FMC is also  
19 working with the Marine Stewardship Council on  
20 pilot testing of these standards.

21 It is important to note that seaweed  
22 farms provide valuable environmental services.

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1 First, they are nutrient sinks, important today  
2 given the nutrient loading from ag and urban  
3 runoff. Second, they are habitats providing  
4 structure for fish and invertebrates where there  
5 wasn't any, similar to artificial reefs. And  
6 third, they are primary production for herbivores.  
7 All this enhances the coastal marine ecosystem.

8 Farms also promote a stewardship  
9 mentality in the coastal communities. Just like  
10 organic farmers in this room rely on healthy soil,  
11 seaweed farmers rely on healthy seas.

12 Today there are more than 33,000  
13 seaweed farming families around the world. Their  
14 number may not seem enormous, but the global impact  
15 is real, not only to their lives and their  
16 communities, but also on our oceans, our food  
17 supply, and the health of our planet.

18 Thank you very much for this  
19 opportunity to comment. I urge you to consider the  
20 global impact of your decision and, therefore, to  
21 vote in favor of the continued inclusion of  
22 carrageenan on the National List.

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1 Thank you.

2 (Timer rings.)

3 CHAIR FAVRE: Afternoon prize for best  
4 ending.

5 (Laughter.)

6 Questions?

7 Dan?

8 MEMBER SEITZ: Does marine pollution  
9 enter into seaweed in any way and, if so, what  
10 happens through the processing cycle?

11 MR. ASK: Okay. So, when we say  
12 seaweed, you know, there's 25,000 species.  
13 There's only about 50 that are commercial.

14 And the other aspect to your question  
15 would be pollution. If you farm -- farm? -- any  
16 water near an industrial area will have issues.  
17 So, these farms are not near industrial areas,  
18 right? They are out in eastern Indonesia,  
19 pristine areas.

20 Now, biologically, algae I recall are  
21 able to pick up various things in the water. You  
22 know, you call it pollution.

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1 MEMBER SEITZ: Uh-hum.

2 MR. ASK: When it comes to nutrients,  
3 they can only pick up nitrate, nitrite, ammonia,  
4 phosphorous in the form of phosphate. So, we can  
5 say that.

6 Then, at the factory when we are  
7 extracting, we extract the carrageenan. All  
8 right? So, you have said, what's in it and what's  
9 coming out of it, I guess?

10 MEMBER SEITZ: Yes. I mean, I would  
11 imagine if there were pollutants in the water,  
12 ambient, that there could possibly be an uptake and  
13 possibly be transmitted.

14 MR. ASK: Yes. Right.

15 MEMBER SEITZ: I know I am asking that  
16 without any strong background in this area.

17 MR. ASK: Right. Yes.

18 MEMBER SEITZ: I am just trying to  
19 understand.

20 MR. ASK: Okay.

21 CHAIR FAVRE: Francis?

22 MEMBER THICKE: Of all the hemp that

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1 has been grown, what percentage is used to make  
2 carrageenan?

3 MR. ASK: So, what you are saying is,  
4 what percentage of all the carrageenan seaweed  
5 consumed is --

6 MEMBER THICKE: Is that all this  
7 hemp -- I'm sorry, did I say "hemp"? I was talking  
8 about hemp earlier.

9 Of all of this seaweed, what percent is  
10 used to make carrageenan? Is it all used to make  
11 carrageenan?

12 MR. ASK: Okay. Do you mean all farmed  
13 seaweed in the world or are you talking about all  
14 seaweed --

15 MEMBER THICKE: That you're talking  
16 about, that you mentioned on your slides about. Is  
17 it 13,000 farms or --

18 MR. ASK: Yes, 33,000.

19 MEMBER THICKE: Thirty-three  
20 thousand.

21 MR. ASK: Over 33,000 farming farm  
22 families --

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1 MEMBER THICKE: Yes.

2 MR. ASK: -- of carrageenan seaweed.

3 MEMBER THICKE: Of carrageenan?

4 MR. ASK: So, that is 100 percent would  
5 be the answer to your question.

6 MEMBER THICKE: Thank you.

7 CHAIR FAVRE: Thank you very much.

8 MR. ASK: Okay.

9 CHAIR FAVRE: You missed my speech  
10 about keeping our questions brief. So, I will let  
11 you slide on this one.

12 (Laughter.)

13 Go ahead. We'll catch you the next  
14 time. It's all right.

15 Thank you.

16 Sorry, we didn't mean to make it  
17 distracting.

18 Next up is Bill Blakemore, with Jackie  
19 DeMinter on deck.

20 MR. BLAKEMORE: Yes, my name is Bill  
21 Blakemore. I'm the President of Celtic Colloids,  
22 Inc., an independent hydrocolloid technology

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1 consultant. I have been a carrageenan chemist for  
2 more than 50 years.

3 I'm supporting the listing of  
4 carrageenan as a nonsynthetic, continued. No new  
5 molecular structures are created when carrageenan  
6 is extracted in alkaline. When it is extracted in  
7 alkaline to preserve the quality, the molecular  
8 weight, there's not structural components that are  
9 eliminated. There's no changes in molecular  
10 weight. There are minor changes in the ratio of  
11 the components, as I will show you on the next  
12 slide.

13 If you look at the top one there, it is  
14 commercial kappa carrageenan. It is a copolymer  
15 of ideal kappa carrageenan and ideal new  
16 carrageenan. Those are the two structures that  
17 you will see to the left of that.

18 Then, on a ratio of somewhere between  
19 75 and 25 and 95 to 5, depending on the plant enzyme  
20 activity or alkaline extraction, so the alkaline  
21 extraction does the same as the plant does with its  
22 enzymes.

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1 Carrageenan does not contain  
2 poligeenan. Here is a molecular weight profile of  
3 carrageenan, which is the brown bell-shaped curve.  
4 If you look at the left end of that curve, you will  
5 see molecules at 30,000 daltons. And if you look  
6 at the righthand end, you'll see molecules up at  
7 4 million. That is a definition of  
8 polydispersity. That is what the plant is  
9 growing. You are going to have all these molecules  
10 present as carrageenan.

11 If you look at the 50,000-dalton line,  
12 you will see that little triangle to the left of  
13 it under the curve, that is your low molecular  
14 weight tail, your percent below 50,000 daltons, and  
15 it is expressed as that area over the total area.

16 If you look further to the left, I have  
17 put in there where poligeenan is. It is 10 to 20  
18 thousand daltons. A typical poligeenan will have  
19 95 percent of the molecules less than 20,000  
20 daltons and 50 percent below 10,000 daltons. So,  
21 there is no poligeenan in carrageenan. And note  
22 that the LMT is not poligeenan; it is carrageenan.

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1 (Timer rings.)

2 What? That can't be.

3 CHAIR FAVRE: Those three minutes go  
4 really fast, don't they?

5 Any questions?

6 MEMBER BEHAR: Do you know how many  
7 tons -- or I'm sure many, many, many tons -- of  
8 carrageenan are harvested worldwide?

9 MR. BLAKEMORE: It's tons of seaweed.

10 MEMBER BEHAR: For seaweed.

11 MR. BLAKEMORE: Not off the top of my  
12 head. That would have been a good question for the  
13 last speaker.

14 CHAIR FAVRE: Let me ask you, on that  
15 previous slide with the bell curve, you are saying  
16 that even when carrageenan degrades, it never  
17 degrades into the zone where it would be considered  
18 poligeenan? Is that what you are saying?

19 MR. BLAKEMORE: It doesn't degrade in  
20 the gastrointestinal tract. It can't. I mean,  
21 poligeenan is made by when you take carrageenan and  
22 boil it up in acid for six hours. You're not going

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1 to find those conditions in the body. So, it is  
2 not going to degrade in the gut.

3 And most of its use, it is complex with  
4 protein at very low concentrations. Now, when  
5 that protein hits the acid environment in the  
6 stomach, it precipitates. It is below the  
7 isoelectric point of the protein. So, it proceeds  
8 until it is well down the gut. And when it is in  
9 there in the alkaline gut, it is perfectly stable.

10 Also, it is not going to interfere with  
11 protein digestion because you've got a few hundred  
12 parts per million of carrageenan and 3, 4, 5, or  
13 6 percent protein. That is not going to interfere  
14 with the digestion of the protein.

15 And there are papers -- and you will see  
16 I have referenced that in my letter to you -- that  
17 show that carrageenan is excreted intact.

18 CHAIR FAVRE: Okay. Thank you very  
19 much.

20 Any other questions?

21 Jean?

22 MEMBER RICHARDSON: Have you submitted

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1 all of the PowerPoint that you have today? Has  
2 that been submitted as written comment?

3 MR. BLAKEMORE: Yes, you have it.  
4 You have it right here.

5 MEMBER RICHARDSON: Okay. Good.

6 MR. BLAKEMORE: And I have covered most  
7 of it in my letter as well.

8 MEMBER RICHARDSON: Yes, that's what I  
9 thought.

10 Thank you.

11 CHAIR FAVRE: Thank you very much for  
12 your comments.

13 MR. BLAKEMORE: Thanks.

14 CHAIR FAVRE: Next up is Jackie  
15 DeMinter, with Nina Mahmoudpour on deck.

16 MS. DeMINTER: Hello. My name is  
17 Jackie DeMinter. I'm the Certification Policy  
18 Manager at MOSA.

19 We currently certify approximately  
20 1700 clients. We also have extensive experience  
21 with reviewing inputs and maintain an internal  
22 materials review database which includes almost

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1 6,000 brand-name products and generic materials.

2 We submitted nine letters and one  
3 informational chart addressing several topics. I  
4 will summarize some of our comment here.

5 EPA lists four inerts. Last fall we  
6 supported the annotation change for inerts which  
7 gave references to updated modernized lists. It  
8 is clear that the NOSB has agreed there needs to  
9 be a phaseout of MPE use in organic pesticide  
10 formulations. MPEs are not included on the  
11 proposed list. Thus, the direction here feels  
12 unnecessary if that proposal is acted upon.

13 To enable a less-burdensome transition  
14 to the new list, it seems transparent to compare  
15 advertise and educate. We don't have an opinion  
16 on how long it would take the pesticide industry  
17 to reformulate or how difficult that may be. But  
18 we do know that the conversation is being heard,  
19 and we know that it is being heard in the livestock  
20 healthcare industry, too, even though excipients  
21 are not under current discussion. We have already  
22 been contacted by a few manufacturers regarding

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1 replacement ingredients in their iodine products.

2 Parasitocides. Regarding fiber, we  
3 thought that the NOSB Subcommittee proposal was  
4 clear, but it became apparent during the webinar  
5 comments that there is some question regarding when  
6 the production of organic fiber happens. Is it  
7 when the fiber is harvested or when it begins to  
8 grow?

9 It was also apparent that there are  
10 significantly varying views on this topic. Most  
11 of those comments on the proposed origin of  
12 livestock rules suggested a transition allowance  
13 for fiber-producing animals and acknowledged that  
14 the fleece or wool is the product of management,  
15 such as the use of external parasitocides and feed  
16 consumed since the last shearing. We appreciate  
17 the inclusion of fiber-bearing animals in your  
18 considerations and just ask that you state your  
19 intentions clearly.

20 Ancillary substances. We appreciate  
21 the ongoing consideration of ancillaries and find  
22 that our previous concerns have been addressed.

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1 We still do have some concern regarding the  
2 practicality of requiring more compliance  
3 verification.

4 In closing, we appreciate that the NOSB  
5 has taken up discussion of the annual onsite  
6 peer-evaluation component of personnel  
7 performance evaluations. We did submit written  
8 comments and can provide additional information,  
9 if needed. Our Director, Cori Skolaski, is  
10 available to answer any questions you may have on  
11 this topic.

12 We also want to thank the NOP for the  
13 new Livestock and Poultry Practices Proposed Rule.  
14 We certify over 800 clients with livestock. So,  
15 we are quickly gathering client information and  
16 data. We are looking forward to providing robust  
17 comments for consideration and would welcome an  
18 extension of the comment period.

19 Thank you all. We appreciate all of  
20 your hard work on all of these very important  
21 topics.

22 (Timer rings.)

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1 CHAIR FAVRE: Yes, good job.

2 Questions?

3 MEMBER RICHARDSON: Could I ask you a  
4 question? I was a bit confused by your comments  
5 on the webinar. There were some issues raised  
6 about the wool parasiticide use. I'm not sure  
7 exactly what the issues are, since there's no  
8 evidence that there's any parasiticides left in  
9 wool. Do you have some sort of proposed different  
10 language or have you submitted any proposed  
11 different language to help us in our deliberations?

12 MS. DeMINTER: We did not consider that  
13 it was unclear when the production of fiber was.  
14 And it seems like a couple of people on the webinar  
15 commented, is that when the wool or fiber begins  
16 to grown? Is that when the production starts? Or  
17 is it when it is actually sheared off of the animal?  
18 Is that the production?

19 MEMBER RICHARDSON: Do you have a  
20 recommendation?

21 MS. DeMINTER: Do I have a  
22 recommendation? I would just maybe suggest that,

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1 if you mean when it is to be sheared off, that you  
2 state that in your proposal --

3 MEMBER RICHARDSON: Okay.

4 MS. DeMINTER: -- just to be real clear  
5 what that word means. When is the production? As  
6 a certifier, we just want to enforce the rule that  
7 is put forth and be able to enforce it without any  
8 question or confusion in our community. So, just  
9 clarifying.

10 MEMBER RICHARDSON: Thank you.

11 CHAIR FAVRE: Thank you very much.

12 Next up is Nina Mahmoudpour, followed  
13 by Alexis Randolph on deck.

14 MS. MAHMOUDPOUR: Hello. Thank you  
15 for having me. My name is Nina Mahmoudpour. I am  
16 a first-year law student at Georgetown and have  
17 been passionate about organics and a member of the  
18 Cornucopia Institute for the last five years.

19 I care about preserving the integrity  
20 of organic food and disagree with the idea of  
21 companies making profits off the organic label  
22 without fully adhering to both the spirit and

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1 letter of the law of the Organic Food Productions  
2 Act. This hurts organic farmers who do adhere to  
3 the law.

4 I am also passionate about access to  
5 organic foods in lower socioeconomic  
6 neighborhoods. While obtaining my undergraduate  
7 degree in Richmond, Virginia, I was involved with  
8 quality food access and elimination of food deserts  
9 in my area. At Georgetown, I am part of the  
10 Georgetown Food Co-op, which is set to take off this  
11 summer.

12 Public participation has always been  
13 the hallmark of the NOSB process and contributes  
14 to the label's integrity. I'm told that when  
15 Cornucopia representatives like myself first  
16 started attending meetings, each citizen could  
17 have up to five minutes with an additional  
18 five-minute proxy. Now expert staff might travel  
19 across the country for just three minutes to  
20 express all of their constituents' views.

21 Additionally, to increase public  
22 involvement, the NOP should get the agenda out

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1 earlier, much earlier. The compressed time  
2 schedule was made even worse at this meeting  
3 because the official materials were posted a week  
4 later than usual, making it challenging for  
5 multiple Cornucopia staff members to review all of  
6 the public comments before this meeting. How  
7 could a volunteer NOSB member, then, possibly  
8 review and analyze all of the public comments?

9 Also, the NOSB asked, and the NOP  
10 committed to, creating an open docket so that  
11 materials could be shared throughout the year,  
12 lessening the strain prior to each meeting. The  
13 NOP should create the open docket they committed  
14 to.

15 Finally, we particularly object to  
16 information the NOP is currently concealing.  
17 Making NOSB applications public would allow the  
18 community to help the Secretary pick the best and  
19 brightest, and it might have prevented the kind of  
20 lawsuit that is pending now, challenging legally  
21 unqualified Board members.

22 Through the Freedom of Information Act,

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1 the Cornucopia Institute has had to sue the USDA  
2 to secure the identities of scientists who are  
3 writing technical reviews.

4 Another Cornucopia lawsuit is now  
5 resulting in the release of enforcement data. Why  
6 are lawsuits necessary? This information belongs  
7 to the public. According to the Federal Advisory  
8 Committee Act, all NOSB deliberative documents  
9 should be available.

10 I thank you for volunteering your time  
11 to make the USDA organic label better and listening  
12 to my comments. Thank you.

13 CHAIR FAVRE: Thank you very much.

14 Next up is Alexis Randolph, with Lauren  
15 Berlekamp on deck.

16 MS. RANDOLPH: Hi. Good afternoon.  
17 My name is Alexis Randolph, and I'm from Quality  
18 Assurance International. I have worked as a  
19 certifier for 18 years.

20 We certify over 1600 operators in the  
21 U.S., Mexico, Taiwan, Japan, and Canada, and are  
22 one of the leading providers of certification for

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1 retail products.

2 First, I would like to address the 2018  
3 sunset materials for handling. I have prepared a  
4 list of materials, number of operators using each  
5 substance, and organic products produced, which I  
6 am turning in today with my public comments. Keep  
7 in mind that each operator represents dozens of  
8 currently-certified products in compliance with  
9 the NOP.

10 Please read our full comments because  
11 I am addressing just a few materials orally today.

12 Agar-agar. Six QAI-certified  
13 operators are using this material in yogurt, gummy  
14 candies, mints, and confections.

15 Regarding the question of essentiality  
16 compared to other gums, QAI cannot speak to the  
17 technical essentiality. So, we refer to our past  
18 comments regarding tragacanth gum. Operators  
19 have expressed the need for a variety of similar  
20 ingredients to make their product formulas unique  
21 and competitive in the marketplace.

22 Silicon dioxide. Five operators are

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1 using organic rice hulls. Forty are using silicon  
2 dioxide as a defoamer and as a processing aid for  
3 products, including spices, tablets, and sake.

4 Because silicon dioxide is on the  
5 National List, a commonly-used defoamer is now  
6 certified organic using organic oils and other  
7 allowed ingredients. QAI saw operators change to  
8 organic rice hulls when those commercial  
9 availability requirements were implemented.  
10 However, when their product was further added as  
11 an ingredient into another product, the finished  
12 product quality was severely impacted. Operators  
13 switched back to silicon dioxide.

14 Cellulose. There is a suggestion for  
15 including the word "powdered" in the annotation.  
16 However, cellulose casing specification sheets  
17 indicate it is made from powder and pulp.

18 Regarding your question about whether  
19 ancillary substances listed in the TR are used in  
20 cellulose, yes, they are.

21 Tartaric acid is used in organic  
22 flavors, beverages, baked goods, and sweeteners.

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1 It is often used for making organic invert sugar,  
2 a widely-used organic sweetener.

3           Regarding the seed purity discussion  
4 paper, we support the intention of the Board, and  
5 my colleague already commented on this topic. I  
6 would just like to add that QAI agrees with the OTA  
7 comments that the NOP guidance on seed requirements  
8 could go further to push organic operators to  
9 overcome barriers for using organic seed when  
10 available. QAI would like to see organic farmers  
11 be required to conduct seed trials with organic  
12 seed when quality or agronomic conditions are one  
13 of the barriers.

14           Lastly, I would like to show support for  
15 a future endeavor of revising the regulation  
16 regarding excluded operations. We feel it is  
17 imperative to require all importers, brokers, and  
18 distributors of product to be certified in order  
19 to reduce the risk of fraud.

20           I'm happy to answer any questions.  
21 Thank you.

22           (Timer rings.)

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1 CHAIR FAVRE: You guys are doing a  
2 great job.

3 Zea?

4 MEMBER SONNABEND: Thank you, Alexis.

5 Our favorite subject here. You list  
6 carrageenan uses as "spices in gel format (liquid  
7 rub)". Could you just explain what that is,  
8 because that is a use we haven't had submitted  
9 before?

10 MS. RANDOLPH: Yes. So, I can only  
11 best equate it to perhaps a rub you would use on  
12 a product that you had to barbeque, like chicken  
13 or beef.

14 MEMBER SONNABEND: And someone puts  
15 like garlic or oregano on that and --

16 MS. RANDOLPH: Like garlic and  
17 oregano.

18 MEMBER SONNABEND: -- to hold it in  
19 suspension, that is what the carrageenan is used  
20 for?

21 MS. RANDOLPH: Yes, apparently, that  
22 is the use of carrageenan. It is predominantly

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1 organic spices, and carrageenan somehow serves a  
2 purpose in this gel format.

3 MEMBER SONNABEND: Okay. Thank you.

4 CHAIR FAVRE: Thank you very much.

5 MS. RANDOLPH: Thank you.

6 CHAIR FAVRE: Next up is Lauren  
7 Berlekamp, followed by David Will on deck.

8 MS. BERLEKAMP: Thank you for the  
9 opportunity. I'm Lauren Berlekamp, here to speak  
10 on behalf of the Hemp Industries Association.

11 Industrial hemp is an agricultural  
12 commodity that is cultivated for use in the  
13 production of a wide range of products, including  
14 foods and beverages, cosmetics and personal care  
15 products, and nutritional supplements, as well as  
16 fabrics, textiles, paper, construction,  
17 insulation materials, and other manufactured  
18 goods. Hemp can be grown as fiber, seed, and other  
19 dual-purpose crops.

20 Congress added Section 7606 to the 2014  
21 farm bill which defines industrial hemp as distinct  
22 from marijuana and authorizes legal hemp research

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1 in pilot programs by universities and state  
2 departments of agriculture.

3 In 2015, states, including Colorado,  
4 Kentucky, Oregon, and Tennessee, authorized hemp  
5 pilot programs conducted by farmers, and more than  
6 3900 acres of hemp were harvested.

7 The USDA has been certifying hemp  
8 organic from Canada, Europe, and China under the  
9 National Organic Program for more than 15 years.  
10 Hemp and seed fiber is 100 percent legal to import  
11 and sell in the U.S., and legal USDA-certified  
12 organic hemp foods and supplements are sold by  
13 thousands of U.S. retailers.

14 Hemp is the fastest-growing consumer  
15 category in the natural products industry, and the  
16 demand is overwhelmingly for organic. Seven USDA  
17 organic certifications had already been issued for  
18 legal domestically-produced hemp. However, on  
19 February 16th, 2016, the USDA released an  
20 instruction to the NOP certifiers to stop issuing  
21 certifications for industrial hemp crops in the  
22 U.S. based on its yet undetermined legal status.

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1           As these pilot programs are conducting  
2           research on the economic viability of  
3           domestically-produced hemp, U.S. farmers should  
4           not be discriminated against by the NOP's own  
5           standards, and they ought to be able to distinguish  
6           their value-added hemp products as organic in order  
7           to gain consumer confidence to demonstrate that  
8           viability and to be competitive with imported  
9           USDA-organic-certified hemp products.

10           The legality of hemp pilot programs is  
11           clear under Section 7606. The legality of hemp  
12           seed and fiber is clear under 21 USC 802.16, and  
13           it is a fact that the USDA currently allows  
14           certification of hemp through the NOP, and has for  
15           at least 15 years.

16           Thus, the Hemp Industries Association  
17           respectfully requests on behalf of its 566 members  
18           that the National Organic Standards Board take a  
19           position in favor of allowing organic  
20           certification of U.S. hemp crops grown under  
21           Section 7606 and recommend to the USDA that it move  
22           forward on organic certifications of hemp through

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1 the NOP.

2 Members of Vote Hemp, the National Hemp  
3 Association, and the general public have also  
4 signed a petition making this request, which was  
5 submitted as public comment to the NOSB.

6 Thank you for your time and  
7 consideration.

8 CHAIR FAVRE: Thank you.

9 Questions?

10 (No response.)

11 Thank you very much.

12 MS. BERLEKAMP: Thank you.

13 CHAIR FAVRE: Next up is David Will,  
14 followed by Bill Wolf on deck.

15 MR. WILL: Good afternoon. I wanted  
16 to thank the Board very much for the few moments  
17 that we have in order to address you.

18 My name is David Will. I'm with a  
19 southern California organic egg produce, and my  
20 comments are in relation to my involvement with the  
21 Methionine Task Force.

22 The Task Force represents about 70

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1 percent of the broiler industry, and we represent  
2 about 9 million of the organic laying hens in the  
3 United States, covering from large producers all  
4 the way down to several hundred small family farms.

5 We wanted to come and just give you a  
6 brief update because our industry has been bagged  
7 and complained about that. We have not come and  
8 given you regular updates and have not participated  
9 fully in this in the past. So, we want to make sure  
10 we at least give you any news that we have on a  
11 somewhat regular basis.

12 The next thing for our group is that we  
13 are going through and going to be doing a rather  
14 large fundraising opportunity because we are going  
15 out and soliciting research from several  
16 universities in order to look at some of the options  
17 and methionine sources that have been identified.

18 We are currently working with North  
19 Carolina State and Penn State, two professors  
20 there. They have also published several  
21 literatures that you can find.

22 A couple of things that we have looked

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1 at, which was, first, egg whites. It is kind of  
2 problematic with a vegetarian claim on our label.

3 One that we are very excited about and  
4 had some good initial luck with was Brazil nuts.  
5 However, the selenium content of Brazil nuts will  
6 make it practically impossible to get through  
7 AAFCO. That was our closest and best leading  
8 natural alternative at this time.

9 We are still investigating insects and  
10 working with AAFCO and the FDA to find out what we  
11 need to do to get those approved and what form they  
12 would be allowed, and, also, what sort of ration  
13 that would look like. In addition, we would have  
14 to do some sampling in consumer feedback panels and  
15 taste panels to see if that has any impact.

16 We have now had three studies that have  
17 looked at heirloom breed birds on the layer side  
18 of the industry, and all of them have come back with  
19 the same conclusion: that all heirloom breeds do  
20 require the same methionine requirement as the  
21 modern breed. So, we are pretty convinced that  
22 that issue is closed, and we are not going to make

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1 longer looks into that.

2 And then, the last one is the  
3 high-protein corn. We have still had some issues  
4 with that of even having it available for small feed  
5 trials. Please know at this point in time all of  
6 our feed trials have been small in the last year,  
7 100 birds or so in very limited groups.

8 So, we are still looking at  
9 alternatives. We still have more that we are  
10 throwing on, and we are still looking and pursuing  
11 the insects.

12 And that's all. We just wanted to give  
13 you a brief update where we stand.

14 Thank you very much for all your time  
15 and effort and your hard work.

16 CHAIR FAVRE: Thank you very much.

17 Ashley?

18 MEMBER SWAFFAR: David, I just want to  
19 say thanks for coming and giving us an update on  
20 methionine. This is something that I think is  
21 important to the livestock community, to see that  
22 the poultry industry is moving forward.

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1           Do you have a paper with a summary of  
2           that that we could bring back to the Livestock  
3           Committee?

4           MR. WILL: Yes, I can put one together  
5           for you guys and, also, list of members and our  
6           fundraising goal for the next go-round.

7           MEMBER SWAFFAR: Yes, I think that  
8           would be really important for us, as a Committee,  
9           to kind of understand you a little better.

10          MR. WILL: Sure.

11          MEMBER SWAFFAR: Thank you.

12          MR. WILL: Thank you.

13          CHAIR FAVRE: Thank you very much.

14          Next up is Bill Wolf, with Laura Batcha  
15          on deck.

16          MR. WOLF: Okay. Wow, almost last.

17          Welcome, new members.

18          I'm Bill Wolf with Wolf DiMatteo &  
19          Associates. We have submitted numerous written  
20          comments, some of which are on the slide on the wall  
21          now. But today I come in person to praise your work  
22          and to share some history.

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1           NOP is the most public and transparent  
2 rule in the world. Organic is the only standard  
3 that bridges all crops, animals, and climates, and  
4 it is the strictest and most complex review of ag  
5 and food in all of history. We are making a  
6 difference and we should unite to stand proud and  
7 stand tall.

8           But decisions can be difficult when  
9 converting a philosophy into regulations. As a  
10 farmer, researcher, supplier, and consultant for  
11 45 years, I have been seeking best organic  
12 practices and products.

13           When establishing allowed materials  
14 lists over the last 30 years, we faced the question,  
15 what tools are really necessary and useful in  
16 organic systems? From this history, I ask you to  
17 consider the following four principles during your  
18 deliberations:

19           One, don't make shrinking the list a  
20 goal. Vote based on encouraging organic as a  
21 production and processing method.

22           This list is not a popularity contest

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1 of how many comments were for or against a material.  
2 You also represent the silent and the future, and  
3 it is not about public misconceptions or even  
4 potential allergens.

5 Three, consider a respect for the work  
6 and deliberations of past NOSB votes. We can't  
7 constantly reinvent the wheel.

8 Four, weigh the criteria in the Organic  
9 Foods Production Act and the regs and, then, decide  
10 if it may help increase acreage, earthworms, and  
11 planetary health.

12 Thank you for your extraordinary work  
13 to advance organic and sustainable agriculture.  
14 Keep up the good work. And most important, have  
15 fun and make a difference in this process.

16 Thank you.

17 CHAIR FAVRE: Thank you.

18 Any questions?

19 (Applause.)

20 Tom?

21 VICE CHAIR CHAPMAN: Bill, you have  
22 been involved in this industry for a long time, in

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1 this community. Can you give us some perspective  
2 on where you see standards are today versus 20 years  
3 ago?

4 MR. WOLF: It is much more disciplined.  
5 I mean, the summary would be far more clear,  
6 transparent, and far more strict.

7 I actually helped and worked with a  
8 number of certifiers on their decisions, and there  
9 were differences between the different certifiers  
10 in that era, even than there is today, in fact. And  
11 there is still work being done to align the  
12 interpretations of the current National Organic  
13 Program rules and worldwide alignments as well.

14 The fundamentals are that there is a  
15 uniform methodology for reviewing things, but,  
16 most importantly, there are many materials that we  
17 used to allow and are no longer allowed. The  
18 actual list of tools that are available, both to  
19 farmers and in processing over the last 20 years,  
20 has become much tighter. And yet, the  
21 communication to the public is that it has become  
22 weaker. This standard is actually tighter today

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1 than it was 20 years ago or 10 years ago or 5 years  
2 ago or 2 years ago.

3 CHAIR FAVRE: Thank you very much.

4 MR. WOLF: Sure.

5 CHAIR FAVRE: Next up is Laura Batcha,  
6 followed by Dick Siegel on deck.

7 MS. BATCHA: Hi, everyone. I'm Laura  
8 Batcha. I'm the Executive Director of the Organic  
9 Trade Association. We are a member-based business  
10 association.

11 And the resource booklet that we put  
12 together has some great information about our  
13 membership, our governance, our decisionmaking  
14 processes, beginning on page 50. So, if you don't  
15 know much about us, I encourage you to take a look  
16 there.

17 I wanted to speak to you today primarily  
18 about the seed purity discussion document, but I  
19 want to take a moment, reluctantly, first, to  
20 correct some inaccurate information that was  
21 shared from the podium yesterday.

22 And I say "reluctantly" because the

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1 Trade Association and I personally do trust the  
2 Board as individuals to be able to sift through what  
3 you hear from the podium in a couple of long days  
4 of public comment. The challenge is that we do  
5 have a transcript of the records and statements  
6 become a record in the transcript. And these  
7 transcripts have a way of coming back five years  
8 later, when there is a new set of volunteer Board  
9 members or in court cases that we might not have  
10 been anticipating. So, indulge me just for a  
11 moment.

12 You heard a few things yesterday  
13 regarding the Organic Materials Review Institute,  
14 and my colleagues John Ashby and Peggy Miars  
15 addressed those concerns. So, I won't go into that  
16 in detail.

17 You did hear some statements that have  
18 been made from the podium before regarding the  
19 Organic Trade Association's nonprofit arm  
20 conducting technical reviews under contract for  
21 the National Organic Program. The Organic Trade  
22 Association does administer a 501(c)(3) research

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1 organization called the Organic Center, and we have  
2 administered that organization for a number of  
3 years.

4 Prior to our administration of the  
5 organization, it was an independent nonprofit.  
6 Part of the terms and conditions for the Organic  
7 Trade Association taking over the administration  
8 of that organization was to, first, cancel the  
9 contract with NOP for the conducting of the  
10 technical reviews. That was a requirement of the  
11 terms and conditions of assuming responsibility  
12 for the nonprofit that was made by the Trade  
13 Association. I know because I wrote the letter and  
14 I made the call myself to NOP prior to signing off  
15 on this deal with the other organization, because  
16 we really didn't feel like it was our role to be  
17 involved in technical reviews. So, I just want to  
18 make it clear to folks that that is the accurate  
19 record on that.

20 And then, the third thing I want to  
21 address is I would encourage the National Organic  
22 Program to address again for the transcript

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1       allegations regarding uninvestigated complaints.  
2       I think we all invest a lot in oversight on this  
3       program, and I would hate for the public or future  
4       individuals to look at those transcripts and see  
5       those allegations go unanswered.

6               On the seed purity document, we really  
7       support the Seed Purity Advisory Task Force. I  
8       serve on a separate FACA committee called AC21. We  
9       are charged with advising the Secretary on issues  
10      related to coexistence. Right now, we are working  
11      on a mandate that has to do with recommendations  
12      to develop joint coexistence plans between  
13      organic, identity-preserved, and conventionally  
14      GMO agriculture to be --

15                       (Timer rings.)

16               I'm happy to answer questions about  
17      that, if you are interested in what we are doing  
18      and how your work may impact that.

19                       CHAIR FAVRE: Zea?

20                       MEMBER SONNABEND: How could AC21 work  
21      with our efforts about GMOs?

22                       MS. BATCHA: Thanks, Zea.

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1           So, as we have been working on our  
2       recommendations, one of the first things that I did  
3       was share with the AC21 Advisory Committee the work  
4       you all did to pass the recommendation, the  
5       guidance recommendation, on contamination  
6       prevention practices. And that helped serve as a  
7       model for, first, educating my colleagues about all  
8       the things organic farmers are already doing and  
9       continue to strive to do. And it is helping shape  
10      some of the side-by-side formats for these joint,  
11      coexistence templates.

12           The place that we are really challenged  
13      in our work is there is a range of views on that  
14      Committee as to the importance of seed purity in  
15      a joint, coexistence plan. So, there has been a  
16      reluctance to take on the idea that, if you are  
17      working with your neighbor on preventing  
18      cross-pollination, if nobody knows what you are  
19      starting with for seed, all of your efforts might  
20      be for naught. And this is a real sticking point  
21      on us getting anywhere with the recommendations.

22           So, I am looking for support from this

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1 Board to help bolster that case and to help USDA  
2 get involved in it because the providers of the  
3 technology are not going to release those purity  
4 standards freely and willingly without some good  
5 leadership and courage on the part of the  
6 Department and the community.

7 CHAIR FAVRE: Tom?

8 VICE CHAIR CHAPMAN: So, in supporting  
9 the NOSB's work, the NOP funds the technical  
10 reviews we get as well as some of the other advice  
11 that comes through us through technical reviews,  
12 technical panels like we have here. That is  
13 outside of the FACA funding.

14 And so, in general, I would say greater  
15 funding for the NOP would, then, in turn, support  
16 the NOSB's functionings as a Board. Can you speak  
17 to OTA's efforts on funding the NOP?

18 MS. BATCHA: Yes, happy to. I think I  
19 would first start by saying, in this unique  
20 public/private partnership we expect a lot of  
21 response, rightly so, from our government in  
22 regards to organic. It has to do with the work of

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1 the NOSB, the technical reviews, the expert panels  
2 that we convene, but it also extends beyond that.

3 We have expectations for the program on  
4 robust investigation of complaints, accreditation  
5 oversight, making sure the certifiers and  
6 inspectors are all trained up and educated,  
7 overseeing a global program and new approval  
8 arrangements. So, it is a lot of expectation. We  
9 actually like to hold the program accountable for  
10 our expectations.

11 The farm bill in 2014 authorized  
12 funding for the National Organic Program at \$15  
13 million a year. Since sequestration about, I  
14 think, maybe 2009 -- somebody might correct me on  
15 that year, '08, '09, '10, something in there -- the  
16 program got a bump-up in their annual  
17 appropriations to about \$9.1 million. It has been  
18 flat-funded since then.

19 We advocate for that every year, and I  
20 will, quite frankly, say we have been a little bit  
21 challenged by getting the community to speak with  
22 one voice about supporting resources for NOP to do

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1 all the things we demand they do. So, we hope that  
2 our colleagues in the community will continue and  
3 join us in that effort.

4 CHAIR FAVRE: Thank you very much.

5 MS. BATCHA: Thank you.

6 CHAIR FAVRE: Our final commenter  
7 today will be Dick Siegel.

8 MR. SIEGEL: Good afternoon. I'll try  
9 to be very brief because this is a rather narrow  
10 technical point that I am going to comment on.

11 My name is Richard Siegel. I'm an  
12 attorney in Washington, D.C., and my specialty is  
13 the National Organic Program. I have been in this  
14 specialty for more than 10 years.

15 My client today is Absorbent Products  
16 Limited in British Columbia, and my subject is  
17 three pending petitions before the Livestock  
18 Subcommittee. These are the petitions for  
19 aluminum sulfate, sodium bisulfate, and  
20 acid-activated bentonite. And there are  
21 technical evaluation reports that have been posted  
22 for all three of these petitions. The Committee

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1 is about to act on them.

2 These are all synthetic substances, and  
3 they are all intended to do the same thing; i.e.,  
4 control ammonia in poultry houses. My client,  
5 Absorbent Products, makes a natural product that  
6 is OMRI-listed called Activated Barn Fresh. And  
7 Activated Barn Fresh does the same thing that these  
8 synthetic products do that are being petitioned.  
9 So, this accounts for our interest in these three  
10 petitions.

11 In looking at the three TRs, looking at  
12 them individually and collectively, we have noted  
13 certain gaps and inconsistencies in the TRs. We  
14 have prepared a memorandum, and this has now been  
15 entered into this meeting docket.

16 So, I ask the Livestock Subcommittee to  
17 take a look at our thoughts and observations, so  
18 that, as you look at the TRs, you could consider  
19 the possibility that there are gaps in the TRs that  
20 you should be aware of.

21 The gaps relate to sulfuric acid. All  
22 three materials involve sulfuric acid. We looked

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1 in the TRs for a complete history of all the  
2 previous actions by this Board on sulfuric acid.  
3 We did not see a complete list. So, we have  
4 supplemented that in our memorandum.

5 The other inconsistency is that natural  
6 alternatives, including our product, Activated  
7 Barn Fresh, are treated not in a consistent way  
8 throughout the three TRs.

9 So, this is our sole reason for being  
10 here today, and I appreciate the staff for fitting  
11 us in.

12 And I also want to welcome the new  
13 members, many of whom I have known for a long time.  
14 I wish you all a successful run on the NOSB.

15 Thank you.

16 CHAIR FAVRE: Thank you very much.

17 Ashley?

18 MEMBER SWAFFAR: Hey, Dick, I just want  
19 to let you know I'm the lead on all three of those  
20 materials.

21 MR. SIEGEL: Yes.

22 MEMBER SWAFFAR: So, I would like to

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1 have a conversation with you afterwards to get some  
2 more information on that product. We will be  
3 looking into the three letter amendments this  
4 summer.

5 MEMBER SWAFFAR: Yes, I understand  
6 that. Thank you very much.

7 CHAIR FAVRE: Thank you very much.

8 And with that, we are going to conclude  
9 the public comment section of our meeting this  
10 week.

11 Thank you all for participating. It  
12 helps us a lot on the Board to hear your  
13 perspectives.

14 The next item on our agenda is going to  
15 be the expert panel discussion on emerging  
16 technologies in agricultural biotechnology.

17 So, we will take a few minutes to allow  
18 our panelists to get up here. I urge you not to  
19 leave the room if you want to be here for the start  
20 of it. And I ask the Board members to not leave  
21 because we are going to try to get started with this  
22 as quickly as possible.

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1 Thank you.

2 (Whereupon, the foregoing matter went off the record at 1:54 p.m. and  
3 went back on the record at 1:57 p.m.)

4 CHAIR FAVRE: I would like to turn this over to Lisa de Lima to  
5 introduce our panel. Lisa is the Chair of the Materials Subcommittee.

6 MEMBER DE LIMA: Thank you, Tracy.

7 Before I get started with  
8 introductions, I think Tom has something he wants  
9 to say to the Board.

10 VICE CHAIR CHAPMAN: Yes. We just  
11 wanted to disclose for the public record and for  
12 transparency something that myself and my company  
13 are actually quite proud of, but that Professor  
14 Tracy is endowed Chair funded by the Clif Bar Family  
15 Foundation and Organic Valley. And I work for Clif  
16 Bar.

17 Thank you.

18 MEMBER DE LIMA: All right. So, I am  
19 going to go ahead and give an introduction for each  
20 of our panelists. Then, we are going to proceed  
21 through each of their presentations. And then, at  
22 the end, we will have some time for questions from

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1 the Board.

2 All right. So, Dr. Ralph Scorza is a  
3 research horticulturist and lead scientist for the  
4 Genetic Improvement of Fruit Crops Research Unit  
5 of the USDA-ARS, Appalachian Fruit Research  
6 Station in West Virginia.

7 He received his BS and MS degrees in  
8 agronomy and plant physiology from the University  
9 of Florida and received his PhD in plant genetics  
10 and breeding from Purdue.

11 He and his USDA colleagues developed  
12 the FaTrack Program for Accelerated Fruit Tree  
13 Breeding and is a Fellow at the American Society  
14 for Horticultural Science.

15 Dr. Bill Tracy is the Clif Bar Family  
16 Foundation and Organic Valley Professor of Organic  
17 Plant Breeding and the Chair of the Department of  
18 Agronomy at UW-Madison.

19 He received his BS and MS degrees in  
20 plant and soil science from the University of  
21 Massachusetts-Amhurst and a PhD in plant breeding  
22 from Cornell University.

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1 Dr. Tracy's research is on sweet corn  
2 improvement, and he has been active in the Seeds  
3 and Breeds Group, and is Chair of the Maize, Corn,  
4 Germplasm Committee.

5 Dr. Michael Hansen is the Senior Staff  
6 Scientist with Consumers Union, the publisher of  
7 Consumer Reports. He has been largely responsible  
8 for developing Consumers Union's position on  
9 safety, testing, and labeling of  
10 genetically-engineered foods.

11 Dr. Hansen served on the USDA Advisory  
12 Committee on Agricultural Biotechnology and on the  
13 California Department of Food and Agriculture Food  
14 Biotechnology Advisory Committee.

15 He received his doctorate in ecology  
16 and evolutionary biology from the University of  
17 Michigan and did his post-grad study on the impacts  
18 of biotech on agricultural research.

19 And lastly, we have Dr. David Gould,  
20 currently serving as the Program Facilitator for  
21 IFOAM, Organics International, and is their lead  
22 on developing a revised position on genetic

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1 engineering and breeding techniques.

2 In that role, he has coordinated a  
3 global consultation on GE and chairs the IFOAM  
4 Working Group on Breeding Techniques. He has  
5 served on the OMRI Advisory Counsel and as an  
6 advisor and in other technical roles to the Non-GMO  
7 Project.

8 He has a degree in life sciences from  
9 MIT.

10 So, I want to thank you all for being  
11 here, and we are going to go ahead and start with  
12 Dr. Gould.

13 DR. GOULD: Thanks very much for having  
14 me here and for allowing me to speak for the  
15 position of IFOAM, Organics International. We  
16 are, as the umbrella organization for the organic  
17 movement worldwide, very glad to be able to  
18 contribute to this discussion and, both now and in  
19 going forward, to help facilitate a global  
20 harmonized discussion.

21 When I read the NOSB work on this, I was  
22 really pleased. You have made my job actually

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1 quite a bit easier because of the excellent quality  
2 of it. And technically speaking, I don't  
3 necessarily have a lot of criticism or critique or  
4 differences. I can highlight a few things in my  
5 comments, but I want to acknowledge the good and  
6 thorough that is being done. It is largely in  
7 concert with the kinds of thoughts and discussions  
8 that have been going on in other parts of the world.  
9 You have relied on the FiBL dossier as well.

10 One thing I did not see mentioned was  
11 the ECO-PB position paper, the European Consortium  
12 on Organic Plant Breeding, which I would also  
13 recommend as a very valuable resource. I would be  
14 glad to share that going forward.

15 And I think this is a strong discussion.  
16 I know, from talking with Zea and a few others  
17 earlier, that there is a timeline pressing to take  
18 some action and make a decision on this proposal.  
19 We would hope that there could be some more  
20 international harmonization and, by that, I would  
21 also mean now synchronization of the discussions  
22 to make sure that the kinds of decisions that are

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1 being taken here can be acceptable and  
2 mutually-agreeable with other parts of the world.

3 The most active place on the discussion  
4 is in the European Union. In reality, the European  
5 Union has postponed its legal interpretation until  
6 the end of 2016, due to a variety of considerations.  
7 And they actually have not given much further  
8 specification on that. So, we do have a little bit  
9 of time.

10 The IFOAM EU group, which is probably  
11 the most active group in the European Union on these  
12 kinds of issues, has put forth a position paper  
13 which is very much in line with what the NOSB has  
14 put out. And it is generally a precautionary  
15 approach to take all of these new technologies and,  
16 at least for the time-being, consider them all what  
17 would be considered here "excluded methods," as a  
18 way to protect the organic sector from these  
19 emerging technologies, some of which are clearly  
20 there is consensus about that they shouldn't be  
21 allowed and others where there might be some more  
22 discussion. But that is a stop-gap in a sense.

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1 Our position is to be supportive of that position,  
2 but to also continue the discussion going forward.

3 With that, I would like to just make a  
4 comment about the broad picture. In my 20-plus  
5 years of working on this issue, I have never found  
6 anything as complicated as the GMO issue. It is  
7 getting more complicated. And really, what is  
8 happening now is we are entering a phase in humanity  
9 of genetic disruption that we have never seen  
10 before. The technology is growing fast. It is  
11 widely accessible.

12 One of the jobs that I do at IFOAM is  
13 I monitor the generic top-level internet domain  
14 .bio. We check for compatibility with the  
15 principles of organic agriculture. And I can tell  
16 you, just by screening those things, it is very  
17 readily apparent that the technology is very  
18 accessible and relatively cheap.

19 What we are heading toward is a  
20 situation in the future where there will be genetic  
21 mixing like we have never seen before. And as a  
22 movement and as a sector, as a market, we have been

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1 chasing at the heels of a very rapidly-moving  
2 technology and we need to get out in front of it,  
3 prepare ourselves for a future where we have to be  
4 clear about what our guarantee is, what our message  
5 is, how we take our process-based approach, yet  
6 also meet consumer expectations for the quality and  
7 the content of foods.

8           You know, we are talking about  
9 technologies which are going to be much more  
10 difficult to detect. And even if they are  
11 detectable, what we are going to do with those  
12 results and who is going to actually pay for all  
13 of that testing, we cannot put that burden on  
14 organic producers or on the organic market. We  
15 need to probably come to grips with the fact that  
16 not every or any one lab is necessarily going to  
17 have all the technologies available to do that  
18 detection. And there may need to be some kind of  
19 cooperation.

20           But, even more so, this is not an issue  
21 which should be just left to the organic sector to  
22 fend for itself. This is a broader regulatory

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1 issue for the common good, and we need to have  
2 better regulations about the release of these  
3 technologies. This is something that I would urge  
4 USDA to take on as a broader issue than just the  
5 National Organic Program. There needs to be a true  
6 accounting for liability that may be caused by the  
7 introductions of these technologies.

8 I think as far as criteria and  
9 definitions, that the two of those must go  
10 together. We don't have any particular problem  
11 with the kinds of definitions that are being  
12 proposed right now by NOSB. I do think that there  
13 could be some wordsmithing going on in the future.  
14 But the criteria and the definitions must go  
15 together to ensure the common benefit for the  
16 organic sector.

17 One second, sorry, here.

18 I have been asked a few questions by the  
19 Board here. So, I think I have answered the  
20 question about how this fits with organic  
21 regulations and IFOAM.

22 There is a question about detection

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1 technology. Technically, we don't have the real  
2 answer to that, except for what I have already told  
3 you.

4 As far as the terms in the chart, I can  
5 tell you about a few of the approaches that we have  
6 taken. One is on cell fusion, in particular, cell  
7 fusion within plant families. We have a motion  
8 from our General Assembly that was to try to develop  
9 a strategy for the replacement of varieties derived  
10 from cell fusion, including protoplast or  
11 cytoplasm fusion that have had a presence in  
12 organic farming practices. Our idea is to develop  
13 some guidelines for the socioeconomic  
14 implementation of those strategies and to promote  
15 alternative breeding programs, one of the things  
16 that was to try to replace those kinds of varieties  
17 over time. Now, being able to trace back and find  
18 them is obviously a difficult and challenging  
19 endeavor, but we are determined to try to get toward  
20 that.

21 Some of the proposal also from NOSB  
22 mentions the possibility of having organic plant

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1 breeding standards in the future as to what  
2 constitutes an organically-bred variety. We are  
3 in support of that and are considering similar  
4 things. And we would be very interested in  
5 collaborating on it.

6 In that vein, I would also say that our  
7 position is that there needs to be globally  
8 national bases or other types of collaborations,  
9 much more public funding put into the development  
10 of improved genetics through what would be  
11 acceptable methods.

12 I never really liked, I have to say, the  
13 "excluded methods" terminology, but now I think it  
14 may actually be one of our saving graces because  
15 we may be able to get past some of the  
16 micromanagement of definitions that some forces  
17 who would like to see us regulate these  
18 materials -- you know, use that as a loophole.

19 The only other thing I would say about  
20 what is in the chart is I can say something about  
21 the induced mutagenesis. Our position on those,  
22 whether it is induced mutagenesis or other types

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1 of, shall we say, extracellular stimuli, are ones  
2 where we feel like we need to continue the  
3 discussion to get some better clarity on whether  
4 or not these meet the principles of organic  
5 agriculture, in particular, the precautionary  
6 principle. So, we support more discussion on  
7 those, the precautionary approach for the  
8 meantime, and are happy to try to consider those  
9 TBD categories.

10 The only other part from the  
11 terminology chart that I think that I have seen in  
12 global discussions are things like embryo rescue  
13 from plants, which there is a considerable amount  
14 of interest in potentially considering those as  
15 compatible with organic.

16 The final piece, statement, that I will  
17 say right now is that we are also very concerned  
18 by the overall scope of genetic technology and the  
19 introduction of GMO insects and other kinds of  
20 things which are not mentioned in these plant  
21 breeding techniques, but that is something that we  
22 need to also take into consideration.

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1           So, I don't know how much time I have  
2 used, but I will stop there and wait for some  
3 questions later.

4           Thank you.

5           MEMBER DE LIMA: Thank you.

6           We are going to move on to the next  
7 panelist and save questions for the end.

8           So, Dr. Scorza?

9           DR. SCORZA: Well, thanks very much.  
10 I really appreciate being here and to be able to  
11 talk with this group and the Board about some of  
12 the work that we are doing.

13           I would like to just mention that I am  
14 a plant breeder. I have been a tree fruit breeder  
15 for the last 36 years. Most of my work, the  
16 varieties that we have developed have been  
17 conventional varieties of peaches, nectarines, and  
18 plums. We have done some genetic engineering.

19           What I would like to talk with you all  
20 about today is one of the techniques that is on your  
21 list of "To Be Decided". And that is FaTrack  
22 breeding. So, I would like to run through the

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1 FasTrack breeding just give you an idea of why we  
2 are doing it, how we are doing it, and what we think  
3 the advantages of this technology might be.

4 So, FasTrack breeding. Okay, here we  
5 go. What is the problem? Why are we interested  
6 in this? Because, as I mentioned, most of my work  
7 has been conventional breeding, developing  
8 varieties through hybridization and selection,  
9 very traditional type of work.

10 But this is how the breeding program for  
11 tree fruits run: you can see the gentleman on the  
12 ladder there. We pollinate these flowers on  
13 trees. We pollinate literally hundreds of  
14 thousands of flowers. So, we have to strip all the  
15 male parts of the flower off, so the flower doesn't  
16 self-pollinate itself. And then, we apply the  
17 pollen from what will be the male parents. Now  
18 here is the female, and the male is the pollen. We  
19 do that for hundreds of thousands of flowers.

20 Many times in the spring we will get  
21 cold temperatures and we have to try to protect  
22 those pollinated flowers from frost. I can tell

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1 you in the last five years we have had early spring  
2 warm-ups in the middle of March here in West  
3 Virginia, which is we are about an hour-and-a-half  
4 from D.C., west of D.C. So, we have had early  
5 warm-ups in mid-March and, then, we have had very  
6 severe frosts and we have lost many, many of our  
7 hybridizations.

8 So, then, the next step is we collect  
9 the fruit, extract the seed. We grow the seed in  
10 the greenhouse until the next spring and, then, we  
11 plant the trees out in the field.

12 Then, what we do is we wait three to four  
13 years to see the fruit that are produced.  
14 Meanwhile, we can be inspecting the trees for  
15 disease-resistance or other characteristics. We  
16 have to wait three to four years to see the fruit.  
17 So, that is the program that we run. What we have  
18 done, what we have pollinated this year, we won't  
19 see the fruit for three or four years from now.

20 The problem is that these trees have a  
21 long generation cycle. Then, to improve a trait,  
22 such as disease-resistance and combining

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1 disease-resistance with fruit quality that will be  
2 accepted in the market, we have to go through many  
3 generations of breeding, and each generation  
4 taking three to four years. So, in practice, it  
5 takes 15 to 20 years to produce a new variety.

6 Now, if you are bringing in traits from  
7 a wild variety, so let's say disease-resistance but  
8 you have really poor fruit quality, making the  
9 fruit hardly edible because they may be very  
10 bitter, it takes many years of crossing that  
11 germplasm with desirable traits to wind up with an  
12 edible fruit, with a high-quality fruit that has,  
13 for example, your disease-resistance.

14 So, we thought, how can we get around  
15 this problem of these long generation cycles and  
16 the years and years it takes to produce a new  
17 variety? Well, one solution, we figured, was  
18 maybe hire younger fruit breeders. That came up  
19 with some problems, and I don't especially like  
20 changing diapers. So, we thought, well, maybe  
21 that wouldn't work.

22 The other solution that we came up with

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1 was what we call FasTrack. It is a breeding system  
2 that utilizes genetic engineering for producing  
3 very fast generation cycles. But, in the end, it  
4 doesn't produce a genetically-engineered final  
5 product. So, I would like to go through that  
6 system with you and show you how we did it.

7 The first thing we did was we had to put  
8 the gene into the fruit tree. So, we are using plum  
9 because plum is really a good system for us. It  
10 is rather easy to genetically engineer.

11 This is the little pieces of plum tissue  
12 that we get the gene into. What we found was that,  
13 when we took a gene from a poplar tree, now that  
14 gene is a gene that normally is part of the  
15 flowering cycle. So, when plants flower, some  
16 genes are turned on; some genes are turned off.

17 And one of these genes was shown in the  
18 literature to, when you turned it on, it would cause  
19 poplar trees to flower early. So, we said, "Let's  
20 see what it would do in plum." Plum has the same  
21 gene, but it was easier for us at that point in the  
22 research to go get the poplar gene because we knew

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1       how well it worked.

2                     It actually didn't work real well in  
3 poplar, but when we put it in plum, it worked very  
4 well.  What do I mean when I say, "It worked very  
5 well."?  Well, within 10 months after putting the  
6 gene in, we had little plum trees in the greenhouse  
7 flowering and producing fruit.  It produced a  
8 fruit within a year.

9                     When we took the seed from these little  
10 plum trees in the greenhouse and planted them, we  
11 produced flowering and fruiting plum trees in the  
12 greenhouse that gave us a generation cycle, a  
13 one-year generation cycle.

14                    So now, we got pretty excited about that  
15 because we knew now, instead of waiting  
16 three -- actually, plum takes about four years,  
17 instead of three.  Peaches take three years.  
18 Plums take about four to six years to produce fruit  
19 from seed.  So, we reduced the generation cycle  
20 from four years on average to one year.  This had  
21 tremendous potential benefits for our breeding  
22 program.

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1                   Here is how it worked. We put the gene  
2                   in. We have this tree now. This is a plum tree.  
3                   We put the gene in there. You see this little "T"?  
4                   That means it has the flowering T gene in it. And  
5                   the gene is called the FT gene. Okay?

6                   So now, we had this early flowering plum  
7                   tree. What we did, then, was we crossed it with  
8                   a tree that was, for example, disease-resistant.  
9                   And it could be any other trait. It could be high  
10                  vitamin C. It could be any trait, but we will say  
11                  disease-resistance.

12                  We made that cross. Now we could use  
13                  molecular markers. And I think molecular markers  
14                  are on the accepted list from the NOSB  
15                  deliberations.

16                  So, when we did that, we wound up with  
17                  these early-flowering. Twenty-five percent of  
18                  these trees would have the disease-resistance and  
19                  the early flowering.

20                  We took those to the next generation.  
21                  And now, we start crossing back to high-quality  
22                  fruit. The system now here is basically the same

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1 exact system we would use with conventional  
2 breeding. The difference is it goes much faster.  
3 So, instead of waiting for each generation four to  
4 six years, we wait one year, and we do our crosses  
5 the same way we would do it through conventional  
6 methods. The only thing is it is very fast.

7 In the end, when we find trees that have  
8 the high-quality fruit, they have the  
9 disease-resistance, that is our last generation.  
10 Now in that last generation we don't take the trees  
11 that have the early flowering gene. We don't  
12 select those. And we don't select the trees that  
13 are not disease-resistant. What we do is we select  
14 the disease-resistant trees that have the fruit  
15 quality that we want. Okay?

16 So now, these are eliminated. These  
17 trees are not considered by the regulatory agencies  
18 to be genetically-engineered. There are  
19 considered to be no different from  
20 conventionally-bred fruit. Now, though, since  
21 that doesn't have the early-flowering gene in it,  
22 we have to wait that four years to see exactly what

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1 the fruit are going to look like.

2 This cycle here, what we call  
3 back-crossing -- that is, crossing back to  
4 something that we want in terms of high quality or  
5 some other trait that we really want to get into  
6 that plant -- that back-cross breeding takes a  
7 breeder's lifetime in many cases.

8 So, I have been working 36 years, and  
9 now I am really, really seeing the results of all  
10 my years of back-crossing conventionally. I think  
11 we need to do something that is faster than that,  
12 and I will show you in a few minutes why I think  
13 that is true.

14 This process that I showed you here,  
15 this back-cross breeding process here,  
16 conventionally would have taken 20 years. With  
17 the FaTrack breeding it takes eight years. So,  
18 you can see the benefits for a tree fruit breeder.

19 Okay. All right. This is what it  
20 looks like in the greenhouse. These are the little  
21 plum trees that are producing fruit. They are  
22 flowering in the greenhouse. We pollinate them in

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1 the greenhouse. They produce fruit in the  
2 greenhouse. They even are flowering and fruiting  
3 at the same time. So, here we have fruits that are  
4 ripening and they are also flowering. So, we can  
5 be breeding all year-round in a greenhouse, and  
6 that really speeds up the process.

7 The fruit are normal. We have done  
8 analysis of the compositional analysis. They have  
9 the same composition. They are within the range  
10 of all the plums that we conventionally breed. So,  
11 we have looked at that.

12 Again, now what we are doing is this is  
13 the system that we were using, four-to-six-year  
14 generation cycle, one pollination/fruited per  
15 year. So, you've got one shot a year to do your  
16 pollinations. If you get a cold snap, you have  
17 lost everything.

18 Disease and insect and weed pressures,  
19 of course, we have this in the field. We lose fruit  
20 because of fruit rots and insects, especially in  
21 the past few years stink bugs.

22 FaTrack, one-year generation. We can

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1 make the crosses that produce fruit year-around.  
2 We avoid winter and spring injury in the field, and  
3 we reduce insect and disease pressures. So, that  
4 is what we are looking, that is the system that we  
5 are working with.

6 This is the reason, one of the reasons  
7 we are so interested in this system. These are all  
8 exotic insects and diseases. I could show you  
9 three of these slides with everything that has come  
10 in in the past five to ten years.

11 Citrus greening, plum pox virus. Of  
12 course, we know about chestnut blight. We know  
13 about Dutch elm disease. Emerald ash borer, I have  
14 some beautiful big ash trees in my yard. They are  
15 succumbing to emerald ash borer.

16 If we have to wait 30 years -- and for  
17 some of these trees, you are talking more like 70  
18 years, 50 to 70 years to breed insects and disease  
19 in them, where we have lost, we will have lost most  
20 of these species, like we lost chestnuts, like we  
21 lost elm trees.

22 So, we are real interested in this

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1 because things are not the way they used to be. We  
2 have all these new diseases and insects coming in.  
3 As I say, if we have to wait all the years that it  
4 takes us, we will lose these species.

5 Do I think, then, genetic engineering  
6 is going to solve all our problems? Do I think  
7 FasTrack is going to solve all our problems?  
8 Certainly not. What it is is another tool for the  
9 plant breeders. We need a toolbox that has all the  
10 tools that we can possibly use, I think, to help  
11 agriculture.

12 Is it safe? We feel that all these need  
13 to go through the regulatory process. I think  
14 these decisions have to be made based not on  
15 necessarily the technology, but based on the gene  
16 that was put in and the safety of that gene.

17 So, we are hoping that this will be a  
18 methodology that will gain acceptance because,  
19 certainly, I think for tree fruit agriculture and  
20 our forest species we need to be thinking about what  
21 is coming down the road in the future, not only with  
22 exotic insects and diseases, but with climate

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1 change.

2 MEMBER DE LIMA: Thank you.

3 I'm going to turn it over to Dr. Hansen.

4 DR. HANSEN: Yes, thank you for  
5 allowing me to speak here.

6 I have also worked on the policy angle  
7 on this issue of genetic engineering for over  
8 20-some years.

9 I should point out, in addition to my  
10 introduction, Consumers Union is a founding member  
11 of Consumers International. That is a global  
12 network of consumer organizations. We have 220  
13 members in 113 countries. And Consumers  
14 International has basically taken a position on  
15 genetic engineering, that there should be required  
16 safety assessments and labeling. And we have done  
17 this since 1988.

18 But, more importantly, CI has been  
19 going to Codex Alimentarius meetings. What Codex  
20 is is that is the food-standard-setting  
21 organization of the United Nations. It is jointly  
22 run by the World Health Organization, the Food and

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1 Agriculture Organization. It was set up in 1963.

2 The idea behind it was basically to help  
3 developing countries set up food systems for their  
4 countries. And it was all voluntary. It was,  
5 actually, a sort of backwater within the UN, and  
6 that all changed in 1995 because at the Marrakesh  
7 Agreement, when they set up the World Trade  
8 Organization, it turns out Codex gets listed as one  
9 of the -- they call them "the three sisters".  
10 These are three organizations whose standards and  
11 guidelines that come out of them are considered the  
12 de facto global scientific standard.

13 And so, for Codex, since they were  
14 written in as food safety, any Codex standard,  
15 guideline, or our recommendations are considered  
16 trade-legal. So, that means they are not a  
17 non-tariff trade barrier.

18 The reason that this is important is  
19 because Codex spent, actually, eight years in the  
20 early 2000s with this Ad Hoc Intergovernmental Task  
21 Force on Foods Derived from Biotechnology. There  
22 were two four-year sets of these meetings. They

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1 were hosted by Japan.

2 The four documents that came out of this  
3 eight-year process were the principles for the risk  
4 analysis of foods derived from modern  
5 biotechnology. And then, there were three sets of  
6 guidelines, one for how to conduct food safety  
7 assessments for foods derived from modern biotech;  
8 how to conduct food safety assessments from foods  
9 derived from recombinant DNA microorganisms, and  
10 the third was from engineered animals.

11 The reason that these documents are  
12 important, since they are referenced by WTO, I  
13 should also point out that Codex, under the Codex  
14 Committee on Food Labeling, there's a global  
15 document that regulates organic agriculture as  
16 well.

17 So, this is just from the principles for  
18 the risk analysis of foods derived from modern  
19 biotechnology, and this is the definition that was  
20 finally agreed upon and that is written into, well,  
21 that is referenced in WTO. This is this modern  
22 biotechnology means "the application of (1) in

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1 vitro nucleic acid techniques, including  
2 recombinant DNA and direct injection of nucleic  
3 acids into cells or organelles or fusion of cells  
4 beyond the taxonomic family that overcome natural  
5 physiological, reproductive, or recombinant  
6 barriers, and that are not techniques used in  
7 traditional breeding and selection."

8 So, this is now the global definition.  
9 What we would like to see is there should be,  
10 basically, coordination with this. What that  
11 means I think for here is, rather than use the USDA  
12 definition, we would like to see that definition  
13 of modern biotechnology become the definition for  
14 genetic engineering.

15 It is basically broad enough that it  
16 does include virtually all the new  
17 genetic-engineering techniques. I have listed  
18 some of them here: cisgenic, intragenic, reverse  
19 breeding, oligonucleotide-directed mutagenesis,  
20 TALEN, meganucleases, ZFN, CRISPR/Cas, RNAi.

21 What is called synthetic biology is  
22 just use of various of these techniques to create

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1       either new pathways or, ideally, with synthetic  
2       biology -- they haven't done it yet -- but to create  
3       completely synthetic organisms. You can come up  
4       with new nucleotide bases. You can, supposedly,  
5       create chromosomes.

6               They haven't done any of this, but most  
7       of these technologies would fall under the  
8       definition of modern biotech. So, therefore, I  
9       think they should be considered GE and would be part  
10      of the excluded methods.

11             Now what is not included under this  
12      Codex definition is this TILLING, this Targeted  
13      Induced Local Lesions in Genomes. I thought what  
14      I would do now very quickly is just show you some  
15      of these new technologies, these gene-editing  
16      techniques, because they are proliferating.

17             What they allow you to do is one of the  
18      first forms of genetic engineering back in the  
19      seventies -- it was used in the eighties -- is these  
20      endonucleases. Think of them as molecular  
21      scissors where you can cut DNA.

22             And we have just gotten to the point

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1       that those scissors can be incredibly precise and  
2       they can be designed to cut in a specific place.  
3       And then, you can either have what is called  
4       homologous recombination or this non-homologous  
5       end joining.

6                 During each of these methods, that is  
7       when you -- for example, if you are going to change  
8       a single gene, you do this non-homologous end  
9       joining pathway. And then, if you want to insert  
10      larger pieces, you do the homology redirected.

11                So, let me give you some examples.  
12      This was one of the simplest first ones used, this  
13      ODM, this oligonucleotide-directed mutagenesis.  
14      And all they do is, once the DNA starts to unwind,  
15      you put a short nucleotide, an oligonucleotide.  
16      Here's one on the bottom and it is one nucleotide  
17      basis different. It is A here rather than C.

18                So, what happens is, if you add that to  
19      a cell culture system, you can actually mutate the  
20      DNA.        So that what happens is this  
21      oligonucleotide, which is exactly identical with  
22      this coding strand of DNA, there is one nucleotide

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1 difference. So that it basically binds to it and,  
2 then, the cell's own DNA repair mechanism allows  
3 that change to be made.

4 For example, this is what Cibus is using  
5 with this Responsible Trade Development System.  
6 It should be pointed out that, even though these  
7 things appear to be very exact, these small  
8 oligonucleotides, where they find that sequence,  
9 they can glom on there and make a change. And they  
10 are not always exact. There can often be  
11 off-target sequences.

12 So, this is just a paper that was  
13 published earlier this year, well, last year. All  
14 it does is show you the various scissors. The  
15 simplest one is this meganuclease. All a nuclease  
16 is is something that cuts a nucleic acid.

17 The one on the top is just a  
18 meganuclease. That is very hard to control.  
19 Then, you get down to these zinc fingers. Those  
20 are where the sequences that are the same are 15  
21 to 20 base pairs or 20 to 25. Then, what you get  
22 into is -- oops, let me go back; wait a

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1 minute -- TALEN. That is the second one which the  
2 sort of nucleotide basis that you are making the  
3 same or larger and larger. And then, this third  
4 one or this fourth one down here, this is what  
5 CRISPR is. This is where what you are using is  
6 RNAi. You are using RNA actually to help precisely  
7 target sequences that you want to cut.

8 As an example, here is where they took  
9 in flax, and using the CRISPR system, which is a  
10 bit more exact than the others, they were able in  
11 this EPSPS gene to make two nucleotide-based  
12 changes, here and here. Then, what that does is  
13 that mutates that loci and it becomes tolerant now  
14 to herbicides. So, that is an example.

15 And this is just a summary that looks  
16 at the zinc finger nucleases TALEN and CRISPR. It  
17 just shows you that, as you get to longer and longer  
18 sort of flanking regions, like with CRISPR and  
19 that, you can get more and more exact. Although  
20 it should be pointed out, even with CRISPR, you  
21 can't exactly control where things are done. So,  
22 it should be pointed out that, when they have tried

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1 to use CRISPR to edit human embryos, all the  
2 scientists have gotten together and have basically  
3 said, "We don't understand this technology well  
4 enough," even though it is more precise than  
5 previous methods, for example, of using a  
6 biolistics gun to shoot DNA into a Petri dish, this  
7 is far more exact, but they still can't precisely  
8 control it. That is why they argued that there  
9 should be no use on human embryos, because we still  
10 don't completely understand the off-target  
11 effects.

12 And I would point out that the same  
13 thing happens in plants. So, even though it  
14 appears to be more precise, we really have to look  
15 very carefully to see what other things are being  
16 disrupted.

17 Then, I guess, to end what I would like  
18 to say, is if we look at some of these other  
19 techniques, we will see that, even though the  
20 definition at Codex does actually exclude or does  
21 include -- well, I should say excludes cell fusion  
22 within the taxonomic family, that is something that

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1 does, I think, have to be debated within the  
2 community.

3 The same thing is true with induced  
4 mutagenesis, whether you are using chemicals or  
5 radiation. That is something that has been done  
6 for decades and decades. And some people might  
7 want to consider that outside the definition.  
8 Again, I think that is something that is going to  
9 have to be decided more broadly in the community.

10 I will say I do like the criteria you  
11 have in here, but this document needs to actually  
12 reference all organisms, not just plants, not just  
13 microorganisms. But you heard about the engineered  
14 insects that might be being tested in upstate New  
15 York this year or next year. And so, we need to  
16 include all these organisms in the sort of  
17 definition of genetic engineering, and they should  
18 be excluded from organic.

19 And then, other ones that are here, like  
20 cisgenesis and intragenesis, they are on the TBD,  
21 but I'm familiar with those. Those use a  
22 genetic-engineering technique. So, I would argue

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1 that both of those should be moved to the yes  
2 category, that they would be excluded.

3 I agree with the fact that  
4 marker-assisted as a selection is not an excluded  
5 technology, but a lot of these other ones, the cell  
6 fusion within plant family, embryo rescue, and even  
7 some of the, I think, transposons on some sense it  
8 sounds like it is silly that that is there, but we  
9 now know in plants like maize and that, that when  
10 you cross plants, you can actually induce mutations  
11 being caused by these transposons.

12 So, if it part of the conventional  
13 breeding process, I think it is sort of fine. Just  
14 like if you think about a transduction, that is if  
15 you are using phages, you know, as a form of pest  
16 control. Where I think it would switch over into  
17 an excluded category is if any of the parts of it  
18 have been engineered or have been manipulated using  
19 modern biotechnology.

20 Other than that, I did think this  
21 document, particularly the criteria, the  
22 principles, those four principles, those are

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1 actually very, very good ones. But, for your  
2 criteria and that, you need to expand to make sure  
3 that it includes all organisms.

4 Finally, on synthetic biology, what I  
5 would like to say there is, it is okay to have the  
6 language. There is some vague language on  
7 synthetic biology, a definition that is the  
8 definition that has come out of the Cartagena  
9 Protocol. If you just look at the wording itself,  
10 that is a further development, a new dimension, of  
11 modern biotechnology that combines science  
12 technology and engineering to facilitate and  
13 accelerate the understanding, design, redesign,  
14 manufacturing, and/or modification of genetic  
15 materials, living organisms, and biological  
16 systems.

17 It sort of seems so broad that it is  
18 somewhat meaningless, but I think it is fine if you  
19 want to keep this language in here. The reason  
20 that this is being discussed at the Cartagena  
21 Protocol is because there is this difference. In  
22 the Protocol the definition of modern

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1 biotechnology is the same in Codex and under the  
2 Convention on Biodiversity. However, they did  
3 define living modified organism rather than just  
4 be an organism that has been modified through the  
5 use of modern biotechnology. In the Cartagena  
6 Protocol they added a few words, and that is you  
7 have to have a novel genetic combination.

8 And that is a loophole that has been  
9 created. So, many of the countries and NGOs and  
10 others are there trying to ensure that synthetic  
11 biology techniques don't slip in, because what  
12 constitutes a novel genetic combination?  
13 Whereas, in Codex, any organism or cell that is  
14 created using or manipulated using modern  
15 biotechnology would fit into that definition. I  
16 think that makes it excluded. So, the reason you  
17 have all this arguing, from my viewpoint, under the  
18 Protocol with synthetic biology is because of this  
19 loophole, and they are trying to patch that up.

20 But I would point out that the U.S.  
21 never became a party to the Convention on  
22 Biodiversity. We are a member of Codex, and the

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1 Codex definitions are written into the WTO or are  
2 referenced. So, I would say, to be consistent, we  
3 should be using those.

4 And I would still argue you should still  
5 use the term "non-GMO" and "genetic engineering"  
6 or "genetically-modified organisms". And you can  
7 just define them in reference to modern  
8 biotechnology. And that would be fine.

9 Thank you.

10 MEMBER DE LIMA: Thank you.

11 Dr. Tracy?

12 DR. TRACY: Yes, thank you for inviting  
13 me. I know what a big job you guys have, and I want  
14 to thank you for the work you do as well.

15 I also want to thank Zea for an  
16 excellent document. I read the document pretty  
17 carefully. I read some of the comments. I have  
18 had numerous conversations.

19 The first thing I want to say is that,  
20 usually, in my normal day-to-day work, we are  
21 talking mostly science. Seldom do we talk about  
22 ethics. Seldom do we talk about values. Seldom

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1 do we talk about social impacts. Probably don't  
2 do it enough.

3 But I want to make that point here  
4 because, as you go through this document, that is  
5 an incredibly important part of what you folks are  
6 doing. This is not just about the science. This  
7 is about values and principles, about how organic  
8 farmers and processors want to conduct their lives.

9 That said, I would also say that it is  
10 critical really to talk about what organic is and  
11 not what it isn't. Talk about things like building  
12 soil and talking about the ethical and sociological  
13 values.

14 In this document you have a number of  
15 different sets of principles. Well, and I have  
16 actually picked up a couple of other ones as well  
17 that I want to mention. The NOSB has its own set  
18 of principles of organic production and handling  
19 in the Policy and Procedures Manual, and I won't  
20 read the whole paragraph. But "Organic  
21 agriculture is an ecological production management  
22 system that promotes and enhances biodiversity,

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1 biological cycles in soil, biological diversity."

2 Also, I think the IFOAM principles are  
3 in the document, and David talked about them. But  
4 the principle of health, the principle of ecology,  
5 the principle of fairness. That often doesn't  
6 come up in my day-to-day life. We talked about  
7 that one very much. Principle of care.

8 Michael Sly brought forward ideas from  
9 RAFI, precaution, compatibility, transparency,  
10 responsibility, access and sharing, farmer choice,  
11 and consumer trust. And the OSGATA group has  
12 principles specifically for organic plant  
13 breeding, "respects plant integrity, supports  
14 genetic diversity, remains farm-centered, and  
15 honors the public domain". So, these are big  
16 things. When we start talking about these  
17 different processes, we have to think about those  
18 as well.

19 The other thing I want to mention that  
20 I think is key to this conversation is that in the  
21 NOSB document that Zea's Subcommittee put  
22 together, it says, "Since the whole underpinning

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1 of the U.S. organic regulations is a process-based  
2 system, it makes sense that this concept carry over  
3 to defining excluded methods. This is, indeed,  
4 the basis of the current definition."

5 So, basically, if we are looking at  
6 these techniques or technologies with the idea of  
7 a process rather than a product standpoint -- and,  
8 also, another point I want to make, which Michael  
9 essentially alluded to, was that in the NOSB  
10 principles it also says, "genetically-engineered,  
11 modified organisms and products produced by or  
12 through the use of genetic engineering are  
13 prohibited."

14 When you take all of this together, I  
15 think some of these decisions or some of these  
16 included or excluded technologies become very  
17 clear, and it becomes pretty easy to sort them into  
18 different categories.

19 Now the big question for you  
20 folks -- and some of these things are already NOSB  
21 principles, so I'm not thinking you want to change  
22 those -- but it is really up in those principles

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1 and definitions and criteria that things become  
2 really critical. Because once you set those, then  
3 the other things are relatively easy, at least in  
4 sorting into different categories.

5 We were all asked to explain some of the  
6 terms of the terminology chart that you feel  
7 comfortable with or knowledgeable about in the  
8 context of the definition of "excluded methods".  
9 Targeted genetic modification, Michael talked  
10 about that in depth.

11 We are hearing a lot about gene editing  
12 and CRISPR/Cas9. That is the real hot one right now.  
13 In fact, Michael gave a pretty good description,  
14 and it is a pretty accurate form of mutagenesis.  
15 And it is a much safer form in terms of for the  
16 person who is doing the mutagenesis than the  
17 old-fashioned mutagenesis of x-rays or chemical  
18 mutagenesis.

19 So, much like Michael said, it is an  
20 accurate form of mutagenesis, but it does require  
21 GM technology, even though the product itself won't  
22 have the GM in it. If that is a criteria or a

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1 standard that NOSB takes into account, it is fairly  
2 easy for me to put that into a category.

3 Unfortunately, celebrated breeding  
4 techniques fall into the same thing. As Dr. Scorza  
5 said very clearly, there was a transgene put in to  
6 accelerate that.

7 Another interesting one that I will  
8 just mention is cisgenesis. Cisgenesis is also  
9 transformation, and therefore, again, according to  
10 these rules, would not be included. Cisgenesis is  
11 an interesting thing as opposed to the more typical  
12 transgenesis. Cisgenesis is where, essentially,  
13 all of the genetic material that is transformed  
14 into an organism comes from the same species or a  
15 very closely-related species.

16 And you might say, well, why would you  
17 want to go to the trouble? Well, if you have  
18 something like a citrus plant, a navel orange or  
19 a clementine tangerine, something like that, as Dr.  
20 Scorza knows, you can't just cross that quickly and  
21 get something new if you have a disease. But, if  
22 you could actually, through cisgenesis, transform

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1 a gene in, that would be a very quick technique that  
2 would allow disease resistance in a  
3 clonally-propagated crop. But, again, it would  
4 not be possible under the current criteria.

5 Other terms, "TILLING in corn," in corn  
6 TILLING is -- you've got it up there -- Targeted  
7 Induced Local Lesions, thanks to my colleague here.  
8 This is a really common method in corn to find  
9 genes, to find where they are in the genome, and  
10 then, also, sequence them. And TILLING in corn is  
11 completely natural because corn has internal  
12 transposons. If you cross something with active  
13 transposons to another corn line, you get all of  
14 these induced lesions. So, TILLING in the case of  
15 corn is 100 percent natural.

16 Double haploids, there are new methods  
17 being developed at Iowa State that would eliminate  
18 the toxic chemicals in double haploids. And  
19 double haploids, for those of you that don't know,  
20 is a quick way to make inbreds. So, rather than  
21 going through a repeated selfing process of six or  
22 seven generations, a double haploid can be made in

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1 a period of a year-and-a-half as opposed to five  
2 or six years for a regular inbred.

3 I would also say embryo rescue is a very  
4 old technology. I actually have a clone in my  
5 greenhouse of a cross between corn and Tripsacum,  
6 which is a relatively-distant ancestor of corn.  
7 The clone was made through embryo rescue in the  
8 forties.

9 Basically, an embryo rescue, all you  
10 really have to do -- the reason we have to do embryo  
11 rescue is because often in these wide crosses the  
12 embryo and the endosperm, which is the tissue,  
13 essentially, like the yolk in an egg, the endosperm  
14 and the embryo are incompatible. So, all you have  
15 to do is remove that embryo before, essentially,  
16 it dies because of the incompatible endosperm.  
17 You can, then, just culture -- usually, it is done  
18 on some kind of media, but it could be done even  
19 simpler than that. Again, embryo rescue is an old  
20 technology and I think it is something that I think  
21 could certainly fall within the standards.

22 Induced mutagenesis, I already

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1 mentioned that. The old random style, the  
2 chemicals are dangerous for the people who are  
3 handling them. X-rays, you all know about that.

4 On the other hand, there are lots of  
5 important cultivars that were developed through  
6 this technology. And eliminating that as a  
7 possibility would cause considerable disruption,  
8 at least in some sectors of ag.

9 The other thing I want to mention is  
10 many of these newer techniques, including  
11 FasTrack, including most of the gene-editing  
12 systems, as far as I know, there will not be tools  
13 to actually detect them. The transgenic part has  
14 gone away by the time the product is out in the  
15 marketplace. So, that does complicate the  
16 discussion.

17 As far as the criteria, I also agree.  
18 The one that I have a little bit more question about  
19 this novel protein one. I think that one we need  
20 to be a little more specific there.

21 The other one I want to also point out  
22 here is the criteria. For those of you who don't

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1 have the document in front of you, the second one.  
2 It says, "the ability of a variety to reproduce in  
3 a species-specific manner has to be maintained and  
4 technologies that restrict the germination  
5 capacity are refrained from".

6 The one that I immediately think of  
7 there is, what about the seedless watermelon? I  
8 don't know what to do with the seedless watermelon.  
9 That is a problem. We can live without seedless  
10 watermelons. You know, we all enjoy spitting  
11 watermelon seeds, at least when we are kids. So,  
12 maybe that is okay.

13 And then, finally, I want to say that  
14 I strongly support the fourth criteria in Zea's  
15 document. The exchange of genetic resources is  
16 encouraged, and any patenting -- and I would there  
17 really say "utility patenting" -- of living  
18 organisms that might have life gene sequences or  
19 breeding should be refrained from. So, I strongly  
20 support that.

21 With that, I will end and be happy to  
22 answer any questions.

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1                   MEMBER DE LIMA: Thank you to all of  
2 you.

3                   I want to open it up to questions from  
4 the Board.

5                   Zea?

6                   MEMBER SONNABEND: Okay. I'm sure  
7 most of the audience's eyes have glazed over and  
8 maybe my fellow Board members. But I find this all  
9 very fascinating.

10                  I'm going to address this first  
11 question to any of you who wishes to answer. But  
12 we received among the most critique from our public  
13 commenters about the first and the third criteria.  
14 We totally understand the third criteria, which is  
15 "Novel proteins must be prevented from being  
16 introduced," and that just has lack of clarity.  
17 So, I'm not asking about that.

18                  But the first criteria which it says,  
19 "The genome is respected as an invisible entity and  
20 the technical physical invasion into the plant  
21 genome is refrained from." And this was taken from  
22 IFOAM. We got, unexpectedly, a lot of critique

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1 about the word "invasion".

2 You know, the sentence construct to me  
3 is very European in nature, and I thought we would  
4 get other critique about the way it was worded, but  
5 people tended to single out the "invasion". A  
6 number of alternative words were suggested. But  
7 I am wondering if any of you have a reaction to that,  
8 like "invasion" implies something different from  
9 what we might want it to.

10 DR. TRACY: I actually made a comment  
11 as well, at least in my notes, not to you, about  
12 this.

13 But I would be inclined to get rid of  
14 this technical and physical part and be much more  
15 specific. I think mainly there you are talking  
16 about recombinant DNA technologies, basically.

17 DR. GOULD: Yes, I agree that it needs  
18 some greater clarity, and I think what Bill is  
19 talking about is one of the ways to do that. I  
20 don't think that internally in IFOAM discussions  
21 there has been a lot of discussion about this  
22 because it was created -- I have to say this

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1 predates my own history -- by people who seemed to  
2 implicitly understand what it was. And back when  
3 it was created, we weren't in this complex of the  
4 discussion. So, it is something we could revisit.

5 DR. HANSEN: Yes, and I also wonder if  
6 it was a language thing. I mean, I also believe  
7 maybe the term "invasion" is a bit strong, but maybe  
8 they meant some kind of insertion.

9 And I would say it is not just the  
10 recombinant DNA techniques. If it is genetic  
11 material from the same organism or if it is  
12 RNA -- so, I do like at the end where they pointed  
13 out that in vitro nucleic acid techniques are  
14 considered to be -- again, "invasion" has a value  
15 judgment. So, you could use some more neutral term  
16 and "insertion".

17 MEMBER DE LIMA: Thank you.

18 DR. HANSEN: Because part of the  
19 problem is we don't really have control over where  
20 these things are inserting. If you think about it  
21 from an ecological or evolutionary perspective,  
22 even when you're mixing big genomes or with

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1 radiation, these organisms which have co-evolved  
2 over long periods of time have ways to deal with  
3 a number of things.

4 And I think it is part of the hubris  
5 humans to come in and say, "Oh, we have this nice,  
6 precise molecular scissors. We'll know exactly  
7 what we're doing with it."

8 Just as an example, two weeks ago in  
9 Nature there was a publication of they decided one  
10 of the ways that they could try to cure HIV is to  
11 engineer T helper cells because that is how the  
12 virus invades the immune system. So, they  
13 engineered these T helper cells to have CRISPR in  
14 them that would recognize HIV, with the idea being,  
15 now when HIV tries to enter those T helper cells,  
16 it is immediately destroyed with this new  
17 CRISPR/Cas9. In the cell culture system they  
18 used, it took two weeks. Within two weeks the HIV  
19 had hijacked the CRISPR and had evolved a way around  
20 it.

21 So, I think what we have to realize is  
22 these genetic-engineering techniques, what they

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1 have been most useful for is in our basic  
2 understanding of how truly complicated genetics  
3 really is. And when people come in and think, oh,  
4 we have this new little mechanism that we can do  
5 exactly what we want, I think we find out that, no,  
6 there's actually other things happening as well,  
7 because we don't really understand this incredibly  
8 complicated system.

9 So, I think there needs to be a lot more  
10 respect for the integrity of these things and a lot  
11 less scientific hubris on our part. And organic  
12 has been very good at that, about trying to respect  
13 what are considered more natural systems. And so,  
14 it makes sense that you would want to refrain.

15 DR. GOULD: Zea, I don't know if there  
16 were specific suggestions in those comments. I  
17 haven't had a chance to read them yet. But one of  
18 the things that I do see in this, also, it says,  
19 "for example, through transmission of isolated  
20 DNA, RNA, and proteins". That would address what  
21 Bill was talking about. But one of the ways in  
22 which we could potentially improve this would be

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1 to get rid of the "for example" and actually make  
2 potentially a more exhaustive, specified list of  
3 the kinds of invasions we are talking about.

4 MEMBER DE LIMA: Dan?

5 MEMBER SEITZ: It seems to me that one  
6 of the challenges in public perception around GE  
7 is that often the benefits are immediate in terms  
8 of something that you can accomplish through  
9 genetic engineering. Whereas, the harm may become  
10 evident down the road.

11 And I think that is what you, Dr.  
12 Hansen, were just referring to, is that there may  
13 well be harm, but it could be not evident until the  
14 technology is well-integrated perhaps into  
15 people's practices, or whatever.

16 And I think where the precautionary  
17 principle comes from is this idea that, one, living  
18 systems aren't like inorganic systems where you can  
19 perhaps engineer more exactly; that there are  
20 always or there are likely to be these unintended  
21 consequences.

22 So, with that, considering Dr. Scorza's

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1 point, here is a technique that seems to address  
2 some very immediate harms, whether it is certain  
3 invasive pests, or whatever. It speeds up a  
4 process.

5 To a layperson, it may seem like this  
6 is something that would not necessarily have any  
7 disadvantages. But I am wondering from the  
8 perspective of the other panelists, looking at  
9 something like that, how much you reflect on the  
10 precautionary side of that? What may become  
11 evident down the road? Or how would you reflect  
12 on that?

13 DR. HANSEN: Yes, what I was going to  
14 say, very quickly, is one of the concerns that we  
15 have always had with genetic engineering, it is the  
16 unintended consequences, unless you have scanned  
17 that whole genome. What they have done is they,  
18 through the conventional GE techniques, they have  
19 inserted a gene. They didn't scan the rest of the  
20 genome to see what else got disrupted or anything  
21 else. They looked just at agronomic  
22 characteristics of the plums and other things.

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1 They didn't look in a more expansive way. And that  
2 is the concern that we would have, that you need  
3 to do that.

4 And I should also point out that what  
5 has made a lot of this far more difficult are  
6 utility patents. The fact that you can patent  
7 these things means that you control the research  
8 that gets done. So, that means, unlike with the  
9 old Plant Variety Protection Act where there were  
10 farmer and researcher exemptions, those are gone.  
11 So, there is no way for independent researchers to  
12 go out and ask hard, critical questions because  
13 they have to get approval from the company or the  
14 holder of these utility patents.

15 And now, you can get them on  
16 conventionally-bred plants and even organic ones.  
17 That should never, in my mind, should never be  
18 allowed. Those utility patents should not be  
19 allowed. Any plant or organism, it should be like  
20 the old Plant Variety Protection Act. There  
21 should be farmer/researcher exemptions, because  
22 that is the only way.

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1 I think with some of these things, if  
2 there is a lot of research done and these things  
3 turn out to fine, then, yes, they can be used more.  
4 But a lot of us have learned through hard  
5 experience, whether it is pesticides or all these  
6 other things that were brought on the market, and  
7 we were told that they were perfectly safe, only  
8 to find out years later that they weren't.

9 DR. SCORZA: I would like to address  
10 the question. The intention is not to just look  
11 at agronomic traits. The intention is any variety  
12 that is released through FaTrack will be entirely  
13 sequenced; the genome will be entirely sequenced.  
14 It is relatively cheap these days to do that, and  
15 that is what would be done.

16 So, I think we have a great concern  
17 about doing this right. We are not interested in  
18 profit out of all this work. We are not interested  
19 in anything but really doing what we are doing with  
20 conventional breeding, developing new varieties  
21 that have interesting traits, traits that are  
22 really needed by the growers and consumers. And

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1 we want to do it safe, very safely.

2 So, we already went through the talk  
3 with the regulatory people. What would be  
4 required to release a variety through FasTrack?  
5 And I will tell you that the FasTrack system is  
6 patented. Why is it patented? It is patented so  
7 that the U.S. Government, the USDA will have  
8 control over anybody who works with it, that we will  
9 make sure that our partners in that will have the  
10 rigorous study of the genome of anything they  
11 release, instead of just releasing the technology  
12 and, then, not really knowing how carefully users  
13 of the technology will check the plants that are  
14 eventually released.

15 So, I think we really are trying to  
16 address those concerns with this technology.  
17 Whether society thinks that we have done enough,  
18 you know, we can't predict. But we really are  
19 trying to do the best that we can to use this  
20 technology safely.

21 And again, we are not using FasTrack in  
22 all our breeding. We are using conventional

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1 breeding when it makes more sense. We are using  
2 FaTrack when it makes more sense.

3 So, again, it is a tool, and it is a tool  
4 that we want to use as safely and as carefully as  
5 possible.

6 DR. TRACY: I would also like to add the  
7 same kind of thing. When a variety is developed  
8 conventionally, totally classically  
9 conventionally, the same kind of problem can occur.

10 There is a famous example of a potato  
11 that had high, I believe -- well, it had a toxin  
12 in it, and it was only after people started eating  
13 a lot of it that it was found.

14 So, it can happen conventionally. I  
15 think the main thing that I think Ralph and I back  
16 when we started, we were taught as plant breeders  
17 that you tested the heck out of everything before  
18 you ever released it. Now I would say that  
19 often -- everything in life now goes so fast, that  
20 I'm not sure if something -- and I'm not talking  
21 about this case, but sometimes things don't get  
22 maybe tested as well as they should be. But we just

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1 have to do repeated testing, even of the  
2 conventional variety, to make sure it is safe.

3 DR. GOULD: Yes, I would just say that,  
4 you know, we are identifying a problem here, but  
5 there are other solutions as well. As I said  
6 before, one of the things that we need to do is to  
7 devote far more resources than we do to alternative  
8 methods of breeding.

9 I think that there is a myth, I have to  
10 say, that is promulgated -- I don't want to say  
11 "against us," but maybe as an organic sector, that  
12 somehow we have to abide by this idea that  
13 everything must go faster. With all due respect,  
14 I really appreciate the concerns that Ralph raises  
15 about these diseases that are coming on and we need  
16 to have these problems. So, we can't race 20 years  
17 into the future now, but we can start to initiate  
18 more kinds of alternative breeding techniques and  
19 a greater frequency of those techniques at any one  
20 time, to try to come to some better solutions.

21 But the idea that somehow organic needs  
22 to have all of these new techniques I think is also

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1 a little bit of myth. If we actually had more  
2 organic and sustainable production, we would be  
3 solving a lot of the world's problems anyway. So,  
4 the problem is kind of couched in the wrong  
5 paradigm.

6 I will be just a little hyperbolic here.  
7 The idea that we need to rush so much is almost like  
8 saying that you should be applying super-phosphate  
9 instead of rock phosphate. And we have tried  
10 techniques that work and we need to make those  
11 better using the paradigm and the principles that  
12 we know that have worked.

13 MEMBER DE LIMA: Francis?

14 MEMBER THICKE: I was intrigued by  
15 something Dr. Tracy said about how the utility  
16 patent should be refrained from. Since your  
17 Department, you're at a land grant university, how  
18 widely is that shared in the land grant system?  
19 Are you an outlier?

20 DR. TRACY: Frequently.

21 (Laughter.)

22 This is something that I have been

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1 really, as the people in our tech transfer agency  
2 would agree, fighting for years. And I would  
3 distinguish patenting a process like FasTrack from  
4 actually patenting a cultivar, a utility patenting  
5 cultivar.

6 We have other mechanisms, including  
7 PVP, including plant patents, to protect crop  
8 cultivars. Those mechanism actually keep the  
9 genes in the public sector, so that new varieties  
10 can be developed.

11 The problem with the utility patent,  
12 among the other things that Michael mentioned,  
13 including preventing actual research on the  
14 product, the other problem with the utility patent  
15 is that the genes are not available for breeding  
16 in the public sector or for any sector. So, the  
17 genes are tied up.

18 Whereas, the traditional methods, the  
19 PVP, which I'm 100 percent fine with, plant patent,  
20 those mechanisms actually allow the genes to be  
21 immediately available or should, according to the  
22 law, should be immediately available.

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1                   And we actually are having -- "we," a  
2                   group of us -- are putting on an IPR for public plant  
3                   breeding workshop or summit in Raleigh, North  
4                   Carolina, August 13th. The purpose is really to  
5                   try to get an idea of best practices in the public  
6                   sector, so that when a young person has to argue  
7                   with their tech transfer agency, they might have  
8                   some information that they can go forward with.

9                   MEMBER DE LIMA: Emily?

10                  MEMBER OAKLEY: We received a couple of  
11                  comments from livestock folks about the embryo  
12                  transfer in animals. And I was wondering if some  
13                  of you could comment on that, because they want us  
14                  to remove it as an excluded method.

15                  DR. GOULD: I don't know how much I can  
16                  say about it, but I think consensus is pretty clear  
17                  that we should not do that.

18                  MEMBER DE LIMA: Tom? Then, Zea.

19                  MEMBER SONNABEND: One thing --

20                  VICE CHAIR CHAPMAN: Wait.

21                  MEMBER SONNABEND: What?

22                  MEMBER DE LIMA: Tom? Then, Zea.

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1                   VICE CHAIR CHAPMAN:  It's all right,  
2                   Zea.

3                   Dr. Tracy, you touched on this a bit,  
4                   but do we need to define traditional plant  
5                   breeding?  Is it clear to you on the panel that the  
6                   practices used in traditional plant breeding are  
7                   allowed under these principles, criteria, and  
8                   definitions that we have here as they are now?

9                   DR. TRACY:  I think we do need to get  
10                  a better definition, and I know there's been many  
11                  people, both in the organic community and the  
12                  conventional plant breeding community, that have  
13                  kind of resisted that.  But I do think that a  
14                  document like this says that we do need to become  
15                  more specific.

16                  I think what is interesting about the  
17                  document here or the technologies here -- and this  
18                  would be exactly the same for FaTrack as  
19                  well -- well, FaTrack is a little different.  That  
20                  speeds things up.  But a lot of these technologies  
21                  simply introduce variation.  And then, what you do  
22                  with the variation is kind of the classical

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1 plant-breeding part. And even the big companies  
2 like Monsanto and DuPont, they do a lot of classical  
3 plant breeding, but their variation may come from  
4 transgenes or other places.

5 So, it is really where the  
6 variation -- well, in part, this document is about  
7 where the variation comes from. And then,  
8 classical or plant breeding kicks in after that.  
9 But I do think we probably need to tackle that.

10 DR. SCORZA: May I say something about  
11 that? I think the word "traditional" or  
12 "classical," I really don't know how far you go back  
13 with that. Because I know in fruit trees and  
14 grapevines, they have been for years doing, for  
15 example, embryo rescue, for years most of the  
16 early-ripening peaches were all developed through  
17 embryo rescue. So, is that traditional? Is that  
18 conventional?

19 It is almost like you have to go to some  
20 crops and say, how far do you want to go back to  
21 say what's traditional in their crop, 100 years,  
22 50 years, 500 years? So, I think that is a question

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1 I have in my mind. That word "traditional," how  
2 far back does it go? So, that is something I think  
3 could be considered. I don't know if you could do  
4 it crop by crop, but, certainly, there is some way  
5 that -- some breeder is going to come to you and  
6 say, "But this is traditional. We've been doing  
7 this for 100 years." In another crop, no, they  
8 haven't been doing that. So, it is something to  
9 consider.

10 DR. GOULD: When something withstands  
11 the test of time or the precautionary principle is,  
12 I guess, a debatable question, one we probably need  
13 to still come to grips with.

14 But our original GMO position  
15 paper -- and it was carried over, actually, into  
16 the current redraft, which is about to be kind of  
17 approved, I guess, or voted on, -- insists on  
18 precise definitions for what is genetic  
19 engineering, what is a GMO. We need to, I think,  
20 update those traditional as not, as we have just  
21 seen.

22 Actually, our original position paper

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1 said that -- it called modern biotechnology a  
2 non-precise term because it wasn't defined. So,  
3 if it is defined precisely, I don't know that it  
4 necessarily matters as long as it really is clear.  
5 So, we may not be, at least in the near future, able  
6 to achieve the exact same definitions or which  
7 terms are defined here in the United States versus  
8 Europe. Maybe at the Codex level we will be able  
9 to do that. But that is a long process and, as I  
10 said, this whole technology is moving way faster  
11 than that. So, as long as we are all clear in each  
12 of those contexts with a precise definition, I  
13 think we are okay. But that is something which  
14 needs to be fixed here.

15 DR. TRACY: I just want to follow up.  
16 One other thing on that is that plant breeding  
17 actually includes lots of things, and there's kind  
18 of a whole area of plant-breeding research,  
19 genomics and research on germplasm.

20 So, to really be clear about what we are  
21 largely talking about here is I have really kind  
22 of gone to the topic of cultivar development.

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1 We're actually trying to develop a new variety as  
2 opposed to doing some genetic manipulation. To  
3 learn more about genome as an academic researcher,  
4 I do that, but that is different from actually  
5 developing new varieties.

6 MEMBER SONNABEND: Actually, Tom asked  
7 my exact question.

8 VICE CHAIR CHAPMAN: I have a follow-up  
9 question or maybe just a clarification. But I  
10 think, to build on what you said, so you guys would  
11 consider yourselves experts in plant breeding.  
12 But, with these definitions being requests  
13 encompassing all organisms, I took it that you guys  
14 weren't as comfortable to speak across all of those  
15 other organisms, is that correct?

16 DR. HANSEN: Well, I think, actually,  
17 those terms can be used because we did this at the  
18 Codex process from microorganisms to animals,  
19 including fish and invertebrates all the way, and  
20 then, plants as well.

21 So, I do think that a lot of the  
22 terminology you can use and extend it, although

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1 when you get into, for example, insects, it raises  
2 serious questions, like these diamondback moths.  
3 Even though they are engineered and it would be  
4 clear that they are not part of organic, if they  
5 were released on any kind of large scale in upstate  
6 New York, the way they worked is they die in the  
7 early instars.

8 So, that means if they are out there,  
9 there can be completely organically-raised  
10 broccoli and cold crops since you have these early  
11 instar engineered larvae in them that are dead now.  
12 Are people going to want to eat that? What is that  
13 going to do? Those are real questions that have  
14 to be grappled with, once you get out of plants and  
15 you start to open this whole field up, particularly  
16 for insects, because they can move all over the  
17 place.

18 DR. TRACY: The other thing I would  
19 say -- and I'm not an expert on this, although I  
20 took a course in it a long time ago -- but bacteria  
21 especially are completely different kinds of  
22 organisms, and they do different things. Their

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1 genetics are completely different. So, I think  
2 you would really need to get a microbial geneticist  
3 involved in this because I don't think things  
4 directly correspond.

5 But, as far as you carry it, it is  
6 basically everything but bacteria and viruses. I  
7 think most of this is probably similar.

8 DR. HANSEN: Actually, fungi, too,  
9 because fungi get very strange because they don't  
10 have cell walls. Yes, it is very different.

11 DR. GOULD: I think we are going to have  
12 to try to make the criteria as broadly applicable  
13 as possible because there are going to be new  
14 combinations and new techniques coming. So, I  
15 don't know that we will get to the end-all, but I  
16 think that the criteria have to be considered with  
17 all the species together. And what we have here  
18 is a good start.

19 I don't know that there is going to be  
20 necessarily too many other kinds of specific  
21 details that we are going to miss that are going  
22 to eliminate one phylum or another or kingdom or

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1 another.

2 MEMBER DE LIMA: Harriet?

3 MEMBER BEHAR: One of my concerns,  
4 also, is just we are talking about biology.  
5 Organisms tend to mutate on their own. So, if we  
6 have genetically-engineered something, will it not  
7 mutate into something that we didn't plan? And  
8 when we talk about microorganisms and bacteria and  
9 insects -- you know, I'm not a geneticist; I don't  
10 have a triple PhD, but basic high school biology  
11 tells me that these are organisms that tend to  
12 mutate rapidly because there are many generations.  
13 So, I think that is another issue that we have here.  
14 Or am I wrong?

15 DR. TRACY: Biology is all about  
16 reproduction and finding ways to reproduce. Some  
17 of the human hubris that we talk about is, "Oh, we  
18 can prevent that from doing that." As I said at  
19 lunchtime today, every time there is a meiosis,  
20 which is the formation of a sex gamete, I consider  
21 every time there is a meiosis, that is a new genetic  
22 experiment.

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1           Somebody gave me, actually, a statistic  
2 recently that every base pair in the maize genome  
3 during the summertime in North America is mutated,  
4 every base pair is mutated 400 times. So, they are  
5 trying to figure out a way to get around whatever  
6 we put in front of them, and I think it is really  
7 amazing.

8           So, yes, I think the hubris where we  
9 say, "Oh, we can contain" this or that is often  
10 proved to be wrong.

11           DR. GOULD: Harriet, I didn't  
12 completely -- I mean, I agree with you, but I didn't  
13 understand. Is your question heading somewhere or  
14 looking for something in particular out of --

15           MEMBER BEHAR: Well, I wasn't sure, and  
16 we already have all these genetically-engineered  
17 organisms, crops and some bacteria, yeasts. But  
18 I guess, because of patenting, we are not tracking  
19 if there are mutations out there.

20           We know, for instance, in Roundup-ready  
21 corn and soybeans, we know that the weeds have  
22 mutated to become resistant to the herbicide, but

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1 we don't know if there has been any mutation to  
2 those plants. I mean, they are not stable, either.  
3 I mean, we don't know how we have manipulated to  
4 the genes. So, further mutations, where that is  
5 going to take us?

6 DR. GOULD: I agree. I mean, there is  
7 something I read years ago which kind of forwarded  
8 the premises that, when you start disturbing the  
9 genome like that and destabilizing it,  
10 essentially, you give it more of an impetus to  
11 destabilize. That makes intuitive sense to me. I  
12 don't know if it is absolutely true.

13 It is just kind of highlights, I  
14 suppose, the severity and the complexity of the  
15 problem that we are facing. It seems to me that  
16 one of the things that we are trying to do is put  
17 some kind of filter on that and some kind of  
18 limitations on what we would allow ourselves as  
19 humans to do, as opposed to what we will let Nature  
20 do. You know, what Nature is going to do now is  
21 really beyond our control.

22 DR. TRACY: Yes, the other thing with

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1 your specific example is that, essentially, on  
2 those 90 million acres of corn and 90 millions acres  
3 of soybeans in the Midwest they actually don't  
4 leave any reproductive units. They all,  
5 basically, are swept off the landscape and fed to  
6 somebody, for the most part.

7 But an interesting case, and what you  
8 are raising, is transgenic alfalfa. I mean, that  
9 is a perennial. It is out on the landscape. It  
10 is reproducing. It can be clonally-reproduced.  
11 It can be sexually-reproduced. And that will be  
12 an interesting evolutionary experiment.

13 DR. SCORZA: Yes, I would like to take  
14 off a little bit on what Bill said here. We are  
15 in a sea of constant genetic mixing and genetic  
16 change. You know, it has been going on for eons  
17 and we are still here and the planet is still here,  
18 and the trees are still here and the plants. So,  
19 I mean, Nature does have control also. Even I  
20 think of some of the genetically-engineered crops,  
21 we haven't seen them take over the planet.

22 I mean, I think we don't want to panic

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1 about all this because we have been breeding plants  
2 for hundreds -- in fact, maybe even longer than  
3 that. Teosinte, you know, we came from teosinte  
4 to maize now. Maize hasn't taken over the planet.

5 So, I think we have to have a little bit  
6 of faith that Nature does exercise control over  
7 these things. Usually, mutated species have  
8 negative aspects to the mutation. The mutations  
9 are generally negative, and they don't last in the  
10 environment.

11 So, let's sort of take it in the context  
12 of what our experience has been over the millennia  
13 that we have had all these genetic mixing and  
14 changes going on naturally through natural  
15 radiation, through natural mutations, et cetera,  
16 et cetera.

17 DR. HANSEN: Well, I would just add to  
18 that, though, my take on it is slightly different;  
19 that, yes, these things have happened in Nature and  
20 there's ways to select against them. But there are  
21 so many examples. I can think of hundreds of  
22 chemicals and other things that were considered

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1 perfectly benign at the time, that we then release,  
2 and now we have -- for example, we have global  
3 programs to deal with persistent organic  
4 pollutants that were all developed originally by  
5 humans thinking that they knew better and that  
6 these were perfectly safe compounds. We do this  
7 over and over again.

8 And I would just argue that it is one  
9 thing if Nature produces something that is  
10 damaging. To try to mitigate those aspects. It  
11 is something fundamentally different than when a  
12 human does it and is trying to make profit or do  
13 something with it. There is an intentionality  
14 there that there isn't necessarily there in Nature.  
15 That is why I think we have to be much more careful  
16 about the human intervention in things, because it  
17 is something fundamentally different than when  
18 Nature is doing it.

19 DR. GOULD: Right. We are certainly  
20 helping corn take over the planet.

21 But one of the things that I think is  
22 important for this body, and I understand the need

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1 to come to some conclusion on this proposal in the  
2 near future, to get us to someplace where we can  
3 take some action. I think that is really  
4 important, but we have to understand this is still  
5 in constant flux. So, even when this proposal is  
6 passed and rules are enacted for it, that is not  
7 the end of the story by a long shot. This body is  
8 probably going to have to retake up or continue the  
9 discussion in whatever the next forward-thinking  
10 phase of it is, depending on how the development  
11 and the presence of these new varieties affect us.

12 MEMBER DE LIMA: Tom?

13 VICE CHAIR CHAPMAN: That was a good  
14 segue for my question. So, rules, ultimately,  
15 we're a standards Board. We make recommendations  
16 for regulations. From that perspective, how do we  
17 grapple with the concept of prohibiting practices  
18 that are not detectable through testing? Are  
19 there consequences, potentially, that we need to  
20 be thinking about?

21 DR. GOULD: Yes, there are  
22 consequences, as I said, especially if the National

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1 Organic Program is left to itself to have to deal  
2 with the fact that it might not be able to detect  
3 things and somehow be responsible for things that  
4 are trespassed on it. And if there is not enough  
5 adequate regulatory support for the people or the  
6 people who are producing these organisms or  
7 releasing these organisms, it may be seen as  
8 somehow beyond the purview or the power of the  
9 National Organic Standards Board or the National  
10 Organic Program to influence the way in which the  
11 introduction of these new strains is made.

12 But I don't know how we are going to get  
13 beyond some of that responsibility. It can't be  
14 organic farmers. It can't be organic certifiers  
15 having to do certain things. There may be a  
16 certain amount of diligence that can be done, but  
17 the idea somehow that we don't use those things and,  
18 therefore, it is not our problem, we know that it  
19 doesn't completely work.

20 DR. HANSEN: Yes, and what I would say  
21 is I question whether those things will ever truly  
22 be untraceable because we live in a free market

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1 system. And if somebody is going to develop a new  
2 product that they are going to sell and there is  
3 no way to detect it, they will have to have some  
4 way that they can detect it themselves to make sure  
5 that others aren't taking their property from them.

6 And I would point out, unless you want  
7 to spend lots of money, you could make some of the  
8 same arguments about organic right now. How can  
9 you tell whether someone has used a synthetic  
10 fertilizer unless you want to look at the isotope  
11 ratios in the harvested plants? But there are  
12 certain other things that you do via traceability  
13 mechanisms.

14 And I think the same could be done for  
15 many of these technologies because we will  
16 ultimately know where they are going to come from  
17 because somebody is going to be selling them and  
18 releasing them, and they are going to want to make  
19 sure that they get compensated for their products.  
20 If it is a product that nobody can detect any  
21 changes in it, then how would they prevent any of  
22 their competitors from just ripping off their own

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1 product?

2 So, I think as long as we live in the  
3 market that we live in now, this free market, there  
4 are going to be ways to detect these things because  
5 it is in the interest of the people that developed  
6 them. If they want to, quote, "preserve" their  
7 intellectual and other property, there will be ways  
8 that they can detect them.

9 DR. GOULD: If I can add to that, I  
10 would say I would generally agree with that  
11 ingenuity in the market and the availability of  
12 things like sequencing technologies and  
13 supercomputing, and that sort of thing, will make  
14 it possible perhaps to identify species relatively  
15 quickly as to the differences between them. Now  
16 whether we can trace that to a specifically-induced  
17 mutation or one that naturally occurred is perhaps  
18 another story.

19 But one of the things that maybe I  
20 slightly would either disagree with or add to what  
21 Michael was saying is that it seems like what you  
22 were just talking about uses sort of the old model

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1 that only a handful entities are going to have this  
2 technology and be able to release these kinds of  
3 organisms.

4 From my view, I see that changing to  
5 where it becomes far more possible for smaller  
6 entities to be able to -- you and I could buy  
7 sequencing technology and manipulation technology  
8 now. It is relatively cheap. It is relatively  
9 available.

10 If you know how to use it, there can be  
11 a lot smaller entities being able to start  
12 manipulating seeds or varieties and selling them  
13 or releasing them or trading them. And so, in that  
14 sense, that is going to be a disruption that we are  
15 not used to, and we don't have the regulations in  
16 place about who can do what in general.

17 I mean, it is just like when you get a  
18 license to -- who knows? -- you know, cut a tree  
19 down on your site. You've got to get a license from  
20 the city to do it. But we don't have that level  
21 of regulation because the technology is moving far  
22 faster than regulation is able to keep up with.

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1                   MEMBER DE LIMA: All right. We are  
2 going to do one last question from Emily.

3                   MEMBER OAKLEY: Well, on that note, in  
4 terms of the traceability and detectability, are  
5 there any methods that we have proposed as excluded  
6 now that you think would lead to immediate or  
7 short-term enforcement issues?

8                   DR. SCORZA: You mean in technologies  
9 that are not excluded or would not be excluded,  
10 could they be detected?

11                  MEMBER OAKLEY: Well, in this document  
12 in terms of the proposed excluded methods, if we  
13 were to go forward with this document shortly or  
14 within the short-term, are there any methods that  
15 are going to provide enforcement challenges?

16                  DR. TRACY: Well, yes. I mean, this  
17 document has the FaTrack. No, the FaTrack is  
18 not. But the CRISPRs and the targeted genetic  
19 modifications are all listed as, yes, excluded.  
20 And those are precisely the ones we're talking  
21 about. There are other ones that probably would  
22 fall in the same place, but it will be the

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1 gene-editing ones that will be the most problematic  
2 because they will be the most widely-used.

3 DR. SCORZA: But it seems like the  
4 organic industry could question a new product, a  
5 company, and say, "How did you develop this?" If  
6 they lied about it, that would be legally a very  
7 tough decision to make.

8 So, I think just the business practices  
9 or going to a business and saying, "How did you  
10 develop this new variety?", and they would have to  
11 make the decision, are we going to lie about this?  
12 So, I think human interaction and human trust is  
13 going to be part of this. We are talking about  
14 morality, and those enter in. We can't assume that  
15 all these companies are going to be immoral and do  
16 things that are going to hurt their customers or  
17 themselves.

18 So, I think part of that is going to come  
19 into, I think, the equation of just ask them, "How  
20 was this developed?" And that perhaps could --

21 DR. GOULD: Well, that may be true, but  
22 I can imagine the certifiers in the room are

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1 potentially really squirming right now, thinking  
2 about the kinds of diligence that they may need to  
3 do with somewhat of an attitude of futility in a  
4 sense. Because even just getting a non-Big-Three  
5 declaration on a flavor sometimes is just pulling  
6 teeth or something which is a bit of a rubberstamp  
7 kind of thing.

8 And so, I think we need to think very  
9 carefully about where we are putting the onus of  
10 responsibility here.

11 DR. HANSEN: And I would, finally, say  
12 I do think sequencing technology, if it becomes  
13 faster and cheaper, I think there will be ways, even  
14 with stuff that is precisely edited, that if you  
15 have enough genomes to scan, you will be able to  
16 detect that something has happened. Because you  
17 can sort of look and see what has happened  
18 conventionally versus these manipulated ones.  
19 And I think you will see it will be very easy to  
20 see differences.

21 DR. TRACY: Yes, and just to give  
22 another example, but a totally legal one, if, as

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1 some of us would like to see, utility-patented crop  
2 cultivars are excluded, that would mean that when  
3 the information for the certifier about where the  
4 seed came from, it would have to have a declaration  
5 on that seed certificate that it was a  
6 non-utility-patented item. And that would also  
7 really mean that all of the seed catalogs should  
8 actually have that as well. So, that is really  
9 kind of the same marketplace thing as opposed to  
10 a biological aspect.

11 MEMBER DE LIMA: So, I want to give each  
12 of you a chance -- we are running a little  
13 behind -- so about a minute to make any closing  
14 remarks you might have, starting with Dr. Gould.

15 DR. GOULD: I guess thanks again for  
16 allowing us to be part of this.

17 What I would say is I would be very  
18 interested in helping facilitate any kind of  
19 cross-pollination of this discussion with things  
20 on the other side of the Atlantic or globally within  
21 IFOAM.

22 And the other statement that I would

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1 make is I would highly encourage USDA and people  
2 in the National Organic Program to do whatever they  
3 can to try to share the burden of addressing the  
4 complexity of this outside of this group and just  
5 the program itself.

6 DR. HANSEN: I think I have said most  
7 of the things I would like to say. But I would like  
8 to echo what you said, that I would urge USDA to  
9 be open in this whole process and try to get as many  
10 views as you can from the interested stakeholders.

11 And I would be more than willing to help  
12 look at anything that is done in the future on this,  
13 because I do think you're going to have to deal with  
14 a lot of technical details, and it should all be  
15 looked at.

16 And I wish you the best of work.

17 DR. TRACY: Yes, and I would basically  
18 echo that.

19 Thank you for having me here. It is a  
20 very interesting discussion.

21 I would offer to Zea and her  
22 Subcommittee help with this document. I've got a

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1 lot of bright, young grad students who will have  
2 opinions and ideas. And we have some other folks  
3 in Wisconsin who are interested in this. So, just  
4 keep us in mind when you need something.

5 DR. SCORZA: I would like to say that  
6 I really appreciate being here, to be able to listen  
7 to the conversation and to meet everyone.

8 I think the breeders in general are all  
9 trying to develop products that are going to  
10 improve agriculture and improve the health and  
11 nutrition of the consumers. I think that is  
12 generally a goal of many breeding programs.

13 And I think the ability to discuss your  
14 needs, your philosophy on developing new crops with  
15 people who are looking at it from a different point  
16 of view is very, very important. So, I have found  
17 this time here very enlightening, very  
18 interesting.

19 And I think that you would find that  
20 more of these discussions will get us understanding  
21 each other more and moving in directions that we  
22 are both happy with. Sometimes we will go one way

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1 and others will go another way, but I think knowing  
2 where we all stand on things is very helpful.

3 And I am really glad to have been  
4 invited here, and I appreciate the time. Thank  
5 you.

6 MEMBER DE LIMA: Well, thank you. We  
7 really appreciate all of you coming out and taking  
8 the time to spend with us, help us on this  
9 complicated issue.

10 Tracy?

11 (Applause.)

12 CHAIR FAVRE: Thank you, gentlemen.

13 Okay. We are going to take a 15-minute  
14 break. Then, we will come back here and begin the  
15 Materials Subcommittee discussions.

16 (Whereupon, the foregoing matter went off the record at 3:38 p.m. and  
17 went back on the record at 3:58 p.m.)

18 CHAIR FAVRE: Thanks, everybody, for coming back.

19 That was quite intellectually dense and meaty information and maybe  
20 challenging information after lunch. So, we appreciate your sticking with us. Fascinating  
21 information and it just points out how incredibly complex these issues are going to be, as we  
22 try to tackle them.

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1 So, first up on our agenda after the break is the Materials Subcommittee.

2 I am going to turn that over to Lisa de Lima.

3 Lisa?

4 MEMBER DE LIMA: All right. So, we have got three topics, one  
5 proposal and two discussion documents. We are going to start with the excluded methods  
6 terminology proposal. I am going to hand it over to Zea.

7 MEMBER SONNABEND: Thank you, Lisa.

8 So, actually, all three documents are  
9 mine, and it is impossible to talk about the  
10 proposal really separating from the discussion  
11 document. So, we are going to cover aspects of  
12 each one.

13 We realized when we started this  
14 project, which is approximately three years ago  
15 now, that we had to come grips with the definition  
16 of "excluded methods" because it was quite, well,  
17 effective as far as it has gone so far in the rule.  
18 A lot of the terms in it were becoming outdated.

19 And we couldn't have individual  
20 discussions about all of the different topics that  
21 came before us, which have included in the past the  
22 animal vaccines and the cell fusion technique used

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1 in brassicas. Discussing these technique one by  
2 one just didn't make sense unless we had an overall  
3 policy about excluded methods and what they meant  
4 and what criteria we are using to exclude them.

5 So, we started the process of examining  
6 the different terms in the definition and outside  
7 the definition to get a grip on what was out there  
8 and what we needed to do. After two previous  
9 versions of a discussion document, both of which  
10 were posted twice, you know, covering a period of  
11 two years, we have proceeded to the proposal stage.

12 This premise is somewhat based on the  
13 fact that the rest of the USDA we feel, not to  
14 mention the other agencies, is doing an inadequate  
15 job of regulating GMOs from an organic point of  
16 view. And so, if they are not going to regulate  
17 them properly, we are going to have to regulate them  
18 ourselves. So, that is pretty much what we are  
19 trying to do.

20 Before I get in, I am going to just  
21 briefly talk about the contents of the document and  
22 the public comment we have received, and open it

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1 up to questions and comments from the Board.

2 I will say, at the outset of this, that  
3 we have decided we are not going to vote this  
4 proposal today. We will be sending it back to the  
5 Subcommittee because we appreciate the public  
6 comments we got that it is not quite ready for  
7 primetime.

8 Along with that, I will say that, while  
9 I do think the definitions are pretty close to being  
10 ready and a few suggestions were made for tweaks  
11 or elaborations which we don't consider  
12 substantive, the proposal doesn't hang together  
13 until we have the definitions and criteria in  
14 place, because the definitions and criteria are  
15 what set the framework for, then, looking at the  
16 individual terminology.

17 So, this was designed -- and I think  
18 some people somewhat misinterpreted this, and this  
19 was partially our fault because we made a tactical  
20 error -- but the proposal was only meant to cover  
21 definitions, criteria, and then, those segments of  
22 the terminology which was clear fell under excluded

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1 methods by those definitions and criteria.

2 Then, there was another section which  
3 we put as TBD in the proposal, which are ones that  
4 we really needed to discuss in more detail later.  
5 And those ones were in the discussion document.

6 We probably shouldn't have put them in  
7 the proposal to start with and only kept them in  
8 the discussion document because I feel some people  
9 didn't understand and said that we had to wait until  
10 the whole chart was ready to go before we would put  
11 the proposal forward. And that was never the  
12 intent.

13 It is intended to be flexible. I would  
14 imagine that, for the next 10 years, some of those  
15 terms and additional ones that are suggested will  
16 still be being evaluated, but it is set up so that,  
17 once we have a structure, each time a new technique  
18 comes up we will be able to take it up with a clear  
19 set of benchmarks that we are measuring things  
20 against.

21 Okay. So, the definitions is the first  
22 section. As I mentioned, most of the comments were

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1 to, for instance, elaborate by things that were  
2 already in the excluded methods definition, like  
3 "does not occur under natural conditions". I had  
4 taken it for granted that, because that is in the  
5 excluded methods, we didn't need to repeat it for  
6 an individual definition. We will take another  
7 look at that when we do send it back to Committee.

8 A few people were concerned that Codex  
9 versus the Cartagena Protocol. That really ends  
10 up just being a footnote rather than a substantive  
11 change. And there is, apparently, a one- or  
12 two-word difference between the definition we put  
13 out there which we borrowed from the NOP's own memo  
14 on cell fusion. And so, it may have had the  
15 incorrect word in there, but we will take that back  
16 and make the correct wording and the reference to  
17 Codex.

18 And then, some people wanted the  
19 definitions in a different order. And one or two  
20 people wanted us to get rid of the definition of  
21 "genetic engineering" altogether, which I'm not  
22 inclined to do because it is so in the vernacular

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1 in so many of our other posted proposals, that I  
2 feel like anything that is in that vernacular  
3 really should be defined, so we know what we are  
4 talking about.

5 We also got a bit of input on  
6 elaborating on the non-GMO definition, which I  
7 think is good input, to reemphasize the process  
8 phased nature of what we do, and we can improve that  
9 when we take it back.

10 Then, finally, we got several comments  
11 about defining the clause in the law "traditional  
12 breeding," which some often call "classical  
13 breeding". And that seems like a very viable  
14 concern, and we will take a look at that to see if  
15 we are able to come up with that definition.

16 However, that is the kind of thing that,  
17 if it has to go beyond the fall, the next version,  
18 that we can continue working on it and come back  
19 later with more definitions, more criteria if we  
20 want, more evaluation.

21 Okay. Moving to the principles and  
22 criteria, everyone really liked the principles.

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1 One or two people wanted to wordsmith what it says  
2 in the Policy and Procedures Manual, and I'm going  
3 to leave that to the Policy and Procedures  
4 Committee because they were really minor, and I  
5 don't feel like that is necessary to do. And it  
6 needs to be done there first before it would come  
7 into this document.

8 The IFOAM principles seemed to be  
9 unanimately acceptable to everyone, which is good  
10 because I am sure they spent many years and on a  
11 worldwide basis coming up with those principles.

12 And then, the criteria is the area that  
13 we need to do the most work. But, still, we had  
14 general support for the overall direction of the  
15 criteria. We had some wording suggestions. We  
16 will take a look at particularly the third  
17 criteria, which the novel proteins concept was not  
18 well-understood and needs to be clarified or  
19 perhaps moved to discussion, where it will be a  
20 later criteria. And the others, we can examine  
21 some wording changes to make everyone feel that  
22 they are a bit more complete.

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1                   Now I will say, in case it wasn't  
2 completely clear from what David Gould said about  
3 alignment with IFOAM, in this document we have to  
4 balance the need for doing our own wordsmithing on  
5 everything to trying to make our language  
6 compatible with international norms and the  
7 international process.

8                   That does not mean that we are going to  
9 wait for IFOAM to approve their new language at the  
10 end of the year, but it does mean that some of your  
11 changes which are suggested that will change  
12 otherwise internationally-accepted language we  
13 may not adopt because we feel that it is more  
14 important to be in alignment with the international  
15 community on this. We just will have to take a look  
16 at all of that.

17                   Okay. So, that handles the principles  
18 and criteria in terms of what we will send back and  
19 take a look at. As far as the terminology chart  
20 today, I already mentioned that the TBD ones were  
21 not really meant to go into the proposal at this  
22 point.

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1           You know, each one of those TBD ones  
2           could have a whole paper on its own because many  
3           of them have more than one way to do the same thing,  
4           some of which might be genetic engineering and some  
5           of which might not. They have different  
6           applications, as we talked about, in animals,  
7           plants, insects, et cetera. And then, there is the  
8           whole issue of enforcement, which in some of those  
9           is quite problematic.

10           And so, those are going to be staying  
11           as TBD in our next version. They will be in just  
12           a discussion document and not in the proposal.

13           The only ones on the terminology chart  
14           that we got significant comment against including  
15           were the embryo transfer in animals. And so, we  
16           will also move that into the TBD category. We  
17           didn't do a good enough job explaining it or the  
18           reasoning why. I tried my best to encompass most  
19           of the things, but I couldn't do 100-percent  
20           thorough job on that, and that was one we rushed  
21           a bit.

22           And then, we did hear some input that

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1 we will have to weigh about possible uses of CRISPR.  
2 If we decide to keep it on the chart, we will. If  
3 we decide to move it off, it will move into TBD and  
4 there will be another discussion document to  
5 solicit more input.

6 Okay. So, with that, I will open it up  
7 for questions or comments from the Board.

8 CHAIR FAVRE: Jean?

9 MEMBER RICHARDSON: It's hard to know  
10 really what to say about this, she says. I'm glad  
11 I don't have to pass an exam on cytology or  
12 cytogenetics this afternoon.

13 But I have been sitting in on the  
14 Materials Subcommittee as they have been going  
15 through the incredible hard work in putting this  
16 together. So, really, the main thing that I have  
17 to say is that I think that we have a 99-percent  
18 ready document for us to be able to vote on. Sorry  
19 we couldn't vote on it today, but, hopefully, we  
20 have something that we can vote on before Zea's term  
21 is up on the Board.

22 Zea, you have done an absolutely

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1       astounding job, and everybody really appreciates  
2       it.    And the panel just really added to this  
3       document, and to the hear the way in which it is  
4       widely accepted in the scientific community is just  
5       really impressive.   So, thank you.

6                   VICE CHAIR CHAPMAN:    Are there any  
7       thoughts by members of the NOSB about how we can  
8       get that technical -- there was a call for a  
9       technical panel and stuff, and you had a great  
10      response to that, saying, "Tell me how I can do it  
11      in the next six months."

12                   MEMBER SONNABEND:    Yes.   Well, I was  
13      actually planning to mention that, also.   We do not  
14      have the ability to do anything like an official  
15      task force in a six-month period, if maybe at all.  
16      So, I would like to tell the members of the  
17      community, as it stands, I am happy to work with  
18      anyone who wants to provide input on this, but I  
19      do not have the ability to organize a scientific  
20      group or conduct conference calls or anything like  
21      that.   But if any industry or NGO groups or anyone  
22      wants to organize this, I am happy to participate.

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1           And the way that we work on documents  
2           is we have to meet our Subcommittee deadlines, but  
3           this reverts back to me to make the changes. And  
4           I will submit it to the Subcommittee, which I have  
5           to do probably by sometime in mid-July. Until that  
6           time, until we turn it back over to the Subcommittee  
7           to rule, I can work with any task force or group  
8           that people want to organize, but I am relying on  
9           you to organize. Or you could give me individual  
10          feedback. But I would be happy to have a group  
11          organized in some fashion. And you heard our  
12          panelists, many of whom said they would like to  
13          participate in that also.

14                    Anyone else?

15                    A-dae?

16                    MEMBER ROMERO-BRIONES: So, we had  
17                    several comments that suggested we include an  
18                    animal portion in this document. Is it possible  
19                    for us to actually do a scan of the document to see  
20                    how that may differ from what we have now?

21                    MEMBER SONNABEND: Yes, we fully  
22                    intend to do that and have intended to do it right

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1 along. And a few of the things are specifically  
2 on there because of animals, because of the vaccine  
3 situation. But other of the criteria we borrowed  
4 from plant-breeding criteria, so they only say  
5 "plants". But we will go through it and we will  
6 make sure that it is universally-applied.

7 VICE CHAIR CHAPMAN: And I just want to  
8 follow up on the panelists about micro, about  
9 bacteria and fungi --

10 MEMBER SONNABEND: And  
11 microorganisms.

12 VICE CHAIR CHAPMAN: -- and finding  
13 someone that can -- I mean, I guess that kind is  
14 a callout to everyone to help us identify the right  
15 person to help us with that.

16 MEMBER SONNABEND: Uh-hum.

17 A-dae?

18 MEMBER ROMERO-BRIONES: We had several  
19 comments suggesting we find traditional plant  
20 breeding.

21 MEMBER SONNABEND: Uh-hum.

22 MEMBER ROMERO-BRIONES: So, to me, I am

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1 having a hard time grappling with defining that,  
2 particularly coming from indigenous communities  
3 where traditional plant breeding is not always  
4 clearly defined in classic plant-breeding  
5 definitions. So, I would like to be included if  
6 that goes forward.

7 MEMBER SONNABEND: Yes, the organic  
8 plant-breeding community, of which Dr. Tracy was  
9 one representative, but there are a number of  
10 others who work with Organic Seed Alliance and  
11 others, are very much aware of the indigenous  
12 people's, they call it, participatory plant  
13 breeding. And we definitely hope to consult those  
14 efforts. And it might be challenging, but we can  
15 take a stab at doing that.

16 Okay. Then, I think that we will  
17 consider this --

18 VICE CHAIR CHAPMAN: I'll make the --  
19 do you want me to -- yes?

20 MEMBER SONNABEND: Okay.

21 VICE CHAIR CHAPMAN: So, I move to  
22 refer the proposal back to the Subcommittee.

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1 CHAIR FAVRE: I have a motion. Do I  
2 have a second?

3 MEMBER SWAFFAR: Second.

4 CHAIR FAVRE: I have a motion from Tom  
5 and a second from Ashley. Is there any further  
6 discussion?

7 Yes, go ahead, Zea.

8 MEMBER SONNABEND: I forgot to make one  
9 point. We did get a couple of people who asked us  
10 to make positive standards instead, either organic  
11 plant-breeding standards or putting things on the  
12 National List. I feel that is not feasible at this  
13 time.

14 As far as the plant-breeding standards  
15 in detail, we have to have this in place first. And  
16 then, down the road, probably when I'm off the  
17 Board, some more detailed plant-breeding standards  
18 could be worked on. But, you know, I happen to know  
19 in Europe it has been discussed for 10 or 15 years,  
20 and they still do not have any standards in place.

21 CHAIR FAVRE: Any further discussion?

22 (No response.)

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1                   Okay. We're going to do this via roll  
2 call, and we are going to start with Harold Austin  
3 and work our way around the table.

4                   VICE CHAIR CHAPMAN: Now it's a simple  
5 majority.

6                   CHAIR FAVRE: Yes, it is a simple  
7 majority to go back, to send it back to the  
8 Subcommittee.

9                   So, Harold?

10                  MEMBER AUSTIN: Yes.

11                  MEMBER BUIE: Yes.

12                  MEMBER BECK: Yes.

13                  MEMBER SWAFFAR: Yes.

14                  MEMBER ROMERO-BRIONES: Yes.

15                  MEMBER DE LIMA: Yes.

16                  VICE CHAIR CHAPMAN: Yes.

17                  MEMBER SEITZ: Yes.

18                  MEMBER BEHAR: Yes.

19                  MEMBER SONNABEND: Yes.

20                  MEMBER RICE: Yes, ma'am.

21                  (Laughter.)

22                  MEMBER RICHARDSON: Yes.

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1 MEMBER THICKE: Yes.

2 CHAIR FAVRE: Did we hear the last two  
3 down there?

4 MEMBER OAKLEY: You might not have, but  
5 we did say yes.

6 CHAIR FAVRE: The Chair votes yes.

7 MEMBER DE LIMA: That's 15 yes, zero  
8 no, zero abstain, zero recusals.

9 CHAIR FAVRE: Okay.

10 MEMBER SONNABEND: Seed purity?

11 CHAIR FAVRE: Yes, I was going to say  
12 next up on the -- go ahead.

13 MEMBER SONNABEND: Okay. I'll move  
14 into seed purity.

15 Okay. Those of you regulars know we  
16 have been working on this issue also for a number  
17 of issues. We have issued a few discussion  
18 documents and a report and another discussion  
19 document. We had an expert panel a year ago in San  
20 Diego.

21 We're airing a lot of the issues, and  
22 we are still not really there at the proposal stage.

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1 So, this discussion document was kind of an attempt  
2 to throw everything at the wall and see if anything  
3 stuck.

4 (Laughter.)

5 No, I tried to synthesize all of the  
6 suggestions that had come in from all those years  
7 of public comment and, also, from talking to people  
8 about it at conferences and all over the place, and  
9 from the transcripts of our very informative expert  
10 panel that we had last year, to get some common  
11 themes that were always addressed, and then, to see  
12 if there was anything we could do about those  
13 themes.

14 We have heard back from a number of  
15 people, and I would have to say that people continue  
16 to think this is a very important subject and  
17 continue to help us, as we inch towards some  
18 activities that could lead us into the future on  
19 this.

20 So, we put out four definitive things.  
21 Unfortunately, we didn't get really a lot on Point  
22 E, which was like, "Give us a brand-new idea."

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1           But we did hear back on our four  
2 proposed suggestions, and many of the comments said  
3 all of these things could work in some kind of  
4 harmony together.

5           But the one that got the most positive  
6 support was the idea for a task force. Now I know  
7 there's like dueling task force requests on the  
8 NOSB in the future because a lot of people would  
9 like to have a task force and it is logical, so that  
10 we can involve some of the outside community in  
11 helping us make these tough decisions.

12           But this seems like one that could be  
13 ripe for a task force recommendation. And along  
14 with a task force, there's very much -- the whole  
15 issue of data needed is like just huge in this  
16 because people don't want to make decisions in a  
17 vacuum and they want to know where the  
18 contamination is coming from, what seed testing  
19 protocols would be, if any, and really keep someone  
20 to track, especially since the rest of the  
21 government is not tracking this at all, but all of  
22 the different varieties that are released that

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1 would be genetically-engineered.

2 And if we do put forward the excluded  
3 methods proposal, this may even be more necessary  
4 to have some sort of a recording system, database,  
5 clearinghouse, or something. There are various  
6 mechanisms for this that could be explored, both  
7 through public and private funding potentially.

8 And so, a task force could help focus  
9 the activities and the timeline around this. And  
10 so, I am supportive of all these suggestions  
11 potentially. I hear from the certifiers that they  
12 don't feel like a certifier data collection one  
13 will work and there are real problems with that.  
14 It just seemed that certifiers or inspectors are  
15 already out in the field, and that would be perhaps  
16 a feasible way to do it, but I definitely hear all  
17 the concerns.

18 So, I think we very likely might come  
19 back -- and we haven't spoken about this in a  
20 committee, and I am interested in what my fellow  
21 Board members think -- but going forward with a  
22 recommendation for a task force in the future on

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1 this subject might be worthwhile, because, as I  
2 mentioned, they could deal with the other aspects  
3 of it.

4 Also, in anticipation of when we put  
5 Item C in here, which was strengthening the organic  
6 seed requirements, so that there was more incentive  
7 for the organic seed companies to produce organic  
8 seed, I anticipated we would get a lot of supportive  
9 comment on this, which we did. We got quite  
10 extensive comment.

11 And therefore, at the same time we put  
12 this out, we put it into the request to be on our  
13 future work agenda for the Crops Committee to work  
14 on taking another look at the organic seed, what  
15 the NOSB passed, and what the USDA issued as  
16 guidance, and see ways that we could be  
17 strengthened. One of the first steps in that might  
18 be to see where the state is of organic seed usage.

19 So, that has been approved for the Crops  
20 Committee work agenda, and that will be working in  
21 tandem, then, with the Materials Subcommittee on  
22 this task force idea.

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1 MEMBER DE LIMA: Tracy?

2 CHAIR FAVRE: I would just like to  
3 comment that I do think a task force idea is a good  
4 idea. There's some work being done on the celery  
5 powder issue with a task force that is very  
6 collaborative in nature and it runs sort of the  
7 whole gamut from growers to processors, to the  
8 end-users, and trying to tackle it in a systems  
9 approach, which, obviously, is going to be required  
10 here.

11 I think if we can put something like  
12 that in place, we will have a much better chance  
13 of coming up with something, sort of having worked  
14 out some of the details of the issues across those  
15 different segments of the supply chain, if you  
16 will, before we try to tackle it within  
17 Subcommittee.

18 MEMBER DE LIMA: Tom?

19 VICE CHAIR CHAPMAN: Mine is a question  
20 for Miles. So, maybe let Miles go first. He might  
21 answer my question.

22 MR. McEVOY: You have a question? I

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1 have an question, too.

2 VICE CHAIR CHAPMAN: Oh, okay.

3 (Laughter.)

4 MEMBER DE LIMA: Miles, go first.

5 MR. McEVOY: Okay. So, my question is  
6 about the task force. When I see this, I see maybe  
7 two different things that you are looking for. A  
8 task force is something that would be put together  
9 to prepare more information, a report to the Board,  
10 similar to what the Hydroponics/Aquaponics Task  
11 Force is doing. It is a collection of experts that  
12 are preparing additional information for  
13 consideration by the Board, for the Board, then,  
14 to have further recommendations on hydroponics and  
15 aquaponics.

16 But I also see that you want to look at  
17 testing or look at data or accumulate data, which  
18 would be, to me, a separate project. So, there are  
19 a couple of efforts going on around market  
20 surveillance in terms of gathering data. There is  
21 the California Department of Food and Agriculture  
22 that is doing some testing for GMOs. And then, we

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1 have the Market Surveillance Program that we are  
2 initiating this year. We have resources  
3 potentially available to do additional testing,  
4 but it would have to be clear what it is that you're  
5 asking for.

6 So, to me, I'm seeing maybe two  
7 different concepts in this task force thing, unless  
8 I am misunderstanding.

9 MEMBER SONNABEND: Oh, I don't see it  
10 as two different concepts, and I don't see  
11 it -- like the data that we really need to identify  
12 first is whether contamination is coming from the  
13 seed or coming from pollen drift or coming from  
14 post-harvest handling. And that's not data that  
15 is being gathered by any of those other entities.  
16 I mean, it is just not marketplace data. It  
17 doesn't do that. The marketplace data collection  
18 is just, are you being contaminated? It doesn't  
19 ask where is it coming from.

20 So, I think it is I would like to have  
21 the task force grapple with how we can achieve the  
22 data needs that we are going to need. Because it

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1 is sort of outside of our ability to do that type  
2 of finetuning.

3 MR. McEVOY: Okay. So, you see it as  
4 a two-step process, that the task force would sort  
5 of identify the methodology of what needs to be done  
6 to get the information? And then, the second step  
7 would be actually doing that work to get that  
8 information? And all that would, then, be  
9 provided to the NOSB for your further  
10 consideration? Okay. Thank you.

11 VICE CHAIR CHAPMAN: So, my question  
12 for you, Miles, is, how would such a thing be  
13 funded? Would that come out of the FACA budget for  
14 the NOSB? Or would that come under just other NOP  
15 funding mechanisms?

16 MR. McEVOY: That would come under  
17 separate funding sources. So, all the funding for  
18 this fiscal year has been obligated. We could look  
19 at ways of potentially funding this for the coming  
20 year.

21 MEMBER SONNABEND: Well, since this  
22 wouldn't come back until the fall, it will be the

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1 next fiscal year for sure.

2 MR. McEVOY: Okay. If you're wanting  
3 this to happen, though, we start to obligate funds  
4 in October for the next year. So, the earlier we  
5 have this information clarifying what this request  
6 is, building a budget for what the financial needs  
7 are for this project would help.

8 MEMBER SONNABEND: We will start  
9 working on it right away.

10 MEMBER DE LIMA: Any other discussion  
11 on seed purity?

12 (No response.)

13 Okay. Seeing none, I think that  
14 concludes the Subcommittee.

15 CHAIR FAVRE: Thank you very much.

16 Okay. Next up is the Livestock  
17 Subcommittee, and I'm going to turn that over to  
18 Ashley Swaffar.

19 Ashley?

20 MEMBER SWAFFAR: So, this semester in  
21 the Livestock Committee our workload has been  
22 light. After sunset 2017, we appreciate the

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1 breather that we had. But we did come out with a  
2 couple of very important proposals this semester,  
3 and I am really proud that we are trying really hard  
4 to advance animal welfare on organic farms.

5 For our next semester coming up, we will  
6 be reviewing several petition substances,  
7 including three poultry litter amendments on  
8 sulfur and we have begun working on a proposal for  
9 the Organic Poultry Working Group, which will  
10 support the resolution that this Board passed last  
11 year to phase out synthetic methionine in poultry  
12 rations.

13 Although this fall semester looks to be  
14 light for the Livestock Committee, we look forward  
15 to working together as a Committee to bring forward  
16 several actionable items many of our Committee  
17 members want to see accomplished. So, look for new  
18 and exciting things coming from the Livestock  
19 Committee. But, if 10 or so items somehow swim  
20 onto our agenda, we can handle those.

21 (Laughter.)

22 All right. First up for us is

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1       hypochlorous acid petition proposal.

2                     Francis?

3                     DR. BRINES:   Excuse me.   Ashley, did  
4       you want me to introduce the petition?

5                     (Laughter.)

6                     MEMBER SONNABEND:   And don't we have to  
7       do conflict-of-interest disclosures before we  
8       start inviting --

9                     CHAIR FAVRE:   Okay.   I will give the  
10       Board     an     opportunity     to     make     any  
11       conflict-of-interest declarations before we get  
12       started.

13                    Zea?

14                    MEMBER SONNABEND:   Because I believe  
15       in transparent disclosures of conflict of  
16       interest, I would like to say at this time that I  
17       work for a certifier who may or may not certify any  
18       of the things that come before us on our agenda,  
19       but I do not have a personal financial gain from  
20       any of those things.

21                    CHAIR FAVRE:   Anybody else?

22                    Scott?

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1                   MEMBER RICE: I guess I would just say  
2 "ditto" to Zea's comment.

3                   CHAIR FAVRE: And I should note that  
4 the Board members, when we have the final list of  
5 proposals coming before the Board at the meeting,  
6 we circulate a spreadsheet, and all the Board  
7 members have had an opportunity to examine that  
8 ahead of time and make a determination if there is  
9 any conflict of interest and indicate whether there  
10 is any question about that. At this time there  
11 were no conflicts of interest identified.

12                   Harold?

13                   MEMBER AUSTIN: I think after looking  
14 at all of the public comment that comes in, I would  
15 like to go ahead and declare and put into the public  
16 records, though, that in excess of over 30 years  
17 ago in a previous life, I did work for FMC, for a  
18 different division of FMC involved in the ag  
19 chemical, as a crop consultant years ago, in excess  
20 of over 30 years ago.

21                   I'm assuming that we are doing this for  
22 everything or just for this?

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1 CHAIR FAVRE: Everything is fine.

2 MEMBER AUSTIN: Okay. So, looking at  
3 all the public comments, I just figured I should  
4 bring that forward.

5 CHAIR FAVRE: Thank you.

6 MEMBER AUSTIN: I could put into the  
7 record that they also took and fired myself and  
8 about 900 others.

9 CHAIR FAVRE: I believe you just did.  
10 I believe we are waiting for Dr. Brines.

11 DR. BRINES: Are you ready? All  
12 right.

13 The one petition considered by the  
14 Livestock Subcommittee this round is for  
15 hypochlorous acid. This petition was submitted on  
16 May 29th, 2015 by Botanical Food Company.

17 The petition requested addition to  
18 Section 205.601 and Section 205.605 of the National  
19 List. However, the National Organic Program also  
20 asked the Livestock Committee to look at those uses  
21 for chlorine under the current listing for chlorine  
22 as well.

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1           In support of the review, a technical  
2           evaluation report was developed and was completed  
3           in 2015. And both the petition and technical  
4           report are available to the public on the NOP  
5           website.

6           The petition was submitted in response  
7           to a Policy Memo 14-3 that was published by the  
8           Program on June 9th, 2014. That Policy Memo has  
9           since been updated to Policy Memo 15-4 on September  
10          11th, 2015.

11           Thanks.

12           CHAIR FAVRE: Okay. Francis?

13           MEMBER THICKE: Thank you.

14           As Lisa mentioned, this will be voted  
15          on in three Subcommittees, Livestock, Crops, and  
16          Handling. And so, if I don't cover it properly,  
17          anybody from the other Committees, you can just  
18          jump and yell here because we will probably cover  
19          most of the meat of it now.

20           As Lisa mentioned, it was being used and  
21          being allowed on farms and handling operations.  
22          And then, there was some question about it, and a

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1 petition came in.

2 And so, I wanted to kind, if this works  
3 here, to talk about what this really is. Already  
4 now, we have calcium and sodium hypochlorite that  
5 are on the National List, and hypochlorous acid was  
6 being used under that. But this is something that  
7 is made onsite with electrolyzed water.

8 If you look at the chart -- will this  
9 thing go that far? I guess I can't reach that far  
10 with it.

11 Okay. At the top it starts out with  
12 just distilled water or tap water and sodium  
13 chlorite. And then, the box in there is an  
14 electrolysis cell and it has a semi-permeable  
15 membrane in the middle. It pulls apart the water  
16 and the salt. And so, on one side you get protons  
17 and sodium, and then, on the other side you get  
18 hydroxyls and chlorine. And it goes further and  
19 makes the hypochlorous acid and, also, hydrogen  
20 comes off. A little bit of hydrogen comes off. A  
21 little bit of oxygen comes off. So, it is made  
22 right onsite.

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1           And one thing about it is that it is not  
2 a stable chemical. It will dissipate over time  
3 back to its original components. So, that is one  
4 advantage of it.

5           Another advantage is that it is used at  
6 a very dilute level. And so, unlike sodium  
7 hypochlorite and calcium hypochlorite, it is used  
8 and it is less dangerous in that regard.

9           And if you look at the next slide,  
10 which -- oh, yes, so it is split apart. And on the  
11 left you can see the pH was very low -- there we  
12 go -- like 2 to 6, and that's acidic electrolyzed  
13 water. And on the right side, it is a high pH.  
14 This is more in line with the pH of bleach or sodium  
15 and calcium hypochlorite.

16           And then, the final product, you can  
17 actually combine those two and get the hydroxyl  
18 back in there to lower the pH to neutral. And then,  
19 you have neutral electrolyzed water.

20           If you look at this chart, this is  
21 pretty explanatory. It is that this is  
22 hypochlorous acid in the middle. That is the

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1 middle pH. And this is the most effective  
2 sanitizing part.

3 Now the sodium and calcium hypochlorite  
4 are in this pH range, and it takes a higher  
5 concentration. Actually, the concentration is  
6 chlorine is about 10,000 times less at the  
7 concentration that it is being used as hypochlorous  
8 acid, which is a great advantage. And if you get  
9 too low on the pH, of course, you get down and you  
10 start blowing off chlorine on the low pH side. So,  
11 it is important that it is in the neutral side.

12 And that is why it is important that it  
13 is -- we have only looked at it as electrolyzed  
14 water. And we heard from somebody earlier in the  
15 comments that it can be made in other ways, and we  
16 have not evaluated those kinds of ways of making  
17 it. And so, in our annotation we are going to  
18 specify that it is made with electrolyzed water.

19 So, the advantages, then, are that it  
20 is manufactured on the site. And so, there aren't  
21 all the environmental and possibly health hazards  
22 that can go along with manufacturing some of these

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1 hazardous chemicals and hauling them, transporting  
2 them, and so on.

3 It is short-lived. It will decay back  
4 to its original constituents, and it is used at a  
5 very low concentration.

6 So, those are the main points I think  
7 that I wanted to cover. And maybe if anybody else  
8 wants to add something on that -- yes, Jesse?

9 MEMBER BUIE: Now hypochlorous acid is  
10 a sanitizing agent, right?

11 MEMBER THICKE: Hypochlorous acid is a  
12 sanitizing agent, yes.

13 MEMBER BUIE: Which means it is going  
14 to have to be at, what, about 6?

15 MEMBER THICKE: Yes, about 6 to 7, in  
16 that pH range, that middle pH range. You can see  
17 it at that wide range where it is pretty active.

18 MEMBER BUIE: Okay.

19 MEMBER THICKE: I don't know. This  
20 thing, it sometimes goes and sometimes doesn't.  
21 Okay.

22 The blue line in the middle is where the

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1 hypochlorous acid predominates. And so, as the pH  
2 changes, the species and solution changes. As it  
3 gets to a higher pH on the right, we lose the  
4 hypochlorous acid in favor of hypochlorite in  
5 solution. And as we go to the left, we lose the  
6 hypochlorous acid and it goes into chlorine  
7 predominates.

8 MEMBER BUIE: Right. Because there  
9 have been some studies where it was at 2.

10 MEMBER THICKE: I'm sorry?

11 MEMBER BUIE: I said there were some  
12 studies where they were using it at 2. Right?  
13 Okay. There were some studies where it was at 2.

14 MEMBER THICKE: pH 2?

15 MEMBER BUIE: Right. But, for our  
16 purposes, we want to just focus on --

17 MEMBER THICKE: Yes, in the central.

18 MEMBER BUIE: Okay.

19 MEMBER THICKE: And it is also, from  
20 what we have seen in the technical review, that is  
21 where it is most effective --

22 MEMBER BUIE: Right.

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1 MEMBER THICKE: -- as a sanitizer, and  
2 it can be done at the lowest concentration.

3 MEMBER BUIE: Okay.

4 MEMBER THICKE: Any other comments or  
5 questions?

6 (No response.)

7 MEMBER SWAFFAR: Ready for the  
8 classification motion.

9 MEMBER THICKE: Am I going to do that  
10 or --

11 MEMBER SWAFFAR: No, you do the  
12 classification.

13 MEMBER THICKE: Okay. Okay. Okay.  
14 So, the motion is to classify hypochlorous acid as  
15 synthetic.

16 CHAIR FAVRE: I have a motion from  
17 Francis. Do I have a second?

18 VICE CHAIR CHAPMAN: It comes from the  
19 Subcommittee.

20 CHAIR FAVRE: Oh, I'm sorry, yes.

21 VICE CHAIR CHAPMAN: Yes.

22 CHAIR FAVRE: You're right. This is

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1 coming, as a reminder, which I needed, too, this  
2 is coming from the Subcommittee as a seconded  
3 motion, just as a reminder.

4 VICE CHAIR CHAPMAN: It's already  
5 seconded, yes.

6 CHAIR FAVRE: Sorry, that's right.  
7 So, we are bringing it forward.

8 So, we have the motion before the  
9 Subcommittee to classify it as a synthetic. Any  
10 more discussion?

11 (No response.)

12 Okay. Seeing none, we are going to  
13 start the vote, and we are going to star with Jesse.

14 MEMBER BUIE: Yes.

15 MEMBER BECK: Yes.

16 MEMBER SWAFFAR: Yes.

17 MEMBER ROMERO-BRIONES: Yes.

18 MEMBER DE LIMA: Yes.

19 VICE CHAIR CHAPMAN: Yes.

20 MEMBER SEITZ: Yes.

21 MEMBER RICHARDSON: Yes.

22 MEMBER BEHAR: Yes.

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1 MEMBER SONNABEND: Yes.

2 MEMBER RICE: Yes.

3 MEMBER OAKLEY: Yes.

4 MEMBER THICKE: Yes.

5 MEMBER AUSTIN: Yes.

6 CHAIR FAVRE: The Chair -- oh, excuse  
7 me -- the Chair votes yes.

8 MEMBER DE LIMA: That's 15 yes, zero  
9 no. The motion passes.

10 MEMBER SWAFFAR: Thanks.

11 Tom?

12 VICE CHAIR CHAPMAN: So, the motion  
13 from the Subcommittees for the placement of this  
14 item on the National List is not explicit enough,  
15 and we do want it to be the same across all  
16 Subcommittees. The petition, the Subcommittee  
17 review, and the technical review were all for  
18 hypochlorous acid generated via electrolyzed  
19 water.

20 Therefore, I move to amend the motion  
21 at hand to read, "hypochlorous acid generated via  
22 electrolyzed water as petitioned".

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1 MEMBER RICHARDSON: Second.

2 CHAIR FAVRE: I have a motion from Tom  
3 and a second by Jean. Any discussion?

4 Francis?

5 MEMBER THICKE: I forgot to mention  
6 earlier about some of the comments. And I wanted  
7 to put on the record that we had some comments  
8 suggesting that we really need to do a  
9 comprehensive review of sanitizers, in light of  
10 bringing hypochlorous acid in. I think we have  
11 talked about that in the past, that we need to look  
12 at all the sanitizers. We look at where it is  
13 required by law and what is the efficacy against  
14 various agents that need to be sanitized, and so  
15 on.

16 So, I wanted to put that on the record.  
17 I think that is something that we should pursue in  
18 the future.

19 VICE CHAIR CHAPMAN: Yes, and just for  
20 clarity, this motion is to amend and, then, after  
21 this motion, pass or fail the motion. The main  
22 motion still sits and will need to be voted on as

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1 well.

2 MEMBER DE LIMA: Harold?

3 MEMBER AUSTIN: I would just like to  
4 add to the conversation for the amendment to the  
5 motion that we originally, throughout the various  
6 Subcommittees we did have hypochlorous acid and,  
7 then, in parenthesis "(electrolyzed water)". We  
8 removed that because we thought at one point it was  
9 going to be too restrictive. But, as we have gone  
10 through the deliberations and we have looked at  
11 public comments, we felt that having that part of  
12 that annotation is part of it, because that was the  
13 original intention and that was how this was  
14 petitioned. So, we felt that this was a better way  
15 to move with it.

16 And so, that is why we are looking to  
17 put this back in across all three Subcommittees for  
18 clarity and transparency, and then, having  
19 everything equal throughout all of the  
20 Subcommittees with the material that is on the  
21 National List, if it is approved.

22 CHAIR FAVRE: We've had the question

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1 called by Jean.

2 Do I have a second?

3 MEMBER SWAFFAR: Second.

4 CHAIR FAVRE: Okay. So, we have a  
5 motion to amend the motion. So, we will start with  
6 the vote on that with Carmela.

7 MEMBER BECK: Yes.

8 MEMBER SWAFFAR: Yes.

9 MEMBER ROMERO-BRIONES: Yes.

10 MEMBER DE LIMA: Yes.

11 VICE CHAIR CHAPMAN: Yes.

12 MEMBER SEITZ: Yes.

13 MEMBER RICHARDSON: Yes.

14 MEMBER BEHAR: Yes.

15 MEMBER SONNABEND: Yes.

16 MEMBER RICE: Yes.

17 MEMBER OAKLEY: Yes.

18 MEMBER THICKE: Yes.

19 MEMBER AUSTIN: Yup.

20 MEMBER BUIE: Yes.

21 CHAIR FAVRE: The Chair votes yes.

22 MEMBER DE LIMA: It's 15 yes, zero no.

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1 The motion passes.

2 CHAIR FAVRE: Okay. Now we've voted  
3 on the amendment to the motion for listing. So  
4 now, we have the amended motion which we have to  
5 vote on as a Board.

6 MEMBER SWAFFAR: Tracy, first, we need  
7 to ask if there is any further discussion on the  
8 motion.

9 CHAIR FAVRE: I was just explaining --

10 MEMBER SWAFFAR: Oh.

11 CHAIR FAVRE: -- to make sure that  
12 we're all clear on what we're doing here before we  
13 get started on the vote.

14 MEMBER SWAFFAR: Yes.

15 CHAIR FAVRE: Go ahead.

16 MEMBER SWAFFAR: Great. Any other  
17 discussion that we need to have?

18 (No response.)

19 Great.

20 CHAIR FAVRE: Okay. We have a motion  
21 on the Floor to accept the amended motion. Did  
22 that make sense? So, we will start that voting

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1 with -- who are we up to? -- Ashley.

2 MEMBER SWAFFAR: Yes.

3 MEMBER ROMERO-BRIONES: Yes.

4 MEMBER DE LIMA: Yes.

5 VICE CHAIR CHAPMAN: Yes.

6 MEMBER SEITZ: Yes.

7 MEMBER RICHARDSON: Yes.

8 MEMBER BEHAR: Yes.

9 MEMBER SONNABEND: Yes.

10 MEMBER OAKLEY: Yes.

11 MEMBER THICKE: Yes.

12 MEMBER AUSTIN: Yes.

13 MEMBER BUIE: Yes.

14 MEMBER BECK: Yes.

15 MEMBER DE LIMA: That's 15 yes, zero

16 no. The motion passes.

17 CHAIR FAVRE: The Chair votes yes.

18 MEMBER DE LIMA: Oh, sorry.

19 (Laughter.)

20 CHAIR FAVRE: So now, yes, the same

21 vote.

22 MEMBER SWAFFAR: Great. Thank you.

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1                   Up next we have Jean with the  
2 parasiticides.

3                   MEMBER RICHARDSON: Yes, lidocaine.  
4 Lidocaine and procaine.

5                   MEMBER SWAFFAR: Right, lidocaine.  
6 Great.

7                   MEMBER RICHARDSON: So, if you would  
8 just bring it to, Michelle, just bring it up to  
9 where the vote is, you know, the motions.

10                   So, what we have here is a motion to  
11 shorten the withholding period for the use of two  
12 local anesthetics, lidocaine and procaine,  
13 recognizing that in the U.S. we virtually never use  
14 procaine, but it is still there on the list. So,  
15 both lidocaine and procaine, lidocaine commonly  
16 used; procaine, almost never.

17                   And so, we have two motions that we will  
18 look at in order to be able to shorten the  
19 withholding period from 90 days to eight days after  
20 administering to livestock consented for slaughter  
21 and six days after administering to dairy animals,  
22 these numbers representing double the FARAD.

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1           So, this began to develop as a topic  
2 based on public comment early last year, when we  
3 began the process of reviewing these materials for  
4 sunset. And we, obviously, received public  
5 comment during two different periods last year.  
6 We floated a discussion document in full in order  
7 to see if the idea of reducing these withholding  
8 periods was something for which there was a general  
9 positive approval or consensus amongst a broad  
10 range of stakeholders. And that is, indeed, what  
11 we found.

12           We found that there was a broad support  
13 for getting consistency in the way in which we deal  
14 with these types of materials. And we found that,  
15 with one minor glitch, which I will get to in a  
16 minute or two, that there was very broad  
17 stakeholder approval for making these changes when  
18 we floated both the discussion document and, then,  
19 subsequently, this proposal which you have before  
20 you today.

21           It is recognized both here and in the  
22 EU that there are no suitable alternatives to

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1 lidocaine, and lidocaine, of course, is also  
2 commonly used directly on humans.

3 Consumers definitely want to see their  
4 animals treated humanely, and we have, as you heard  
5 again today, strong support from the American  
6 Society for the Prevention of Cruelty to Animals  
7 and from the Humane Society, that they are really  
8 delighted to see us moving forward for humane  
9 treatment of animals. Because, as you know, if  
10 there is a lengthy withholding, sadly, there will  
11 be times when, even though they are not supposed  
12 to, treatment may be withheld from the animal  
13 because of the cost involved to the farmer of not  
14 being able to deal with that animal as it was  
15 intended.

16 In 2007, as you recall, there was a  
17 great deal of public comment, and it was agreed that  
18 the NOSB could require double FDA or double the  
19 Federal Animal Drug Residue Avoidance and  
20 Databank, FARAD, withholding times for livestock  
21 materials. And so, this proposal you see now will  
22 bring us up with the consistency, which is

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1 particularly important. Consistency is very  
2 important across the organic standards.

3 And we have support from a wide range  
4 of certifiers, of groups of organic dairies.  
5 NODPA, for example, represents 11 different states  
6 in the Northeast. We have veterinarians, public  
7 interest groups, farms, et cetera, supporting  
8 this.

9 We did have a comment that raised some  
10 concerns very recently out of this present bunch  
11 of comments. The European Medicines Agency  
12 Assessment that came out, I think it was last  
13 year -- I don't have it right in front of  
14 me -- indicated that there could be some concerns,  
15 human health concerns, for the consumption of meats  
16 from the use of the lidocaine. And several of us  
17 on the Livestock Committee as well as staff in the  
18 NOP looked at these documents in some detail in  
19 order to clarify exactly what they meant.

20 The Assessment from the European study  
21 indicated that there was a non-detect in milk 48  
22 hours after injection and a non-detect in muscle

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1 meat at 48.5 hours post-injection. And their  
2 recommendation for horse meat was that there could  
3 be zero withholding for horse meat; for slaughter  
4 cattle, 28 days, and milk, 15 days, but that some  
5 countries may legally opt out of the recommendation  
6 and, for example, just have zero days for milk and  
7 24 hours for slaughter, such as Norway.

8           However, when we looked at the fine  
9 detail when non-detect began to occur and the  
10 metabolites of lidocaine that were being measured,  
11 we determined that we would stick with the FARAD  
12 withholding periods that we had worked on, based  
13 on all the research that we have looked at in the  
14 last year, and that if, in fact, the NOP decides  
15 that it wants to do anything further with this  
16 recent European study, then we would come back and  
17 relook at what had been proposed, assuming that  
18 FARAD changed their recommendations based on this  
19 study.

20           So, we continue to recommend from the  
21 Subcommittee, and this came as a unanimous proposal  
22 from the Subcommittee, that we support these

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1 changes that are suggested here today.

2 Yes, if you could float it up to the  
3 dates?

4 So, you see there the days up there. We  
5 are changing it from the 90 days, for which we found  
6 no scientific reason, to the eight days, which  
7 double the FARAD for slaughter, and the six days,  
8 instead of seven days, which is double the FARAD  
9 for dairy animals.

10 And this comes as a seconded motion.

11 Discussion?

12 And, Francis, do you want to add  
13 anything more?

14 MEMBER THICKE: Yes, if I could. On  
15 the European study, it suggested, and it should be  
16 clear, that they said 45 days for the last molecule  
17 of lidocaine to be cleared.

18 MEMBER RICHARDSON: Right.

19 MEMBER THICKE: First of all, it was a  
20 model, not an empirical measurement. And  
21 secondly, we don't ever really hold anything to the  
22 last molecule. Usually, the detection limit is

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1 about 1 part per billion, and if you calculate it,  
2 you got about 10 to the 15th molecules at that  
3 point, or quadrillion. And so, if you are going  
4 to wait to the last molecule, we probably wouldn't  
5 have anything left on our Livestock Materials List,  
6 I think.

7 MEMBER RICHARDSON: Are there other  
8 questions, comments?

9 I think we might be ready for the  
10 question.

11 CHAIR FAVRE: We have a motion before  
12 the Board -- it came as a seconded motion -- to make  
13 an annotation change for -- yes, we are going to  
14 do these as separate votes for everybody. So,  
15 everybody knows, we will vote on each of the  
16 motions, even though they are essentially the same  
17 as far as the change goes or the intent behind it.

18 So, the first one is for lidocaine. Do  
19 you want to read the motion? Yes.

20 MEMBER RICHARDSON: Read it into the  
21 record. The first motion is that the deleted  
22 language be removed and the underlined

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1 language -- is that what I am reading? Yes -- the  
2 underlined language be added at 205.603(b) as  
3 topical treatment, external parasiticide or local  
4 anesthetic, as applicable.

5 No. 4, lidocaine is a local anesthetic.  
6 Use requires a withdrawal period of eight days  
7 after administering to livestock intended for  
8 slaughter, six days after administering to dairy  
9 animals.

10 CHAIR FAVRE: Okay. We have a motion  
11 from Jean and a second from Francis out of  
12 Committee. Is there any further discussion?

13 (No response.)

14 Okay. We will start the vote with  
15 A-dae.

16 MEMBER ROMERO-BRIONES: Yes.

17 MEMBER DE LIMA: Yes.

18 VICE CHAIR CHAPMAN: Yes.

19 MEMBER SEITZ: Yes.

20 MEMBER RICHARDSON: Yes.

21 MEMBER BEHAR: Yes.

22 MEMBER SONNABEND: Yes.

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1 MEMBER RICE: Yes.

2 MEMBER OAKLEY: Yes.

3 MEMBER THICKE: Yes.

4 MEMBER AUSTIN: Yes.

5 MEMBER BUIE: Yes.

6 MEMBER BECK: Yes.

7 MEMBER SWAFFAR: Yes.

8 CHAIR FAVRE: The Chair votes yes.

9 MEMBER DE LIMA: That's 15 yes, zero  
10 no. The motion passes.

11 MEMBER RICHARDSON: The second motion  
12 is essentially the same as the first, but deals with  
13 procaine. And it reads that, "The deleted  
14 language be removed, the underlined language be  
15 added, at 205.603(b) as topical treatment,  
16 external parasiticide, or local anesthetic, as  
17 applicable.

18 (7), procaine, as a local anesthetic.  
19 Use requires a withdrawal period of eight days  
20 after administering to livestock intended for  
21 slaughter and six days after administering to dairy  
22 animals.

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1 CHAIR FAVRE: Okay. Any further  
2 discussion?

3 (No response.)

4 Okay. This time we will start the vote  
5 with Lisa.

6 MEMBER DE LIMA: Yes.

7 VICE CHAIR CHAPMAN: Yes.

8 MEMBER SEITZ: Yes.

9 MEMBER RICHARDSON: Yes.

10 MEMBER BEHAR: Yes.

11 MEMBER SONNABEND: Yes.

12 MEMBER RICE: Yes.

13 MEMBER OAKLEY: Yes.

14 MEMBER THICKE: Yes.

15 MEMBER AUSTIN: Yes.

16 MEMBER BUIE: Yes.

17 MEMBER BECK: Yes.

18 MEMBER SWAFFAR: Yes.

19 MEMBER ROMERO-BRIONES: Yes.

20 CHAIR FAVRE: The Chair votes yes.

21 MEMBER DE LIMA: It's 15 yes, zero no.

22 The motion passes.

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1                   MEMBER SWAFFAR:     Great.     Thanks,  
2     Jean.

3                   Do you want to move on to parasiticides  
4     now?

5                   MEMBER RICHARDSON:    The parasiticide  
6     proposal.

7                   Why don't you roll initially just down  
8     to the bottom of the first page there, Michelle,  
9     where it lists what the proposal is recommending?  
10    That way, we are clear what it's not recommending.

11                   And so, you can see here just in sort  
12    ordinary laymen's terms what it is that we are  
13    recommending.  It is very important to note the  
14    following things:

15                   That we are not changing the  
16    prohibition of parasiticides in slaughter stock.  
17    It will still be prohibited, which, again, makes  
18    us a much higher standard than in the rest of the  
19    world for organics.  That is not changing.

20                   Before I get to the next one, let me just  
21    say two other things.  One is that we are working  
22    here with the goal of immediately starting work on

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1 what is the definition of "emergency". Because,  
2 as we all know, the parasiticides can only be used  
3 as a last resort, as an emergency. And I keep  
4 repeating this because everyone assumes that we are  
5 going to immediately have -- not everyone -- but  
6 some would assume that we are immediately going to  
7 have systemic or a constant use or a prophylactic  
8 use of parasiticides. That is not allowed to take  
9 place under our rule.

10 And we will be working in the  
11 Subcommittee, taking up as a work agenda item what  
12 is the definition of "emergency" and how will it  
13 be dealt with. And you heard some comment on that  
14 today in oral comment, and we will be working on  
15 that and, hopefully, come right back with a  
16 proposal. Hopefully, Harriet will be working on  
17 that in the Subcommittee to bring forward a  
18 proposal for the fall. Because we take those  
19 comments that we got from the public very  
20 seriously.

21 The other thing to be sure that we  
22 understand before we sort of continue going through

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1 this is that the Subcommittee is adamant that we  
2 should remove, have a motion, have a petition to  
3 remove ivermectin, based on all of the research  
4 that we have heard over the last year-and-a-half,  
5 as we have been working through sunset, followed  
6 by discussion documents, followed by this  
7 proposal.

8 So, we still feel that very strongly,  
9 even though I know this has the potential to  
10 negatively impact some producers. We will be  
11 bringing forward a petition to do this again for  
12 the fall meeting.

13 And as you recall, the reason why we  
14 didn't throw it all in together is that we need to  
15 be sure that there's notice out there that those  
16 people that have been typically using only  
17 ivermectin have the opportunity to be able to get  
18 access to fenbendazole and moxidectin, and start  
19 experimenting to see what parasiticides as needed  
20 in an emergency may be as effective for them. That  
21 way, we will get some good comparative feedback,  
22 we hope, on ivermectin as we go through the next

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1 piece of our work.

2 So, this is a pretty critical thing that  
3 we are doing here today, and I do believe it is very  
4 important for humane treatment of animals.

5 We are recommending that it still is  
6 prohibited in slaughter stock, but that the milk  
7 withholding period after treatment with  
8 fenbendazole and moxidectin be changed from the 90  
9 days, for which we could find no scientific reason  
10 why it had been started in the first place, to two  
11 days for dairy cows and 36 days for goats and sheep,  
12 based on the science as it is at the present and  
13 the FARAD levels. These are double the FARAD  
14 levels.

15 You will recognize, of course, that for  
16 goats and sheep we are working with -- you have to  
17 look at the weight of the animal, and so forth, in  
18 order to determine the withholding period. So, it  
19 is different for goats and sheep than it is for  
20 dairy cows.

21 The next item is that the listing for  
22 ivermectin is not changing on this. It is not

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1 changing. So, you still have that 90-day  
2 withdrawal period for the ivermectin. That hasn't  
3 changed and we're not recommending that it change.

4 The next thing that the proposal is  
5 doing is we are moving moxidectin from to be used  
6 for both internal and external use because it was  
7 incorrectly listed in the original listing for a  
8 number of reasons which are listed in the lengthy  
9 document which I assume we have all read.

10 The next aspect of this proposal is that  
11 we would allow fleece and wool from fiber-bearing  
12 animals to be allowed to be certified organic, even  
13 if parasiticides had been necessary at some point  
14 in the animal's life. And we will look at the  
15 details in that motion in a minute or two.

16 And the next thing that we have done is  
17 that we are recommending or proposing that  
18 fenbendazole be allowed without the written order  
19 of a veterinarian. As you know, ivermectin is  
20 available over the counter. Fenbendazole, it sort  
21 of varies, but pretty much you've got to have a  
22 veterinarian.

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1           Okay.     Let's see.     We received  
2 extensive comment on these recommendations that we  
3 are proposing, both in the fall when we did the  
4 discussion document and, also, for this proposal  
5 here that is before us today.

6           By and large, we have very strong  
7 support from around the country from all  
8 stakeholders. Several organizations recommended  
9 that we shape up and get a good definition of  
10 "emergency use," and we have taken that very  
11 seriously, and we will, indeed, be doing that.  
12 They were supportive, but wanted to have emergency  
13 use attended to.

14           We have one group that wanted us to send  
15 it back to Subcommittee because they wanted to have  
16 ivermectin and moxidectin removed and have it go  
17 back for further work at Subcommittee. I believe  
18 that we will be able to address the ivermectin issue  
19 in our fall motion to remove, or petition to remove,  
20 I mean.

21           One organization and one farm which is  
22 part of that organization was recommending that we

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1 not approve this, but we got broad support from  
2 organizations which believe that the humane  
3 treatment of animals is really going to be  
4 addressed by making sure that in emergency  
5 situations that animals can receive treatment and  
6 that withholding treatment from the animals just  
7 because of the fact that 90 days without milk, for  
8 example, as we heard from the veterinarian this  
9 morning, would have a serious economic impact on  
10 the farmer, but the animal, of course, is suffering  
11 in the meanwhile.

12 And again, a reminder that we expect all  
13 the certifiers to be ensuring that all farms that  
14 you are certifying and the inspectors that go to  
15 it are verifying that there is, in fact, a parasite  
16 control plan in place, and that that plan is  
17 actually being followed, and that it includes  
18 careful management of the pasture, the grazing  
19 periods, whether it is wet or dry conditions, all  
20 those things which we know are really good for  
21 management.

22 We recognize that there are many farms

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1 that don't use any parasiticides at all at any  
2 point, and especially dairy farms, but that it can  
3 be a challenge for farms that are dealing with sheep  
4 or with goats.

5 Let's see. I think that is sort of  
6 basically all I need to say.

7 But, then, is there anything you want  
8 to add, Francis? You worked on this as well. No?  
9 Okay. Francis had nothing to add.

10 So, questions from anybody on this  
11 before we -- yes?

12 MEMBER BEHAR: Are you planning on  
13 changing the fiber-bearing animal wording?

14 MEMBER RICHARDSON: The motion, when I  
15 get to that, yes.

16 MEMBER BEHAR: Okay.

17 MEMBER RICHARDSON: Definitely.  
18 Thank you for reminding of that. Yes.

19 MEMBER DE LIMA: Emily?

20 MEMBER OAKLEY: This is more a comment,  
21 but I am just looking forward to the ivermectin  
22 proposal this fall.

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1 MEMBER RICHARDSON: Yes, we all are.

2 CHAIR FAVRE: Tom?

3 MEMBER RICHARDSON: Sorry.

4 VICE CHAIR CHAPMAN: Me? So, just to  
5 clarify, we are going to vote on all five of these  
6 individually? The first one is just about  
7 removing the listing on dairy and milk and moving  
8 into the National List, right?

9 MEMBER RICHARDSON: Yes. We have  
10 five.

11 VICE CHAIR CHAPMAN: Yes.

12 MEMBER RICHARDSON: So, in order to  
13 accomplish this wonderful thing, because of the way  
14 in which the rule is written, all the bits of it,  
15 if we could turn to the first motion, Michelle?  
16 And we will go through each of them, and I will say  
17 a little bit about each of them before we vote on  
18 it.

19 Okay. The first motion: "that the  
20 strikethrough language be removed and the  
21 underlined language" -- and these come, I should  
22 say these come as they are all unanimous motions,

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1 seconded motions, coming from the Subcommittee,  
2 each of them the same.

3 So, the first motion is "to make change  
4 at Section 205.203(b)(2), dairy animals". And  
5 then, we delete "stock" "when used a minimum of 90  
6 days prior to production to milk or milk products  
7 that are sold, labeled, or represented as organic".  
8 Instead, we just have "as allowed under 205.603".

9 So, this is doing two things. It is  
10 simplifying what it is we're voting on right now,  
11 and it is sort of referring us from 238(b) to  
12 603(a), sort of tying those two pieces of the rule  
13 together.

14 And so, then, it goes on to say, "and  
15 at 205.603(a)(18)," it deletes all of that. It is  
16 just a sort of tidying up of what's in the rule.  
17 So, in a way, if you haven't gone into it in minute  
18 detail as I did for a period of time, driving me  
19 crazy, it has been verified by the NOP that this  
20 is the correct way to do it. I did work with staff  
21 to make sure that, when we come up with a motion,  
22 that it would be something that could function and

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1 work in rulemaking.

2 So, we are voting on this whole thing  
3 as written up there and as I just read out.

4 Any questions on that motion?

5 Yes, Dan?

6 MEMBER SEITZ: So, 205.603, is that  
7 where the time is --

8 MEMBER RICHARDSON: Parasiticide,  
9 yes. Right.

10 MEMBER SEITZ: -- is that double the  
11 FARAD time limited?

12 MEMBER RICHARDSON: Yes.

13 MEMBER SEITZ: Okay. Thanks.

14 CHAIR FAVRE: Okay. Francis, go  
15 ahead.

16 MEMBER THICKE: I think just to clarify  
17 it, 238 is where the standard is and 603 is where  
18 the list is, so people understand that, you know,  
19 because it is confusing.

20 CHAIR FAVRE: Okay. Ready to vote?  
21 Okay. The voting will start with Tom.

22 VICE CHAIR CHAPMAN: Yes.

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1 MEMBER SEITZ: Yes.  
2 MEMBER RICHARDSON: Yes.  
3 MEMBER BEHAR: Yes.  
4 MEMBER SONNABEND: Yes.  
5 MEMBER RICE: Yes.  
6 MEMBER OAKLEY: Yes.  
7 MEMBER THICKE: Yes.  
8 MEMBER AUSTIN: Yes.  
9 MEMBER BUIE: Yes.  
10 MEMBER BECK: Yes.  
11 MEMBER SWAFFAR: Yes.  
12 MEMBER ROMERO-BRIONES: Yes.  
13 MEMBER DE LIMA: Yes.  
14 CHAIR FAVRE: The Chair votes yes.  
15 MEMBER DE LIMA: So, 15 yes, zero no.  
16 The motion passes.  
17 MEMBER RICHARDSON: So, if we can  
18 scroll, then, to the second motion that we have,  
19 "that the underlined language be added at  
20 205.238(b)(3), fiber-bearing animals, as allowed  
21 under Section 205.603; and at 205.603(a)(18),  
22 allowed for fiber-bearing animals when used a

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1 minimum of 90 days prior to" -- and the word  
2 "production" I'm going to talk about in a  
3 second -- "of fleece or wool that is to be sold,  
4 labeled, or represented as organic."

5 I would like to clarify what we mean by  
6 "production". We did receive public comment that  
7 wanted us to provide clarification for that word  
8 "production" to say, does that mean just the time  
9 when you're cutting fleece?

10 So, what we intend by that, as we go  
11 through rulemaking, sort of a message to the NOP,  
12 is harvest, whether that is shearing or plucking  
13 the wool -- well, I don't know whether you do that  
14 to goats, do you? Yes, I guess you do, for some  
15 goats you do.

16 So, the intention is that 90 days prior  
17 to shearing the sheep, or whatever it is,  
18 harvesting it, that you could use, if necessary,  
19 under emergency situations -- and again, I keep  
20 stressing that; this is not to be used  
21 prophylactically -- that you could have used the  
22 ivermectin at the moment or fenbendazole and

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1 moxidectin.

2           There were questions raised by some  
3 commenters, very few, raising the concern that  
4 there may be residues in the wool of the animals.  
5 I've looked extensively at that, and I have asked  
6 anyone that suggests that to provide specificity  
7 as to any science on that. And I have not really  
8 found anything that is particularly substantive.  
9 There is some suggestion that there may be some with  
10 goat hair, but it was a study that didn't really  
11 provide us with enough information to get the  
12 necessary clarity as to what was being used and what  
13 was left in it. And it was, essentially, a  
14 non-detect.

15           We did hear this morning, when we asked  
16 a question, that for fenbendazole, for example, it  
17 can't be absorbed into wool. It goes into the  
18 parasite and that it is not in the tissue.

19           And further to address any of those  
20 concerns is that there is an extensive system for  
21 testing and for analyzing organic wool as it enters  
22 the market system, as it moves from one country to

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1 another. And if it is going to be certified as  
2 organic, the standards require testing for  
3 pesticides, as, for example, for any kind of  
4 residues in the wool, and it is a pretty rigorous  
5 testing process. We haven't seen evidence of this  
6 as the fibers have moved through the international  
7 market.

8 I think that this is a pretty exciting  
9 proposal or a recommendation for us to be bringing  
10 forward here because, obviously, it is going to  
11 increase our market competition, if you will.  
12 But, also, at the same time, I think that it is going  
13 to be really good for the humane treatment of sheep,  
14 where sometimes, because of the need to get fleece  
15 to harvest, treating sheep may have been withheld.  
16 So, I think this is really great thing that we are  
17 going to be able to do here today.

18 Other questions on this?

19 Yes, Francis?

20 MEMBER THICKE: After I read this now,  
21 I am concerned about that word "production". We  
22 meant "harvest" when we were talking about it.

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1       Should we and can we change that, because it is  
2       confusing? It sounds like it is kind of when you  
3       are going to start producing from the beginning of  
4       the growing of the hair.

5                   MEMBER RICHARDSON: Can we do that as  
6       a simple change, Dr. Brines, or do we need a motion  
7       to amend the word from "production" to "harvest"?  
8       You want a motion?

9                   DR. BRINES: So, the question is about  
10      amending the motion to change the term "production"  
11      to "harvest"?

12                   MEMBER RICHARDSON: Yes.

13                   DR. BRINES: If it's introduced as a  
14      friendly amendment, I guess the Chair could ask if  
15      there's any objection before moving forward with  
16      that vote.

17                   CHAIR FAVRE: Okay. We have the issue  
18      of a friendly amendment. Do I have any objections  
19      to that from the Board?

20                   (No response.)

21                   Okay. So, what wording exactly do we  
22      want to put in there? Put in "harvest"?

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1                   MEMBER RICHARDSON:           The word  
2 "production" would be replaced by the word  
3 "harvest". And Francis and I were the makers of  
4 that motion, and we're happy with that.

5                   CHAIR FAVRE:   Okay.

6                   MEMBER RICHARDSON:   Yes, Dr. Brines?

7                   DR. BRINES:           Yes, just one  
8 clarification for the program as we move to  
9 implement this recommendation if it passed. The  
10 intent of the recommendation is that the production  
11 or harvest would be the point at which that  
12 fleece --

13                   MEMBER RICHARDSON:   Yes.

14                   DR. BRINES:   -- or wool is removed from  
15 the animal?

16                   MEMBER RICHARDSON:   Correct.

17                   DR. BRINES:   Thank you.

18                   MEMBER BEHAR:   I just want to make  
19 clear that, when we talk about fiber-bearing  
20 animals, we are not just only talking about sheep.  
21 Goats, there is alpaca, llama, and even Angora  
22 rabbits.

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1 MEMBER SWAFFAR: And buffalo.

2 (Laughter.)

3 MEMBER RICHARDSON: And camels maybe.

4 (Laughter.)

5 We have a camel down the street on the  
6 fiber farm near me. No.

7 Okay. We're ready for the question.

8 CHAIR FAVRE: Okay. The question has  
9 been called on the friendly amendment, and we will  
10 start the vote with Dan.

11 MEMBER SEITZ: Yes.

12 MEMBER RICHARDSON: Yes.

13 MEMBER BEHAR: Yes.

14 MEMBER SONNABEND: Yes.

15 MEMBER RICE: Yes.

16 MEMBER OAKLEY: Yes.

17 MEMBER THICKE: Yes.

18 MEMBER AUSTIN: Yes.

19 MEMBER BUIE: Yes.

20 MEMBER BECK: Yes.

21 MEMBER SWAFFAR: Yes.

22 MEMBER ROMERO-BRIONES: Yes.

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1 MEMBER DE LIMA: Yes.

2 VICE CHAIR CHAPMAN: Yes.

3 CHAIR FAVRE: The Chair votes yes.

4 MEMBER DE LIMA: It is 15 yes, zero no.

5 The motion passes.

6 CHAIR FAVRE: Okay. We have got the  
7 motion as amended. It has come as a seconded  
8 amendment. So, we will now start the vote on the  
9 amendment as modified with Jean.

10 MEMBER RICHARDSON: Yes.

11 MEMBER BEHAR: Yes.

12 MEMBER SONNABEND: Yes.

13 MEMBER RICE: Yes.

14 MEMBER OAKLEY: Yes.

15 MEMBER THICKE: Yes.

16 MEMBER AUSTIN: Yes.

17 MEMBER BUIE: Yes.

18 MEMBER BECK: Yes.

19 MEMBER SWAFFAR: Yes.

20 MEMBER ROMERO-BRIONES: Yes.

21 MEMBER DE LIMA: Yes.

22 VICE CHAIR CHAPMAN: Yes.

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1 MEMBER SEITZ: Yes.

2 CHAIR FAVRE: The Chair votes yes.

3 MEMBER DE LIMA: Fifteen yes, zero no.

4 The motion passes.

5 MEMBER RICHARDSON: The next motion  
6 for us to vote on is No. 3, "that the strikethrough  
7 language be removed and the underlined language be  
8 added at 205.603(a)(18)(i), fenbendazole. We are  
9 removing the written order of the licensed  
10 veterinarian, and instead, it goes on to say, "Milk  
11 or milk products from the treated animal cannot be  
12 labeled as provided for in Subpart (d) in this Part  
13 (4) two days following treatment of cattle, 36 days  
14 following treatment of goats, sheep, and other  
15 dairy species."

16 Again, this is a seconded motion from  
17 the Subcommittee.

18 The main thing we are doing here as,  
19 again, a bit of a technical -- well, primarily, it  
20 is to remove the fact this fenbendazole presently  
21 can be only used under the lawful written order of  
22 a licensed veterinarian.

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1 CHAIR FAVRE: Is there any discussion?

2 Go ahead, Dan.

3 MEMBER SEITZ: So, my question is, are  
4 you removing the veterinarian requirement because  
5 there is a stronger parasiticide that people might  
6 turn to, ivermectin, precisely because it would be  
7 more readily available to them? And so, you have  
8 an unintended consequence that you might move to  
9 something that is less satisfactory. Is that  
10 correct?

11 MEMBER RICHARDSON: Yes, that is a  
12 correct analysis. We are trying to get  
13 consistency, so that all of them can be the same  
14 and in order to have a more benign parasiticide  
15 rather than the ivermectin.

16 MEMBER SEITZ: And just a follow-up  
17 question. When you remove the veterinarian  
18 requirement, is there a possibility that you, among  
19 some farmers, you might see people starting to use  
20 it more routinely rather than in emergencies? Is  
21 that a drawback to that?

22 MEMBER RICHARDSON: The organic

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1 production of livestock prohibits the routine use  
2 of parasiticides. And so, it will be up to the  
3 certifiers and the inspectors to ensure that that  
4 does not take place.

5 CHAIR FAVRE: Harriet, did you still  
6 have a question?

7 MEMBER BEHAR: I just want to make  
8 clear that another dairy species is water buffalo.  
9 People do make mozzarella cheese out of that.

10 MEMBER RICHARDSON: We did talk about  
11 that in Subcommittee.

12 CHAIR FAVRE: We actually did.

13 Any other discussion?

14 (No response.)

15 Okay. Seeing none, we will start the  
16 vote with Harriet.

17 MEMBER BEHAR: Yes.

18 MEMBER SONNABEND: Yes.

19 MEMBER RICE: Yes.

20 MEMBER OAKLEY: Yes.

21 MEMBER THICKE: Yes.

22 MEMBER AUSTIN: Yes.

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1 MEMBER BUIE: Yes.

2 MEMBER BECK: Yes.

3 MEMBER SWAFFAR: Yes.

4 MEMBER ROMERO-BRIONES: Yes.

5 MEMBER DE LIMA: Yes.

6 VICE CHAIR CHAPMAN: Yes.

7 MEMBER SEITZ: Yes.

8 MEMBER RICHARDSON: Yes.

9 CHAIR FAVRE: The Chair votes yes.

10 MEMBER DE LIMA: It's 15 yes, zero no.

11 The motion passes.

12 MEMBER RICHARDSON: The fourth motion  
13 deals with ivermectin. And again, a reminder, it  
14 is our intention to remove ivermectin from the  
15 National List, hopefully, this fall.

16 So, this simply says, really it's -- I  
17 can't remember why we have to do this.

18 205.603(a)(18)(ii), ivermectin, and it  
19 says, "Milk or milk products from a treated animal  
20 cannot be labeled as provided for in Subpart (d)  
21 of this part for 90 days following treatment."

22 VICE CHAIR CHAPMAN: You had to do it

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1 because we removed it --

2 MEMBER RICHARDSON: Right.

3 VICE CHAIR CHAPMAN: -- as a global  
4 requirement on all of them.

5 MEMBER RICHARDSON: Right.

6 VICE CHAIR CHAPMAN: Yes.

7 MEMBER RICHARDSON: Yes.

8 MEMBER SONNABEND: I don't really  
9 understand.

10 MEMBER RICHARDSON: Well, we had to  
11 split it up. They were grouped, remember? The  
12 way they were all listed originally, they were all  
13 grouped into sort of a block. So, we had to split  
14 them, each of the different ones out. They didn't,  
15 right.

16 So, this, again, clarifies the rule, so  
17 that we can look at each of them separately instead  
18 of all grouped together.

19 MEMBER DE LIMA: Harriet?

20 MEMBER BEHAR: Well, that will also  
21 make it easier to take ivermectin off.

22 MEMBER RICHARDSON: Yes.

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1                   MEMBER DE LIMA:       Any further  
2 discussion?

3                   (No response.)

4                   CHAIR FAVRE:   Okay. We are ready for  
5 the vote. We will start that vote with Zea.

6                   MEMBER SONNABEND:   Yes.

7                   MEMBER RICE:    Yes.

8                   MEMBER OAKLEY:   Yes.

9                   MEMBER THICKE:   Yes.

10                  MEMBER AUSTIN:   Yes.

11                  MEMBER BUIE:     Yes.

12                  MEMBER BECK:     Yes.

13                  MEMBER SWAFFAR:   Yes.

14                  MEMBER ROMERO-BRIONES:   Yes.

15                  MEMBER DE LIMA:   Yes.

16                  VICE CHAIR CHAPMAN:   Yes.

17                  MEMBER SEITZ:     Yes.

18                  MEMBER RICHARDSON:   Yes.

19                  MEMBER BEHAR:     Yes.

20                  CHAIR FAVRE:    The Chair votes yes.

21                  MEMBER DE LIMA:   It's 15 yes, zero no.

22                  The motion passes.

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1                   MEMBER RICHARDSON:     The fifth and  
2                   final motion is to, again, tidy up the way the  
3                   language is written and to clarify an error. It  
4                   is the way in which moxidectin was initially  
5                   listed.

6                   So, the fifth motion says, "That the  
7                   strikethrough language be removed and that the  
8                   underlined        language        be        added        at  
9                   205.603(a)(18)(iii), moxidectin," and deleting  
10                  "for control of internal parasites only". So,  
11                  that way, it can be allowed for both internal and  
12                  external.

13                  And then, again, because we are  
14                  breaking up the three parasiticides, we repeat  
15                  "Milk or milk products from a treated animal cannot  
16                  be labeled as provided for in Subpart (d) of this  
17                  Part (iv) two days following treatment of cattle,  
18                  36 days following treatment of goats, sheep, and  
19                  other animals."

20                  MEMBER SWAFFAR:     Any discussion?

21                  MEMBER SEITZ:     Just a question. My  
22                  impression from the conversation was that

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1           moxidectin is more problematic a substance than  
2           fenbendazole. Is that correct?

3                       MEMBER RICHARDSON: You know, I guess  
4           if you were to rank them, yes, probably so.  
5           Fenbendazole is the most benign. Moxidectin and,  
6           then, way down the list there would be ivermectin.  
7           Having two of them gives you a range. It means you  
8           are not going to be stuck with just one. Again,  
9           always only in an emergency situation.

10                      And sometimes what you can do is, if you  
11           do have an emergency situation, as I think Dr.  
12           Henderson described this morning in his comments,  
13           and also we have read it, is that, if the animal  
14           is treated, again, in an emergency situation and  
15           the moxidectin doesn't appear to fix the problem  
16           immediately, the fenbendazole, then they could  
17           follow it up with the moxidectin if necessary.

18                      So, it is like having an extra tool in  
19           the toolbox. It is not used as widely as some of  
20           the other materials.

21                      MEMBER SWAFFAR: Tom?

22                      VICE CHAIR CHAPMAN: Yes, and I think

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1       there were also comments -- and other more expert  
2       people, please tell if I get this right or  
3       wrong -- that having the two different  
4       parasiticides was important at not developing  
5       resistance to the parasiticides. So, in fact, the  
6       allowance of two would potentially lower chance of  
7       a resistance issue.

8                   MEMBER SWAFFAR: Tracy?

9                   CHAIR FAVRE: Yes, and I had done some  
10       reading, which I have discussed at the fall meeting  
11       last fall, that moxidectin, while it does have some  
12       impact, it does dissipate faster than the  
13       ivermectin. And so, it is less, in fact, impactful  
14       on, for instance, dung beetles. So, while it is  
15       in a similar family, it doesn't have the same  
16       impact.

17                   MEMBER SWAFFAR: Francis?

18                   MEMBER THICKE: Also, it may depend  
19       upon what the infection is. One parasiticide  
20       might have more efficacy on one species and another  
21       one on another species. So, that gives more of a  
22       range.

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1                   MEMBER SWAFFAR:           Any further  
2 discussion?

3                   (No response.)

4                   CHAIR FAVRE:   Okay. We are ready for  
5 the vote, and we will start with Scott on this one.

6                   MEMBER RICE:    Yes.

7                   MEMBER OAKLEY:  Yes.

8                   MEMBER THICKE:  Yes.

9                   MEMBER AUSTIN:  Yes.

10                  MEMBER BUIE:    Yes.

11                  MEMBER BECK:    Yes.

12                  MEMBER SWAFFAR:  Yes.

13                  MEMBER ROMERO-BRIONES:  Yes.

14                  MEMBER DE LIMA:  Yes.

15                  VICE CHAIR CHAPMAN:  Yes.

16                  MEMBER SEITZ:    Yes.

17                  MEMBER RICHARDSON:  Yes.

18                  MEMBER BEHAR:    Yes.

19                  MEMBER SONNABEND:  Yes.

20                  CHAIR FAVRE:    The Chair votes yes.

21                  MEMBER DE LIMA:  Fifteen yes, zero no.

22                  The motion passes.

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1                   MEMBER SWAFFAR:    So, that concludes  
2                   the livestock portion, and I would like to thank  
3                   Jean and Francis for their leadership on both the  
4                   lidocaine, procaine, and parasiticides.  That was  
5                   a lot of work and I really appreciate their work  
6                   on that.

7                   CHAIR FAVRE:    Okay.  We're going to  
8                   move on into the Policy Development Subcommittee  
9                   work.

10                  Tom?

11                  VICE CHAIR CHAPMAN:  Thank you.

12                  We have two proposals for us from the  
13                  Policy, one proposal and one discussion document,  
14                  two items from the PDS.

15                  We will first start with the PPM.  If  
16                  we could go to the PowerPoint?

17                  And then, where would I find the  
18                  clicker?  Thank you.

19                  While we wait for the PowerPoint to go  
20                  up, I was curious to know if the Chair had any jokes  
21                  to tell.

22                  (Laughter.)

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1 CHAIR FAVRE: Sorry, I didn't hear the  
2 joke. I'm sorry.

3 (Laughter.)

4 I was going to say, actually, I think  
5 you should, but go ahead.

6 VICE CHAIR CHAPMAN: Yes.

7 CHAIR FAVRE: You could clean it up for  
8 the public. All right.

9 VICE CHAIR CHAPMAN: Does Member  
10 Richardson have a joke?

11 CHAIR FAVRE: Talk to Jean later.  
12 She's got a great joke about dung beetles.

13 VICE CHAIR CHAPMAN: All right. There  
14 we go.

15 All right. So, I am going to take this  
16 opportunity to walk through the proposed changes  
17 to the Policy and Procedures Manual, explain the  
18 background, work our way through public comment,  
19 and then, talk a little bit more about the changes.

20 So, a little bit of background. Why is  
21 there a revision to the PPM before us now? The  
22 current version that we have before us, the 2012

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1 version, is woefully out-of-date, I would say  
2 almost to the point of irrelevance. It hasn't been  
3 updated in four years and it doesn't match the  
4 procedures used by the Board today.

5 As a point of history, since 2002 to  
6 2012, on average, the document was revised every  
7 nine months. So, every four meetings, three of  
8 those meetings would have had a revision to that  
9 Manual. And in the last four years, it has been  
10 stagnant, not touched at all.

11 So, it doesn't current reflect our  
12 operating practices. There are sections of it  
13 that do not comply with FACA, and FACA is a  
14 requirement of OFPA. So, it conflicts with both  
15 FACA and OFPA in that sense. And it is fairly  
16 confusing, and we have to remember that there is  
17 a lot of turnover.

18 We are all lucky that at this set of  
19 meetings we're all doing positive motions. But,  
20 as we get to the fall, we will also have negative  
21 motions mixed in with positive motions. And  
22 having a clear procedure on that, it is helpful.

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1 I know that from my experience last year. You guys  
2 will experience in the fall the new members. And  
3 then, starting in 2017, we will also have another  
4 five new members. And then, ultimately, we also  
5 wanted to keep everything that has been done before  
6 that we can and move that forward to the future.

7 There's been a lot of questions about  
8 where and how this initiated. It initiated by the  
9 Chair, Chair Richardson, in 2014. And this is an  
10 email. This is everything I share here is either  
11 public record via FOIA or on our meeting notes  
12 section of the NOSB web page.

13 So, here the Chair asked the Deputy  
14 Administrator via the Executive Committee to add  
15 the Policies and Procedures Manual to the work  
16 agenda, and the NOP agreed to add it to the work  
17 agenda to allow the NOSB to lead the process and  
18 to collaborate with us.

19 So, what was the starting place for  
20 this? The starting place was previous work done  
21 on the PPM prior by previous Boards. And we  
22 started with that working document and expanded on

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1 it.

2 What was the NOP's involvement in it?  
3 Very supportive in nature, a lot of administrative  
4 assistance. This is a very large document. It  
5 required a lot of edits to it. So, oftentimes, we  
6 would discuss the wording we wanted, advise the NOP  
7 staff to make those changes, and submit them to us.  
8 They would make those changes and send it back to  
9 us, incorporating any changes from several  
10 different members and several different  
11 iterations.

12 And then, we would discuss how they  
13 wrote it up, and if it wasn't to our liking, then  
14 we would send it back again, and again, and again.

15 (Laughter.)

16 So, what was our, the NOSB's  
17 involvement? Well, we proposed the changes. We  
18 discussed them. We approved them. And we  
19 considered, since this came up in the fall for  
20 public comment, we received public comment on this  
21 document. We, then, took that back, discussed it,  
22 proposed further changes, and approved those as

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1 well.

2 This is all documented in our  
3 Subcommittee notes, and you will see there is a lot  
4 of discussion of member-proposed changes,  
5 discussions, changes, approvals, all the way from  
6 mid-2015, this one item month after month.

7 (Laughter.)

8 All right. So, it gets to the crux of  
9 the argument. This has been sent around quite a  
10 bit or questioned in public comment quite a bit.  
11 Who has authority over the Policies and Procedures  
12 Manual? And as you read the rules, we are governed  
13 by OFPA. That is why they established the National  
14 Organics Standards Board, and in that line  
15 establishing the National Organics Standard, it  
16 states "in accordance with FACA". So, OFPA and  
17 FACA, while two different laws, are actually one  
18 and the same for us because they are both there,  
19 requirements.

20 In FACA, there are statements in there  
21 about how advisory committees are managed. "The  
22 CMO is to exercise supervision over the

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1 establishment and procedures and accomplishments  
2 of the advisory committees." Procedures is pretty  
3 clearly laid out there in FACA and the authority  
4 with the CMO.

5 That being said, the way the NOSB has  
6 acted over the last multiple years, decades,  
7 multiple decades, decades anyway, is, by  
8 tradition, the NOSB has had complete and sole  
9 authority for the most part over the PPM until  
10 recently.

11 I would say that everyone is developing  
12 and improving with time. Some of us are better  
13 with procedures than others. We haven't always  
14 complied with all the rules above, with OFPA and  
15 FACA, as well as it should have been. And I think  
16 there is a greater awareness of all the  
17 requirements under FACA than there has been before.

18 That being said, to the PPM reduce the  
19 NOSB's authority and independence? To that, I  
20 would say it brings the PPM into compliance with  
21 FACA and, therefore, OFPA, which is critical.

22 And the PPM, it is important to

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1 remember, is only authoritative on the NOSB, the  
2 15 members here that vote. So, no matter what we  
3 put in there, it doesn't make it binding on other  
4 parties. It doesn't make it binding on the NOP.  
5 It doesn't make it a law. It doesn't change OFPA.  
6 It doesn't change FACA.

7 But one of the important things about  
8 all these revisions here is that it does remain the  
9 NOSB's authority to approve the PPM, and it sets  
10 a very collaborative nature with the NOP and  
11 acknowledges our mutual roles and respect for each  
12 other and the positive intent that we have working  
13 in the organic community.

14 So, clearly, from the public comments  
15 and everything we heard today, you can tell that  
16 there is a lot of ambivalent perspectives on this  
17 document. There is a tension between tradition  
18 and compliance with OFPA and FACA. There is some  
19 tension between keeping historical and current  
20 wording to matching our current operations. The  
21 document is in some degrees aspirational versus  
22 accurate, and there is a tension there. There has

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1       been a perceived tension between independence and  
2       collaboration.

3               As everything is in the organic  
4       community, it is very complex. So, there is a  
5       request for the NOSB to act in protest versus  
6       compromise in regards to certain actions that we  
7       may or may not agree with.

8               But the objective of this PPM revision  
9       was to make a PPM that complies with OFPA, complies  
10      with FACA, is approved by us as well as the agency  
11      that we advise and the Secretary. It accurately  
12      reflects our current operating procedures. It  
13      fosters transparency and public participation.  
14      It reflects and builds upon the past versions of  
15      the PPM. It has a logical structure with correct  
16      grammar, which I don't know why I was put in charge  
17      of this Subcommittee because I have the worst  
18      grammar of anyone I know.

19              And it fosters a continuous  
20      improvement. This version is not the last version  
21      of the PPM. I anticipate it going along the lines  
22      of how it had from 2002 to 2012, as a document that

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1 is continuously improved upon.

2 So, getting into the public comments,  
3 the cites are kind of color-coded a little bit. I  
4 have quotes from the public input on major subject  
5 areas. I kind of will discuss a couple of the  
6 teasing-out of what was said.

7 Then, if you see a red slide, it is  
8 usually either from FACA or OFPA or it is guidance  
9 from the General Services Administration, GSA.

10 Did I get that right? Yes.

11 And if it is blue, then it is what is  
12 in our proposal.

13 We received something like 800  
14 individual comments, several comments from public  
15 interest groups, several comments written, and  
16 then, one comment from a distribution company.

17 So, the first theme I want to address  
18 in public comments was the NOSB and the PDS's  
19 authority and ability to approve and revise the  
20 Policy and Procedures Manual. I received several  
21 comments from the public in this area.

22 The proposed rule adds a new section,

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1 Section 9, although there was some similar verbiage  
2 to this in the intro. But in Section 9, it states,  
3 "Proposed changes will be subject to review and  
4 approval by the NOP and the full NOSB." So, it  
5 acknowledges that both our Board as well as the NOP  
6 need to agree to this document.

7 Under OFPA and FACA, again, FACA is  
8 required in OFPA. You will hear me say that line  
9 a lot.

10 The CMO has the ability to exercise, has  
11 the requirement to exercise control and  
12 supervision over the procedures of its advisory  
13 committees. That is why we put this section in  
14 here. It makes sense to have the NOP in there as  
15 well as us.

16 In the NOSB/NOP collaborative area, we  
17 received substantial comment from the public  
18 saying that it had become less collaborative. The  
19 comments here were extensive and wordy. But, to  
20 boil it down -- and I probably will miss a few  
21 points -- there was a lot of discussion of  
22 bureaucratic constraints, such as financing,

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1 costs, to pay for or to prioritize actions taken  
2 by or approved by the NOSB, about actions on our  
3 advice or recommendations given to the program,  
4 about whether or not we are consulted on various  
5 areas of the program.

6 There was a little bit, back again,  
7 about our ability to change our own procedures and  
8 whether or not we could bind the program to  
9 contract, fund things, make staffing decisions.

10 So, what the Policy and Procedures  
11 Manual does in this section makes it clear and cites  
12 all the regulatory or all the operating legislation  
13 above us, the OFPA and FACA sections of the rule.  
14 Throughout the document you will see a theme of us  
15 reasserting OFPA and FACA and our compliance with  
16 that, as well as the Government in the Sunshine Act.

17 And it does have the statement that we  
18 cannot bind or obligate funds, contract, or make  
19 NOP staffing decisions. Now I will talk about the  
20 Staff Director a little bit later. So, I am going  
21 to set that one aside, the Staff Director in  
22 particular, but I will talk about NOP staffing

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1 here.

2           And then, to obligate funds, it is  
3 important to note that OFPA itself does not, did  
4 not come with any appropriations. There is a lot  
5 of historical debate around this item, and the  
6 Senate bill had appropriations in it; the House  
7 bill did not. In the Senate Conference Committee,  
8 the House version was accepted and appropriations  
9 were pulled out of the bill. There are no  
10 appropriations given to the NOSB.

11           So, I have a hard time finding how we  
12 can obligate funds that we do not have. We have  
13 a bank account of zero, an account for zero dollars.

14           Down at the bottom, I also wanted to  
15 emphasize this point. We added the line,  
16 "Similarly, the NOP, as required through OFPA, must  
17 consult and collaborate with the NOSB." We have  
18 accentuated throughout this document that our role  
19 is to advise the Secretary, and that they must  
20 consult with us and collaborate with us on all these  
21 items.

22           And we a whole bunch of -- I mean, again,

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1 it is on that same theme of collaboration and  
2 working together. It just extenuates our role and  
3 the NOP's role. The same Act created both us and  
4 the NOP, and we both function best when we function  
5 together.

6 So, the rules that support this, as OFPA  
7 states, you know, that the Secretary shall consult  
8 with the NOSB. Our role is to assist and to advise,  
9 as well as our statutory authority over the  
10 National List.

11 But, when it talks about staff -- and  
12 this why I wanted to pull out this one cite -- so,  
13 the ability of us to dedicate staff, OFPA actually  
14 states specifically that that is an authority of  
15 the Secretary. So, the Secretary shall detail  
16 staff of the Department of Agriculture or allow for  
17 the hiring of staff, but that is the decision of  
18 the Secretary, subject to the necessary  
19 appropriations, and pay necessary expenses  
20 incurred by such Board in carrying out the  
21 provisions of this Chapter, as determined  
22 appropriate by the Secretary.

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1           So, the Secretary has authority to  
2           issue funds. The Secretary has the authority to  
3           pay for the items if it deemed necessary by the  
4           Secretary and the funds are available.

5           Furthermore, FACA describes again  
6           controls over the policies and procedures of it.  
7           I don't need to go into it because I have read it  
8           in previous sections already.

9           So, work agendas was another item that  
10          came up substantially. Public comment was quite  
11          clear that they wanted NOSB sole authority over the  
12          work agendas and work plans, as they were formally  
13          called.

14          And again, in this section, OFPA  
15          requires compliance with FACA, and FACA is  
16          explicitly clear that the Designated Federal  
17          Officer shall approve the agenda.

18          On the work agenda proposal, however,  
19          it offers a very collaborative and middle road  
20          comparative to where we used to be versus what FACA  
21          states can be done, which is that it gives several  
22          routes for agenda and work agenda items to come

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1 forward before the Board. And that is from the NOP  
2 as well as from the NOSB, as well as from public  
3 comment.

4 And then, it puts some scope, it puts  
5 some requirements on those. And one of those is  
6 to put clarity on how and where these things are  
7 coming from. So, one of those is scope, which I  
8 want to emphasize here that this actually is a very  
9 good change, which I think a lot of people overlook.

10 In addition, the public may submit  
11 comments to the NOSB and write to the NOP for  
12 potential additions to the work agenda for the  
13 NOSB. The work agenda items may emerge from  
14 discussions on current issues.

15 The section on this work agenda item  
16 focuses on and emphasizes the fact that these will  
17 come from the Board and from the public. It also  
18 talks about the priority of these items, and it is  
19 something that the NOP can implement within a  
20 reasonable timeframe as well as speaking for clear  
21 need. And again, this is a section that oftentimes  
22 was not liked by the community, but, actually,

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1 meets a lot of our needs. In the sunset, it says,  
2 "Clear need from the NOP or community for which new  
3 or additional information or advise is needed."  
4 So, it is looking for a clear need from the organic  
5 community, not just the NOP.

6 So, then, as it goes on, it also details  
7 the process by which this is approved and added,  
8 and it prioritizes the way proposals are done.  
9 But, again, as we do throughout this document, we  
10 emphasize the NOSB process and the NOSB's role in  
11 providing work agenda items.

12 And then, we go on to detail various  
13 types of possible work agenda items, including  
14 materials, changes to annotations, modifications  
15 to standards or new standards, advice on NOP  
16 policies, compliance and enforcement activities,  
17 as well as management and review of the NOP.

18 Another section that received a lot of  
19 public comment was conflict of interest,  
20 particularly around a topic of interest for Board  
21 members. In fact, OFPA requires compliance with  
22 FACA. In FACA, it directs the GSA Administrator

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1 to prescribe administrative guidelines for these  
2 types of issues, as well as provide us advice to  
3 be able to implement our roles and duties as an  
4 Advisory Committee.

5 The GSA offers specific guidance on  
6 ethics and conflict of interest. We are  
7 classified as representatives. And as  
8 representatives, it pretty much puts no obligation  
9 on us in terms of conflict of interest. However,  
10 it has a statement that, if we choose to  
11 globally -- if it is implemented globally across  
12 the standard, then the standard for special  
13 governmental employees can be applied to  
14 representatives.

15 And that is what has happened in our  
16 case. The requirements for conflict of interest  
17 is the conflict-of-interest requirements for  
18 special government employees, and it details them  
19 in specific detail, about direct disproportional  
20 conflict benefits to individuals, conflicts that  
21 could impair judgment or objectivity, and the  
22 potential for an unfair competitive advantage.

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1           It notes that we are appointed to  
2 represent our interests. And then, it lays out the  
3 method by which we do our conflict-of-interest  
4 disclosures in great detail. That is done by,  
5 instead of ad hoc here at the meeting, it is done  
6 prior to the meeting, two to four weeks in advance.  
7 It is circulated amongst the entire Board, and  
8 everyone discloses the conflicts of interest on the  
9 voting items before. And then, that is  
10 accumulated and sent out to the entire Board and  
11 becomes part of the public record, if it is part  
12 of the Board. Any conflicts of interest that there  
13 are will be disclosed at the time of voting.

14           So, just to emphasize that, under the  
15 requirements of the GSA, there are virtually no  
16 conflicts of interest, and instead of going with  
17 no, we opted up a level to the special government  
18 employees, which provides substantial guidance on  
19 conflict of interest.

20           The Advisory Committee Specialist and  
21 Staff Director, there were several comments about  
22 this and in two different regards, one about the

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1 NOSB's authority to hire a Staff Director and one  
2 in the theme of changing some of the requirements  
3 that we have for the Advisory Committee Specialist,  
4 formerly called the Executive Director.

5 And in this regard, OFPA does clearly  
6 state that the Secretary shall authorize the Board  
7 to hire a Staff Director. That is unequivocal.  
8 That is quite clearly stated in OFPA. I do not  
9 disagree with that.

10 To give some history on the Staff  
11 Director, I combed through history from the NOSB  
12 minutes from 1992 to today, and there was some  
13 interesting history in there. So, in May 1993, Hal  
14 Ricker, who was the first USDA person in charge of  
15 things -- that's his official job  
16 description -- was referred to in the May 1993  
17 minutes as a Staff Director. It is important to  
18 note that he was not hired by the NOSB.

19 In April 1995, they stopped referring  
20 to him as the Staff Director and started referring  
21 to him as a Program Leader. Then, in 1996, he  
22 became Program Manager, which several people are

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1 probably familiar with that title. That one stuck  
2 around for a while.

3 In 2002, calls from the public started  
4 to be made in regards to that section of OFPA that  
5 required or that allowed the NOSB to hire a Staff  
6 Director. In 2004, appropriations were made in  
7 the NOSB FACA budget, enlarged for the hiring of  
8 a Staff Director.

9 And in the October 2014 minutes,  
10 Barbara Robinson, who was the AMS Deputy  
11 Administrator for Transportation, Transportation  
12 Marketing, came and talked before the NOSB Board  
13 about the hiring of a Staff Director. If you look  
14 at those minutes, what you will see, what she states  
15 to the Board, that it must be a federal employee  
16 supervised by a federal employee. They cannot  
17 directly at the direction of the Board, but they  
18 wanted this role to fulfill the Staff Director role  
19 as much as possible. And so, they would highly  
20 collaborate with the NOSB on this role.

21 They took a job description which was  
22 standard AMS job description for Board Specialist,

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1 along with the Draft Job Description from the USDA  
2 for the Staff Director, and combined them together.  
3 This is also where the name Staff Director got  
4 changed into Executive Director. They  
5 specifically asked the NOSB, "Do you want to call  
6 the Staff Director or do you want to call it the  
7 Executive Director?" And they clearly said, "We  
8 want it to be called the Executive Director."

9 In all things government, that was  
10 October 2004. In August of 2005, one year later,  
11 a Job Description was finalized and finally posted.  
12 And then, six months later, someone was finally  
13 hired. So, two-and-a-half years later, Valerie  
14 Frances was announced as the Executive Director,  
15 and at the same time Katherine Benham was hired as  
16 the Advisory Board Specialist. It was a role  
17 supportive of the Executive Director.

18 In October of 2010, Lisa took over that  
19 role and replaced Valerie. In 2011, Katherine  
20 Benham transferred out of the AMS, and that  
21 position was not refilled. And around the same  
22 time, Lisa A. transitioned roles within the NOP.

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1           In November of 2011, Lorraine Coke  
2 filled that role of Board Specialist and the  
3 Executive Director temporarily. And in May 2012,  
4 Michelle was -- I mean, she might have been hired  
5 before; these dates are based on minutes -- in May  
6 2012, Michelle was announced as the Advisory Board  
7 Specialist, and that was a new USDA job title for  
8 that Executive Director Job Description.

9           In April 2013, calls from the public  
10 started again for a Staff Director. At this point,  
11 it was asserted that that Staff Director was  
12 actually what is now the Deputy Administrator's  
13 job, not the job that Michelle now holds.

14           So, that is kind of the history through  
15 the minutes. It is quite clear that this is a  
16 somewhat-sloppy section of the areas.

17           There has been a lot of call for us to  
18 assert in the Policy and Procedures Manual that we  
19 have a Staff Director and that we hire the Staff  
20 Director. But, again, at this time, we have no  
21 funds to do it. Us putting it in here and getting  
22 it approved does not make it so. And I wanted it

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1 to reflect reality.

2 The moment we have the funds to hire our  
3 own Staff Director, if we wanted to, the PDS would  
4 take up without issue and a Job Description in no  
5 time. That being said, it is quite clear that the  
6 Advisory Committee Specialist role that we have now  
7 was designed to fulfill that role, whether or not  
8 it was hired by us.

9 Moving on from the Staff Director,  
10 there was a comment about us removing the line -- it  
11 is the most important job of the Executive Director  
12 is to defend the independence of the Board. We did  
13 take that line out. We just got through talking  
14 about a bunch of conflicts of interest. I cannot  
15 think of a greater conflict of interest than to have  
16 someone hired by the NOP defend the authority of  
17 another organization as part of their job. I mean,  
18 you are asking them to, basically, go against their  
19 own boss. They have a financial interest there by  
20 its being their job.

21 What we did do was add the words "ensure  
22 all FACA and OFPA requirements are implemented,"

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1 and that details clearly all the requirements of  
2 the NOSB and its role here. And so, we feel like  
3 that clearly covers that section.

4 I also want to note that it is of  
5 importance to everyone, the community -- clearly,  
6 you guys take that as very important because we  
7 heard in public comment -- as well as the Board  
8 itself to defend its own independence. We can't  
9 rely on an Advisory Committee Specialist to do that  
10 for us. That is a role that is placed on us in this  
11 regard.

12 Access to public information was  
13 another common theme. Although we did get some  
14 slight praise in this area, there is still a lot  
15 of criticism around FACA implementations of public  
16 information access and disclosure and  
17 transparency. And there were accusations that our  
18 PPM restricted access to publication beyond FACA's  
19 requirements.

20 So, to review the sections of FACA  
21 related to public disclosure, it clearly states the  
22 documents, which pretty much is everything that

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1 comes before the Board, are available to be  
2 FACA'ed. And we put that word for word into our  
3 PPM.

4 It also states, though, that "shall be  
5 available" -- it gives a location for those  
6 documents, and "shall be available for public  
7 inspection, copying, at a single location in the  
8 Office of the Advisory Committee or the agency to  
9 which the Advisory Committee reports until it no  
10 longer exists." So, it also has clear guidance on  
11 where to get that information via FACA.

12 Beyond that, it also clearly lays out  
13 that the person in charge of making sure that  
14 information is available and maintained is the  
15 Advisory Committee Management Officer, not the  
16 Board itself.

17 And then, further in the GSA guidance,  
18 it specifically states that representative members  
19 are reminded that non-public information should  
20 not be released to the public without permission.  
21 Part of that is so that it goes through the entire  
22 FACA and FOIA review to make sure that only

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1 appropriate information is released.

2 So, what does our PPM say in this  
3 section? Well, first of all, I want to note that  
4 in the recordkeeping section we made it clear that  
5 we want transcripts of our full Board meetings,  
6 which is not a FACA requirement, but every word I  
7 say, every "uh" will be in the record, a lot of  
8 "Uh's".

9 (Laughter.)

10 Some transcriptionists actually drop  
11 the "Uh's". So, I appreciate that. Let's do that  
12 this time.

13 (Laughter.)

14 So that we have greater transparency  
15 into what occurred in those meetings, so that  
16 people like me can comb through the records all the  
17 way back to 1992.

18 We also copy word for word the FACA  
19 requirements, like I said, for accessibility of  
20 those documents. We also copy into the sections  
21 about FOIA and make explicit that the only thing  
22 preventing release of information is the FOIA

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1 exemptions. That's the FOIA information.

2 In addition to this, under the  
3 additional standards of conduct section, we put in  
4 two lines about Board members and the release of  
5 information. This is to comply with that section  
6 of the GSA guidance that members shouldn't do it.  
7 It is also to make sure that, when information is  
8 released to the public, it is done via the FACA and  
9 FOIA process appropriately, as prescribed in FACA  
10 or FOIA, as applicable.

11 That is not a role that is done by Board  
12 members. It is a role that is done explicitly as  
13 described in FACA. I will move from there.

14 Sunset voting procedures. This is  
15 probably the one that most people are concerned  
16 about here.

17 So, there was a lot of comment received  
18 that we shouldn't make any changes to the sunset  
19 sections while a lawsuit is pending against the  
20 program. And there was a lot of comments saying  
21 that this is an acceptance of the Board of the  
22 changes made in 2013.

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1           What does our proposal actually say?  
2           Well, we start off by citing OFPA and what OFPA says  
3           about sunset. We thought that that was very  
4           important to start anywhere where the authority was  
5           first written and given by Congress.

6           We follow that by citing the memo from  
7           the National Organic Program that we are currently  
8           operating under from September 16, 2013. At the  
9           end of that section, a sentence is in there that  
10          is very important that says, "The NOSB observes the  
11          following procedure:" I want to emphasize this  
12          one. The sentence wasn't put in there by accident  
13          and wasn't put in there sloppily. It was  
14          specifically put in there. "The NOSB observes the  
15          following procedure:"

16          Look up the definition of "observes,"  
17          and it is to comply with an obligation. I want to  
18          say that that is the intent of this. It is not to  
19          accept, to approve, to support, to endorse. It is  
20          none of those words related the 2013 memo from the  
21          program. It is just to comply with an obligation.

22          Several materials have come before the

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1 Board for voting related to sunset. I think this  
2 is now in the fourth cycle since the 2013 memo, and  
3 the Board has adopted a procedure because the Board  
4 wanted items to have a vote. To do that, we have  
5 these motions to remove, and that results in  
6 motions to remove that are kind of sloppy, that are  
7 a little weird, a little hard to understand,  
8 especially when they are intermixed with motions  
9 to approve or list.

10 And having clear procedures that Board  
11 members understand and can vote on is very  
12 important. It is about outlining those  
13 procedures. It is not about accepting, approving,  
14 supporting these changes.

15 You can have objections to the changes  
16 and still support the procedures we're operating  
17 under now. And those procedures are outlined  
18 here.

19 It also, at the same time, is talking  
20 about the motion to remove, which is right here.  
21 "When presented to the full NOSB, the reviews will  
22 contain a motion and a second from the

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1 Subcommittee, and the motions for removal will be  
2 based on preliminary review." It goes on with  
3 that, but it puts the motion to remove in there and  
4 requires a vote on all sunset materials.

5 It also has the public comment review,  
6 which I think after we have gotten it under our  
7 belt, it actually isn't seen as a great positive  
8 move in this regard.

9 Minority view and opinion. There was  
10 a change to the minority opinion. We moved it to  
11 minority view, in line with what is in Robert's  
12 Rules. Robert's Rules actually calls it a  
13 minority report, but that was an awful movie with  
14 Tom Cruise.

15 (Laughter.)

16 So, we decided to go with the word  
17 "minority view".

18 A lot of this section here was to  
19 clarify and to bring closer-in the dissenting  
20 opinions. What that means is to say is, when we  
21 put forward a proposal, we want that proposal to  
22 represent all views when possible. Clearly, we

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1 are a passionate bunch of folks, and there are times  
2 when we are so passionate that we can't put all of  
3 our ideas in the same proposal, even if we are  
4 voting on it. But, oftentimes, we have been able  
5 to do that. Oftentimes, you will see in the most  
6 recent reviews a discussion of all opinions on the  
7 items as well as the vote, and why people voted  
8 different ways. It can be done. It is currently  
9 being done by our Board. And it is just clearly  
10 outlining the method of doing this and  
11 incorporating it into our documents.

12 There is an often-quoted section of a  
13 quote from Kathleen Merrigan. And I went back to  
14 that Senate Committee meeting and took the full  
15 paragraph here. And I just wanted to emphasize the  
16 entire context of the line that is often quoted  
17 because the quote that we get was just talking about  
18 the NOSB's role as a gatekeeper, which she did say  
19 clearly here in relation to substances.

20 But she also noted that the whole point  
21 of the NOSB was to create a valid consensus amongst  
22 diverse stakeholders. And we think the minority

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1 view emphasizes the consensus section. It doesn't  
2 mean we all have the same opinion. It means we  
3 can all put it in the same document, get along, have  
4 a discussion of varying viewpoints, and then, come  
5 to a vote on it.

6 Moving on -- and it will be quicker here  
7 because we are starting to run out of FACA areas,  
8 and it is more policy areas -- but conflict of  
9 interest for technical reviews, this one was a fun  
10 one. So, in this area we have had a lot of calls  
11 to have the Board review the individual people who  
12 do the technical reviews.

13 In the Policies and Procedures Manual,  
14 we clearly outline requirements for conflicts of  
15 interest. This is not at all existing in the  
16 previous version in the PPM. This is an addition  
17 to it. And I do question how much of the public  
18 access the Federal Acquisition Records because  
19 that link right there doesn't work, and we got no  
20 comments telling us that that link right there  
21 doesn't work.

22 But, if you go through and you find FAR

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1 Subpart 3.1101, this is what it says, and it is  
2 quite extensive and detailed in regards to  
3 conflicts of interest of contracting parties as  
4 well as their employees. It speaks to the  
5 definition of personal conflicts of interest.  
6 Then, it goes on to define them as financial  
7 interests of the employees, close family members,  
8 or other members in the employee's household, other  
9 employment or financial relationships that that  
10 employee has or gifts, including travel, that they  
11 receive.

12 Beyond that, it begins to give examples  
13 such as compensation for business referrals,  
14 consulting relationships, services provided in  
15 exchange such as honorariums or travel, research  
16 funding, investments, real estate investments,  
17 patents, copyrights, other intellectual property,  
18 and business ownerships. It is extensive, the  
19 requirements under FAR.

20 Moving on -- see, now I am combining two  
21 slides into one; I'm speeding it up for you  
22 there -- electronic participation, we received

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1        comments on this stating that the conditions under  
2        which electronic participation needed to be made  
3        clear. The sentence that we added to the PPM says,  
4        "In cases of medical situations preventing  
5        attendance of a person, a virtual person is  
6        permitted."

7                        In the Subcommittee's opinion, in cases  
8        of medical situation preventing attendance of a  
9        person was fairly clear. The situation of  
10       electronic participation was clear. And so, we  
11       did not make any changes to this section.

12                      Public comment asked that the NOSB  
13       authority over the National List was not clearly  
14       stated in the introduction particularly. I'm sure  
15       the introduction does say that we just propose  
16       amendments to the National Lists. But, then, if  
17       you go down to Section 1.C, then it says we also  
18       review petition materials for inclusion in or  
19       removal from the National List.

20                      And then, if you go to III.E, it speaks  
21       of our statutory authority related to the  
22       recommendation of materials as approved in the

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1 prohibited substances for inclusion on the  
2 National List. And if that wasn't enough, we have  
3 it yet again under III.F.

4 Nothing in the PPM is precluding our  
5 ability or our authority over the National List as  
6 prescribed in OFPA.

7 There is also public comment saying  
8 that it was unclear if Robert's Rules was used.  
9 So, we do have a section on parliamentary  
10 procedure. It is actually unclear because we  
11 stuck with the history of the PPM on here, of which  
12 Robert's Rules was adopted in 1992. And then, it  
13 was bona fide as being non-mandatory in 1993, just  
14 a year later. So, we kept that through there, and  
15 we noted all the items that we operate under.

16 There has been public comment about our  
17 changing the section on voting, which does not  
18 mandate a type of voting on roll call voting. And  
19 the new proposal says, "Voting may be by a show of  
20 hands, roll call, or by use of modern voting  
21 devices." We hope that one day we have those cool,  
22 little buttons that we can just push, and it has

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1 our name and a light that shows it all for  
2 everybody.

3 I would like to note that, as I was  
4 combing through all these meeting minutes, even if  
5 a roll call vote had been done in the past, it wasn't  
6 always recorded in such a way to make it clear or  
7 any more clear than a hand vote, show of hands, yes.

8 And here's an example from the minutes  
9 in which Barry Flamm called for a vote. I do know  
10 on this item that Member Richardson voted no, and  
11 then, I have 13 votes that I don't quite know,  
12 except for the one that says, "No, sir." I have  
13 a good guess who that one was. And then, I know  
14 how the Chair voted on it. So, the voting record  
15 just gives the roll call votes. It wasn't always  
16 a clear record, either.

17 But I do want to note that we maintain  
18 a voting record. It is often handed out as a favor  
19 to members of the public. There are several  
20 members of the NOSB that keeps this. This one for  
21 our most recent meeting is under the AMS FOIA  
22 Reading Room for anyone to access.

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1           And even if we are having a show of  
2 hands, under Robert's Rules, any member can request  
3 a roll call vote at anytime. And that occurred  
4 several times during that meeting. Anytime a roll  
5 call vote was called for, it had occurred.

6           We maintained this section because  
7 there are times when our agenda is long and there  
8 are a lot of items to vote. And as you have seen  
9 on the items we have already voted on, there is a  
10 lot of consensus in this community on a lot of  
11 items. And it takes a lot of time to go through  
12 roll call votes. So, in respect for the  
13 volunteers' time, when it makes sense to do shows  
14 of hands because we may have a lot of matters  
15 pressing before the Board, we will move to that  
16 section. But it is not to obfuscate or make  
17 unclear who votes on what.

18           So, I just wanted to highlight some  
19 other important changes that didn't get as much  
20 attention in the public comments. Some people did  
21 comment on some of these items. Some of these just  
22 got missed.

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1           But we now allow for webinars for public  
2 comment to expand how we take in comment from the  
3 public and to widen how we can interact with the  
4 community, even those who cannot access us here or  
5 wherever we travel to for our meetings.

6           A really great section on the  
7 prohibition of withdrawals of petitions already  
8 reviewed by the Subcommittee. This is a very  
9 frustrating rule we don't operate under now. But,  
10 up until it goes to a vote, the petitioner can  
11 withdraw an item, even if the vote is not going the  
12 way they think they want it to go. And so, all the  
13 work done by the NOSB then goes kind of for naught.  
14 This, once it gets voted by the Subcommittee, it  
15 can no longer be withdrawn by the petitioner.

16           This establishes conflicts of interest  
17 for technical reviews, which were not in the  
18 previous version of the PPM. It describes the  
19 roles of the Subcommittee. It establishes GMOs as  
20 a purpose of the Materials Committee. It  
21 establishes research priorities as a purpose of the  
22 Materials Committee. And it is a logical,

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1 flowing, grammatically-correct document.

2 We also received lots of public  
3 comments on areas that we didn't touch that would  
4 be great topics for us to pick up and proceed with  
5 in the next semester. I will run through some of  
6 these very clearly.

7 But it was a call to make sure that our  
8 rules of order in order of preference were  
9 outlined.

10 It asked for more guidance and detail  
11 on the level of timeliness of Subcommittee notes.

12 It asked for us to adopt a public  
13 communications policy from 2012.

14 It wanted us to define certain terms  
15 that we use throughout the document.

16 It wanted us to issue guidance to the  
17 Secretary on appointments of members to the NOSB.

18 It wanted clarity around voting and  
19 elections of officers.

20 It wanted the -- actually, I added this  
21 myself -- voting record as part of the minutes, just  
22 to make it explicitly clear that this voting record

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1 is well-maintained, gets published at the same time  
2 that the minutes do.

3 I am down to like five slides. I'm  
4 going. I'm going.

5 Clarification of the roles of the DFO  
6 and the Community Management Officer.

7 Publication of voting records with the  
8 meeting transcripts. I doubled that one up.

9 Minutes for the administrative team.  
10 Meeting minutes. That we completely comply with  
11 all sections of FACA. There is a section that is  
12 not in either version talking about documents  
13 provided to the Committee should be published as  
14 well as part of the minutes.

15 There was a call to add a memo from the  
16 General Services Administration that clearly  
17 outlined the requirements of FACA to CMOs. That  
18 is not us. That is the Community Management  
19 Officer, about release of FACA information. But,  
20 again, we are a very transparent Board. We support  
21 FACA and its requirements, and I think this is a  
22 good addition that we should consider.

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1                   Timing of public comments and  
2 publications, as well as the hiring of a Staff  
3 Director.

4                   So, in summary, several slides later,  
5 again, it is about balancing of these tensions.  
6 Nothing is perfect. The objectives are these.  
7 The Subcommittee thinks we have achieved them.

8                   And it is a balancing, when you look at  
9 this, I mean, it is like a Venn diagram. You've  
10 got compliance with OFPA and FACA. That is pulling  
11 us in one way. We have consistency with tradition  
12 and history. That is pulling us another way.

13                   And we need a document that prescribes  
14 and describes our operating procedures. There is  
15 a tiny, tiny triangle there in the middle that we  
16 are hoping will be proposed PPM.

17                   That's all I've got at this time.

18                   (Applause.)

19                   With that, the PPM comes before the  
20 Committee as a seconded motion from the  
21 Subcommittee. It was moved by myself and seconded  
22 by Jean -- Tracy, seconded by Tracy.

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1 I do want to address one more item,  
2 which was there has been calls to ask, can we put  
3 this off for yet another meeting and vote on it in  
4 the fall? I do not support that at this time, and  
5 I will give you my reasons why. It is twofold.

6 One is the comments from the first  
7 meeting to the second meeting were substantially  
8 similar. We have now addressed them twice. I  
9 don't know why we would think comments this third  
10 time would be substantially different. This  
11 document is not a final document. We will continue  
12 to revise it and improve it as time goes forward.

13 And ultimately, in the fall there will  
14 be a new Administration elected, and we don't know  
15 who that Administration will be. Right now, we do  
16 know who the Administration is, sitting two people  
17 down from me.

18 And this is a document that we have all  
19 agreed upon. It is one that we can pass and approve  
20 and set into motion immediately.

21 The second issue I have is, as we had  
22 the excluded methods folks here on the panel, I was

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1 thinking to myself, man, we really saddled Zea with  
2 a lot of work and we haven't done our fair share  
3 on this. And I was thinking to myself, why haven't  
4 I done my fair share on this? And it is because  
5 I have been spending too much on that document and  
6 those 80 slides.

7 I want to get back to doing the work of  
8 this Board, which is excluded methods. It is  
9 reviewing all the comments we got on carrageenan  
10 and substances. It is about taking on these new  
11 items we have before us. It is about the  
12 evaluation of inspectors and whether or not that  
13 procedure is appropriate. I want to get back to  
14 that stuff. I don't want to spend more time  
15 digging into areas that we have already discussed  
16 and addressed.

17 So, with that, I will now open the  
18 discussion and I will stop talking.

19 Let's see. Harriet? Then, Jean.

20 MEMBER BEHAR: Well, I'm going to vote  
21 for this because I want to honor the tremendous work  
22 that has happened here on the Board. But, also,

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1 in discussion that there is acknowledgment that  
2 this is a living document and that I will be able  
3 to give some input and do some tweaking, which we  
4 all know it still needs.

5 VICE CHAIR CHAPMAN: Thank you.

6 MEMBER RICHARDSON: Yes, I shall be  
7 supporting this document. I started on the Policy  
8 Development Subcommittee as a newbie  
9 four-and-a-half years ago and spent a year on that.  
10 It was a bit frustrating and I asked to go off it,  
11 although I continued to work through the  
12 Subcommittee periodically.

13 And certainly, what I see now coming out  
14 of this -- and I am presently on this Policy  
15 Subcommittee as well, and for a few minutes I was  
16 Chair of it a couple of years ago -- I see this as  
17 a living document. I think it is critically  
18 important that we pass it today. I don't agree  
19 with every section of it or every sort of phrase  
20 in it, but I think it is a terrific advance over  
21 what we have had before.

22 I think that it demonstrates that, in

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1 fact, we have strengthened the collaboration  
2 between the NOP and the NOSB, although it is not  
3 something that just happens naturally. You have  
4 to keep working at it.

5 And so, I am just delighted that we have  
6 gotten this far with it and thank Tom very much for  
7 his leadership the last few months in putting these  
8 bits and pieces together.

9 Thank you.

10 VICE CHAIR CHAPMAN: Yes. So, I am  
11 going to go with myself. Then, I have Tracy,  
12 Francis, and Zea.

13 I wanted to mention one point I left off  
14 my slide which I think is going to be Zea's question  
15 here anyway. Under the conflicts of interest,  
16 there is a line in there that speaks about that you  
17 shall not receive compensation for speaking,  
18 writing, or discuss teaching for your Board,  
19 related to your Board responsibilities.

20 That is a section taken -- again, that  
21 was word for word, these sections were taken from  
22 guidance set for special government employees. We

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1 have discussed this with the program, and as  
2 members of the Subcommittee, it is not meant to mean  
3 that I, as an employee of Clif Bar, I guess, I get  
4 paid a salary. And so, while I am here, my salary  
5 is still paid. There is not a way for me to -- I  
6 don't even know how to stop besides getting fired.  
7 I don't know how to stop getting paid. It just  
8 happens.

9 And so, like I am compensated for my  
10 time on the Board. It is not meant in that regard.  
11 It is meant in the regard, if an organization had  
12 a substance before the Board, invited me to a Boca  
13 Raton, Florida retreat to speak on the item that  
14 was all inclusive, that that was not an appropriate  
15 duty of the Board.

16 We understand that the wording is not  
17 explicitly clear and we will be taking that up as  
18 well in this next revision. We will be taking it  
19 up in the next revision to make it explicitly clear.  
20 It is still in there as the overall substance, and  
21 it is on us because it is part of the ethics guidance  
22 that we have received so far. But it is not

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1 enforced in the method of being on people who get  
2 a salary as part of their participation, part of  
3 the Board.

4 So, we had Francis, then Zea. Sorry,  
5 Tracy, Francis, Zea, yes, okay.

6 CHAIR FAVRE: Okay. Like Jean, I was  
7 Chair of this Subcommittee for a little bit. I  
8 just want to say that I found the process to be very  
9 collaborative with the program. There was a fair  
10 amount of push and pull on some of the discussion.

11 I think it was Ayn Rand who said that,  
12 "Compromise means basically nobody gets exactly  
13 what they want." I suppose that is at least  
14 somewhat true on some of the things in here.

15 But I will say there was not a single  
16 thing in this document that we were forced to put  
17 in here by the program. And I completely and  
18 utterly reject the contention that we are  
19 rubberstamping anything that the program has  
20 mandated that we put in here.

21 VICE CHAIR CHAPMAN: Francis?

22 MEMBER THICKE: Well, I certainly

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1 appreciate all the work you have all put into it,  
2 and it was a lot of work that your Committee did.

3 And a lot of things I can support.  
4 However, I do have some concerns. Ideally, I would  
5 liked to have been able to vote in division out on  
6 major changes, as has been done in the past.

7 There are some parts, major parts, I can  
8 support; for example, changing the sunseting  
9 procedures in the manual when that is in  
10 litigation. And so, for that reason, I am going  
11 to be voting against it.

12 MEMBER SONNABEND: So, I do support  
13 most of the document. I, however, am not on  
14 salary. I am paid a small amount for a small amount  
15 of the writing I do in preparing proposals and for  
16 the time I spend here speaking.

17 I am really grappling with how I can  
18 vote for something that literally says that I am  
19 violating it already and have been the whole time.  
20 So, I can't vote for that sentence. I just don't  
21 think I can, even if you say it doesn't mean what  
22 it says, but it says it. So, I would respectfully

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1 ask that you withdraw that sentence or else I will  
2 abstain. I feel like I have to abstain.

3 MEMBER SEITZ: First of all, I also  
4 very much appreciate the thoughtful, careful work  
5 that went into the Policy Manual.

6 I just wanted to ask a couple of  
7 questions and make a statement. When you say, Tom,  
8 that it accurately reflects current operating  
9 procedures, I think you are also implying, though,  
10 that you think our current operating procedures are  
11 in line with FACA and with OFPA. So, it is not that  
12 this is endorsing a different set of operating  
13 procedures, but endorsing or reflecting operating  
14 procedures that are in line with the governing  
15 laws? Is that fair to say?

16 VICE CHAIR CHAPMAN: Correct, with  
17 what we are doing here today, not what is written  
18 in the 2012 PPM. Yes.

19 MEMBER SEITZ: I was curious about, I  
20 think that the conflict-of-interest provision  
21 around the authors of technical reviews makes a lot  
22 of sense. But, from my perspective, I think it is

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1 also always helpful to know who actually authors  
2 an article, just as in any peer-review publication  
3 you would know the author of the article, not to  
4 say that other aspects of that author who has hired  
5 them or who they work for, or whatever, would be  
6 an absolutely deciding factor in terms of the  
7 quality of the analysis that is presented. I would  
8 just see that as one more factor.

9 But I haven't read the Policy Manual  
10 carefully enough to say -- that wouldn't preclude  
11 our getting information on authors, would it? It  
12 is just laying out the conflict of interest?

13 VICE CHAIR CHAPMAN: The PPM as written  
14 requires that the name of the contracting party be  
15 written on the technical review that we get, and  
16 it requires that the contract comply with the  
17 Federal Acquisition Regulations that we outlined  
18 there. It is silent to the name of the authors.

19 MEMBER SEITZ: And why is there, from  
20 your understanding of practice, that you wouldn't  
21 also have the author's name?

22 MR. McEVOY: Yes, the current

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1 contracts that we have for the technical reports  
2 are with the organizations that are listed. I'm  
3 sure Lisa Brines knows specifically which  
4 organizations they are. Those are the parties  
5 that names are responsible for meeting the terms  
6 of the contract. So, those names are -- that is  
7 the organization that is meeting the terms of the  
8 contract. And so, therefore, those are the  
9 organizations that are named as the writer of those  
10 technical reports.

11 MEMBER SEITZ: I looked at the sunset  
12 provision, and the term "sunset" to me absolutely  
13 does imply that the substance would lose its status  
14 and need to be reauthorized. However, the wording  
15 in that paragraph underneath where it says "sunset"  
16 is actually fairly ambiguous.

17 As a Board member, of course, I am  
18 frustrated that it is ambiguous, though as a lawyer  
19 I appreciate its ambiguity because it keeps lawyers  
20 in business. Okay?

21 (Laughter.)

22 But that is something that really

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1 jumped out at me, that the sunset provision is  
2 genuinely ambiguous. I don't know if there was  
3 legislative record that came along with that.  
4 Certainly, it appears to me, again, just from what  
5 has been presented, that there was an early  
6 different interpretation.

7 What I think is interesting, if you flip  
8 it to what it currently is, it obviously makes it  
9 more difficult to delist a substance, which can  
10 have some benefits and drawbacks from a policy  
11 perspective. But I think it probably will make the  
12 Board more careful in terms of its initial decision  
13 to list. Another Board member, Harriet, I think  
14 mentioned that; that if it is harder to delist a  
15 substance, then I think it is incumbent upon all  
16 of us to be very careful about our initial decisions  
17 to list a substance.

18 My only hesitation in voting anything  
19 other than to abstain on this is just simply that  
20 I haven't had time, as a new member, to just  
21 carefully go through the -- I always want to say  
22 "OPA," but I think it's "OFPA" -- to carefully go

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1 through OFPA, carefully go through FACA. Then,  
2 see the consistency there.

3 But I do appreciate that Tom's  
4 presentation really did sort of carefully lay that  
5 out, and I think there has been some very careful  
6 thinking behind that.

7 So, luckily, I have another few minutes  
8 to decide on my vote here. Okay.

9 VICE CHAIR CHAPMAN: Emily?

10 MEMBER OAKLEY: I want to echo a lot of  
11 those comments. I feel that there is so much in  
12 here that is worthy of a lot of time and  
13 consideration, that I don't feel I really had the  
14 time to give it, and trying to just read all those  
15 nearly 3,000 comments and to wrap my head around  
16 the proposals.

17 But I really appreciate your  
18 presentation. I feel it really, hopefully,  
19 resolved some questions. I know it won't have  
20 resolved nearly all of them.

21 I think my main concern is just the  
22 conflict that has been generated around the issue,

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1 and I did write some thoughts down. So, I just want  
2 to actually read them, so that I capture my ideas  
3 best.

4 But, like everyone else, I deeply  
5 appreciate the work that has gone into this  
6 because, having been a board president of a number  
7 of organizations in the past, I know how difficult  
8 this, and I have been through bylaw updates myself,  
9 and it is never an easy process trying to bring  
10 something up-to-date while also respecting and  
11 observing the historical context of the document.

12 And I know that a lot of the work that  
13 you have done has taken place before my time on the  
14 Board. So, that makes my opinion limited.

15 I agree that the PPM needs to be brought  
16 up-to-date, and there are many important  
17 improvements in this proposal. I also, as a new  
18 member, saw that the old version needed help.

19 I also understand that boards and  
20 operating procedures evolve with time, and as  
21 members change, bylaws or in this case the PPM help  
22 preserve the institutional memory of a board and

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1 reflect the work of earlier iterations of the  
2 board.

3 My concern is that there are changes to  
4 the PPM that remove language that a number of  
5 stakeholders, farmers, consumers, and  
6 organizations, value and want to see kept.

7 I wish that a middle ground could be  
8 found that brings the PPM up-to-date while  
9 preserving more of the language that has sparked  
10 concern and conflict. I am not sure if that is  
11 possible because you all have been through this  
12 process much longer than I have. And it is a very  
13 confusing issue for me. Hopefully, there will be  
14 some more discussion before we vote.

15 MEMBER RICHARDSON: Call the question.

16 MEMBER THICKE: One more comment  
17 quickly on that thing about the authorship of the  
18 TRs. I think it would be great. Because I know  
19 when I read a scientific article, I look at who the  
20 author is. Is he an engineer? Because, then, you  
21 can see where the weaknesses might be, and it would  
22 help kind of, I think, when we evaluate the TRs,

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1 it might help to know who the authors are.

2 VICE CHAIR CHAPMAN: Thank you.

3 So, the question has been called.

4 Jean, will you withdraw your question  
5 calling?

6 MEMBER RICHARDSON: Yes.

7 VICE CHAIR CHAPMAN: Okay.

8 MEMBER AUSTIN: You know, how come that  
9 side of the room has been hogging all of the time?

10 (Laughter.)

11 We have been over here like for the last  
12 35 minutes. Not really.

13 VICE CHAIR CHAPMAN: I didn't see.

14 MEMBER AUSTIN: But, no, I just wanted  
15 to comment that I support the changes. I support  
16 the effort that has gone into it.

17 I think it puts us back into a point of  
18 balance that better serves the organic community  
19 and all stakeholders, not just an active few.  
20 These are changes that are long overdue. And I  
21 want to go on the record to say that these are good  
22 changes for the entire organic community as a

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1 whole, as far as I am concerned.

2 And I applaud the work that the  
3 Subcommittee has done to this. Thank you, guys,  
4 for all of your effort on putting this together and  
5 bringing it to a vote before us.

6 VICE CHAIR CHAPMAN: Thank you.

7 MEMBER AUSTIN: And I will support it,  
8 by the way.

9 VICE CHAIR CHAPMAN: Thank you.

10 Seeing no additional comments, move to  
11 a vote on the item.

12 Emily, I believe.

13 CHAIR FAVRE: Yes, our new Board member  
14 Emily is up first for the vote.

15 MEMBER OAKLEY: This is really unfair,  
16 but I am going to vote no.

17 MEMBER THICKE: No.

18 MEMBER AUSTIN: Absolutely yes.

19 MEMBER BUIE: Yes.

20 MEMBER BECK: Yes.

21 MEMBER SWAFFAR: Yes.

22 MEMBER ROMERO-BRIONES: Yes.

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1 MEMBER DE LIMA: Yes.

2 VICE CHAIR CHAPMAN: Yes.

3 MEMBER SEITZ: Abstain.

4 MEMBER RICHARDSON: Yes.

5 MEMBER BEHAR: Yes.

6 MEMBER SONNABEND: Abstain.

7 MEMBER RICE: Yes.

8 CHAIR FAVRE: The Chair votes yes.

9 MEMBER DE LIMA: That's 11 yes, 2 no,  
10 2 abstentions. The motion passes.

11 VICE CHAIR CHAPMAN: All right. We  
12 have one more item before us. Can we toss up the  
13 slide?

14 MEMBER SONNABEND: Point of order.

15 VICE CHAIR CHAPMAN: Yes.

16 MEMBER SONNABEND: Well, now that it is  
17 passed and I'm in violation of it, and there is no  
18 censure policy in the PPM, would you like to take  
19 some censure action against me?

20 VICE CHAIR CHAPMAN: No, because you  
21 were in violation before because it was part of our  
22 ethics procedure before we even voted on it. So,

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1       there is no real change today and yesterday and  
2       before. It has been in the ethics since 2013, as  
3       far as I can tell.

4                   MEMBER SONNABEND: We never voted on  
5       it. I don't think I ever voted on it.

6                   VICE CHAIR CHAPMAN: Yes, it's in the  
7       Ethics Memo from the NOP from 2013.

8                   MEMBER SONNABEND: Did we get to vote  
9       on it?

10                  VICE CHAIR CHAPMAN: That's what you  
11       make your disclosures of conflicts of interest  
12       against. That's that procedure.

13                  MEMBER SONNABEND: Well, I will get  
14       ready for the court-martial.

15                               (Laughter.)

16                  VICE CHAIR CHAPMAN: All right. So,  
17       the next item is the --

18                  MR. McEVOY: You're not in violation.  
19       You're not in violation of anything. Well, you  
20       might be of something, but you're not in violation  
21       of the FACA and NOSB rules by taking compensation.

22                               (Laughter.)

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1           It's the compensation from the USDA  
2           that is prohibited.

3           VICE CHAIR CHAPMAN:     He said the  
4           compensation from the USDA was what was prohibited.

5           All right.     So, the 2017 sunset  
6           timeline reorganization, I'm going to address this  
7           as quickly as I possibly can.   There's only 45 more  
8           slides on this.

9           (Laughter.)

10          No, this is the only slide.

11          So, this was a discussion document, and  
12          I do want to highlight that the PDS, our proposals  
13          were very ambivalent, one that had a lot of various  
14          comments and opinions, one that was very unanimous.

15          So, everyone across the community  
16          agreed in unity and alignment that something needed  
17          to be done.   One commenter said, "Just do it."  
18          They were in support of Proposals B and C, which  
19          was various different ways of clumping with the  
20          2017 items together and, then, moving the reviews  
21          earlier across years '18, '19, '20, and '21 and '22.

22          So, the next action of the Subcommittee

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1 will be to take all that public comment in and to  
2 see if we need to rearrange some of the proposed  
3 groupings and, then, bring that back to the Board.

4 A couple of themes was that materials  
5 did need to be reviewed prior to their five-year  
6 requirement, which would also be required by OFPA;  
7 that the reviewed materials for removal would not  
8 be removed until their original sunset date, which  
9 would be 2022. Yes, that's the right date. And  
10 that decisions should be made based on current  
11 information, not future information. And then,  
12 there were several suggestions for how we group  
13 those items together.

14 So, that is it for the policy. Is there  
15 any discussion of our 2017 sunset?

16 (No response.)

17 Seeing no discussion, I hand it back  
18 over to the Chair.

19 CHAIR FAVRE: Thank you, Tom.

20 I just want it on the record that we  
21 probably would have ended tonight if you hadn't  
22 brought 80-something slides on the PPM.

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1 All right, folks. That concludes our  
2 agenda today.

3 I want to remind everybody that there  
4 is an OTA reception that actually started at six  
5 o'clock. Hopefully, they still have some food and  
6 drinks left for those of us here.

7 The directions are outside. There's  
8 some postcards, I believe, that have directions.  
9 It is about a 10-minute walk or so to get there.  
10 It is at the Zoo. So, it should be a great venue,  
11 and they have asked me to make sure everybody knows  
12 that they are invited. The directions are outside  
13 on one of the tables, and you can always grab one  
14 of the OTA people if you have any questions.

15 We will reconvene tomorrow morning at  
16 8:30 a.m. We look forward to seeing you all there.

17 Thank you. Have a nice evening.

18 (Whereupon at 6:32 p.m., the meeting  
19 was adjourned for the day.)  
20  
21  
22

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## UNITED STATES DEPARTMENT OF AGRICULTURE

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## NATIONAL ORGANIC STANDARDS BOARD

+ + + + +

## SPRING 2016 MEETING

+ + + + +

WEDNESDAY  
APRIL 27, 2016

+ + + + +

The Board met in the Blue Room of the Omni Shoreham Hotel, 2500 Calvert Street, N.W., Washington, D.C., at 8:30 a.m., Tracy Favre, Chair, presiding.

PRESENT

TRACY FAVRE, Chair  
TOM CHAPMAN, Vice Chair  
HAROLD AUSTIN  
CARMELA BECK  
HARRIET BEHAR  
JESSE BUIE  
LISA DE LIMA, Secretary  
EMILY OAKLEY  
SCOTT RICE  
JEAN RICHARDSON  
A-DAE ROMERO-BRIONES  
DAN SEITZ  
ZEA SONNABEND  
ASHLEY SWAFFAR  
FRANCIS THICKE

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ALSO PRESENT

MICHELLE ARSENAULT, Advisory Board Specialist,  
National Organic Program

LISA BRINES, National List Manager, National  
Organic Program

EMILY BROWN ROSEN, Agricultural Marketing  
Specialist, National Organic Program

PAUL LEWIS, Director, Standards Division,  
National Organic Program, USDA

MILES McEVOY, Designated Federal Officer, Deputy  
Administrator, National Organic Program

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Adjourn

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1 P-R-O-C-E-E-D-I-N-G-S

2 8:31 a.m.

3 CHAIR FAVRE: Good morning, everyone.  
4 Thank you for joining us. This will be our last  
5 day of the meeting.

6 And I see the hardcore folks are here  
7 bright and early on the last morning. Thank you,  
8 we appreciate that.

9 I'd like to open our session today --

10 MEMBER RICHARDSON: A point of order,  
11 Madam Chair, point of order.

12 CHAIR FAVRE: Yes, Chair recognizes  
13 Jean Richardson.

14 MEMBER RICHARDSON: I would like to be  
15 able to embarrass Zea this morning by wishing her  
16 a very happy birthday and inviting us all to sing.

17 (Applause.)

18 CHAIR FAVRE: I do miss the flower  
19 crown that you wore in San Antonio for your  
20 birthday. Happy birthday.

21 We actually have a couple of other  
22 birthdays that we're celebrating for Board members

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1 this week, but I'm not going to embarrass them by  
2 singing to them. Jean's is on Friday and Carmela's  
3 is on Saturday. So, how about a round of applause  
4 for them.

5 (Applause.)

6 CHAIR FAVRE: Okay, I'd like to kick us  
7 off in the same philosophical vein that we've been  
8 trying to keep this week and turn it over to Lisa  
9 for an inspirational reading.

10 MEMBER DE LIMA: I'm going to continue  
11 with a poem, but not Robert Frost.

12 This is from a 14th century Buddhist  
13 monk.

14 "Out of the soil of friendliness grows  
15 the beautiful bloom of compassion,

16 Watered with the tears of joy,

17 Under the cool shade of the tree of  
18 equanimity."

19 CHAIR FAVRE: Thank you, Lisa. Great.  
20 Okay, so we are going to start first thing this  
21 morning with an update from the CACS. Carmela?

22 MEMBER BECK: Good morning. So, this

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1 past semester the CACS solely dedicated our time  
2 to the wrap-up of the assessment on soil  
3 conservation practices which Scott will present on  
4 shortly.

5 Before moving into this topic I briefly  
6 wanted to make mention of the public comment  
7 provided on the topics of one, inspector onsite  
8 evaluation requirements as outlined in NOP  
9 Instruction 2027, and two, eliminating the  
10 incentive to convert natural ecosystems into  
11 organic production.

12 As Tracy mentioned on Monday the CACS  
13 has added the topic of reviewing Instruction 2027  
14 titled Personnel Performance Evaluations issued on  
15 March 31, 2016, in order to zero in on the  
16 requirements that all inspectors should be  
17 evaluated during an onsite inspection by a  
18 supervisor or peer at least annually to our work  
19 agenda.

20 In summary, public commenters  
21 expressed concern over the lack of clarity from the  
22 NOP regarding, one, reasons why infield

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1 inspections of inspectors are required on an annual  
2 basis and not every three to five years and/or are  
3 not required through use of a risk-based approach.

4 Two, why the NOP has interpreted the  
5 "should" as a "must."

6 Three, clarification has been  
7 requested on the exact nature of the problem the  
8 NOP is trying to solve.

9 Four, commenters asked if there is an  
10 opportunity to better utilize the IOIA report  
11 findings and recommendations on pilot infield  
12 evaluations submitted to the NOP in February of  
13 this year.

14 And lastly, commenters shared that the  
15 impact of the annual infield inspection  
16 requirement is not only financial, but has also  
17 contributed to a reduction in the inspector pool.

18 And secondly, the public has expressed  
19 continued interest in requesting that the CACS add  
20 elimination of the incentive to convert native  
21 ecosystems into organic crops.

22 Commenters stated that instead of

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1        incentivizing the conversion of native ecosystems  
2        to organic crop production the NOSB should guide  
3        the NOP to place emphasis on converting  
4        conventional land and improving current or former  
5        farmland that has been degraded under non-organic  
6        management.

7                    And furthermore it was stated that  
8        until such time that a rule could be put into place  
9        they asked that the NOSB recommend for the NOP to  
10       issue guidance on the issue.

11                    The CACS would like to thank the public  
12       for their detailed comments. We look forward to  
13       working on Instruction 2027 and to requesting  
14       addition of elimination of the incentives to  
15       convert native ecosystems to our future work  
16       agenda.

17                    And with that I'd like to ask Scott to  
18       provide his report.

19                    MEMBER RICE: Thank you, Carmela. I  
20       wanted to touch base this morning on the work that  
21       the CACS has done on the assessment of soil  
22       conservation practices.

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1                   And to do that I wanted to start off with  
2 a little bit of background.

3                   In April of 2014 the NOP sent a memo to  
4 the NOSB noting that they were aware of some  
5 concerns regarding the use of appropriate soil  
6 conservation practices on organic farms such as  
7 prevention of soil erosion, fencing of livestock  
8 from streams, application of manure on frozen  
9 ground, and over-grazing of pasture.

10                  NOP expressed that information about  
11 how certifying agents are assessing soil  
12 management practices may reveal areas that could  
13 benefit from targeted training and tools.

14                  This memo requested that the CACS  
15 develop a discussion document to solicit public  
16 feedback on the issue around several specific  
17 questions about evaluating soil conservation  
18 management on organic operations.

19                  And they offered a number of questions  
20 to be posed to the community.

21                  Just a couple of those questions. How  
22 are certifiers assessing whether production

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1 practices identified in OSP maintain or improve  
2 soil quality.

3 What tools other than visual inspection  
4 could aid certifiers in evaluating soil management  
5 practices.

6 What are the inspector qualifications  
7 that certifiers seek for evaluating soil  
8 management practices.

9 So in terms of progression of work the  
10 CACS adopted this or took this on beginning in May  
11 of 2014, met to discuss various ideas, how to  
12 address in terms of format, whether that would look  
13 like a discussion document or a proposal, what that  
14 scope would look like, national or regional as well  
15 as other goals.

16 There was a draft document discussed in  
17 subcommittee. We reached out to members of the  
18 community for some perspective on that including  
19 Sarah Brown of NRCS who's now working with Oregon  
20 Tilth Certified Organic on NRCS issues.

21 She offered a perspective on that and  
22 the CACS recognized there was general consensus

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1 around the challenge of determining compliance  
2 versus non-compliance in this area.

3 A draft document was finalized and put  
4 forth for public comment for the fall 2014 meeting.

5 We received a number of comments  
6 indicating certifier and inspector soil assessment  
7 practices are effective and compliant with the  
8 regulation.

9 Current certifier soil assessment  
10 qualitative practices are working, that there is  
11 an opportunity for the NRCS and NOP to collaborate  
12 on developing any additional training.

13 And a lot of discussion around the fact  
14 that there's no codification of NRCS or other  
15 agency's requirements within the regulation, and  
16 that certifiers cannot enforce NRCS requirements.

17 Also some concern around establishing  
18 metrics which were acknowledged to be helpful, but  
19 that there are no benchmarks identified in the  
20 regulation.

21 And with complex farming systems,  
22 making non-compliances based solely on metrics is

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1 somewhat difficult.

2 There's general acknowledgment that  
3 growers recognize soil degradation when they see  
4 it and will generally act to correct the issue with  
5 recognition that soil is the foundation of their  
6 operation.

7 Some of the suggestions that came out  
8 in those comments were to create NOP and NRCS  
9 partnerships, trainings, guidance, or education  
10 opportunities for certifiers and growers.

11 Create IOIA, International Organic  
12 Inspector Association webinars for ongoing  
13 continuing ed.

14 Perhaps require an inspection every  
15 several years dedicated to assessing soil  
16 conservation practices.

17 Through October and November of 2014  
18 there was discussion of public comments and  
19 considered with the thought of a spring 2015  
20 proposal.

21 There were some further meetings with  
22 NRCS to get some more understanding and perspective

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1 on the issue, and further work on bringing a  
2 proposal forward as it had been delayed until the  
3 fall 2015 meeting.

4 And kind of looking at that proposal and  
5 the comments, the options for moving forward were  
6 reviewed and considered, whether that meant more  
7 info and guidance from NOP, contracting for a  
8 technical review on soils to assess soil health.

9 And then just this last January we met  
10 again and had some further discussion on the status  
11 and best way forward.

12 CACS and NOP felt it's an important  
13 topic, but at this time the NOP suggested that  
14 delaying further work would make the most sense  
15 until they can provide a little more guidance and  
16 resources.

17 But I wanted to emphasize that in the  
18 time since this came to the CACS in early 2014  
19 there's been quite a bit of work in this vein.

20 And many resources and initiatives have  
21 emerged toward assessing soil conservation  
22 practices, and ensuring that this remains a key

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1 tenet of organic production.

2 The CACS is confident that with a number  
3 of initiatives that are ongoing as well as  
4 developing we can continue to build some robust  
5 monitoring and assessment of soil conservation and  
6 health across the organic community.

7 And just to highlight some of the work  
8 that has been done in this vein we saw the NOP  
9 guidance 5020, Natural Resources and Biodiversity  
10 Conservation, outlining the roles of the organic  
11 operation, the certifier and the inspector  
12 ensuring an operation has measures in place to  
13 maintain or improve the natural resources  
14 including soil.

15 There have been a number of IOIA  
16 trainings and partnership with NRCS as had been  
17 recommended earlier in this process both with NRCS  
18 and certifiers.

19 IOIA has presented several trainings in  
20 partnership with accredited certifiers providing  
21 inspectors with a greater understanding of NRCS  
22 programs and tools to assess soil health, its

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1 management and erosion including fuel components.

2 Each year there's an NOP and Accredited  
3 Certifiers Association training that takes place.

4 And a lot of focus in those, or some  
5 focus in those in the last couple of years has been  
6 on NRCS resources with NRCS staff covering tools,  
7 methods and resources to identify soil health and  
8 management initiatives.

9 We've also got the NRCS CAP 138 program  
10 that presents tools that introduce practices which  
11 assist the producer to transition from  
12 conventional to organic production. And those  
13 plans include a number of initiatives that  
14 encourage and incentivize soil conservation  
15 efforts.

16 As well, a number of Sound and Sensible  
17 projects developed -- or rather funded by -- in the  
18 round of Sound and Sensible projects included  
19 information relating to soil conservation, health  
20 and management.

21 So, you can see there's a lot of effort  
22 on this front. And we're confident that even

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1       though we're not moving forward with a proposal,  
2       or a recommendation per se that it's been  
3       heartening and great to see all the work that's been  
4       done in this area.

5               And we'll continue to monitor that and  
6       would welcome community input on ways to better  
7       improve. Thank you.

8               MEMBER BECK: Thank you, Scott. Is  
9       there any discussion? Francis.

10              MEMBER THICKE: I just wanted to bring  
11       up something that's happening a lot in the Midwest.  
12       It's been developing for years.

13              It's no-till organic with cover crops,  
14       and probably a lot of you have heard it, where you  
15       grow a cover crop, and then roll it down, and then  
16       plant your annual crop or even vegetables into  
17       that.

18              And I did some last year and had  
19       tremendous results.

20              It's really great because I think most  
21       organic farmers as Scott said don't want to see  
22       erosion, but they're locked in a little bit because

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1 to control weeds they have to cultivate.

2 But with this system you're not only  
3 controlling weeds, but you're building soil,  
4 organic matter and you're keeping your moisture in  
5 there. You're building soil structure. All  
6 parameters for soils are improving. So it's  
7 really exciting, I think.

8 And maybe that should be one of our  
9 research topics we forward on too is no-till  
10 organic farming.

11 MEMBER BECK: Thank you. Emily and  
12 then Harriet.

13 MEMBER OAKLEY: I just wanted to say  
14 that I'm really glad to see that you're going to  
15 ask to put the elimination of the incentive to  
16 convert native ecosystems on the work agenda  
17 because I couldn't agree more strongly with that.

18 MEMBER BEHAR: I worked quite a bit  
19 with Jo Ann Baumgartner at Wild Farm Alliance on  
20 this soil conservation.

21 I think there's so much, the perception  
22 too. And the last thing we want is for people to

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1 drive by an organic farm and see erosion and that  
2 sort of thing.

3 So, we need to really be protecting the  
4 way -- we need to protect organic land and we need  
5 to also protect the reputation of organic, that we  
6 really are good soil stewards. So I think this is  
7 a very important guidance to producers out there.

8 Especially those new people. Once  
9 they're an organic farmer of course if they're  
10 going to be working to improve their land the last  
11 thing they want to do is see it run down the hill.

12 MEMBER BECK: Miles.

13 MR. MCEVOY: Yes, this was something  
14 that was highlighted by Betsy Rakola on Monday  
15 about the cooperation, collaboration that we're  
16 doing with the Natural Resource Conservation  
17 Service and their efforts to get more information  
18 out about conservation resources that organic  
19 farmers can use and ways to modify their program  
20 so that they're more aligned with organic  
21 regulations and organic principles.

22 So the National Organic Farming

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1 Handbook has just been published by the Natural  
2 Resource Conservation Service.

3 There is a webinar to introduce that on  
4 May 26 so I encourage people to -- especially Board  
5 members that are working on this topic to sign up  
6 for that webinar session.

7 It's by Lindsay Haines who's the  
8 organic program specialist for NRCS nationwide,  
9 and Ben Bowell who works both for Oregon Tilth and  
10 a cooperative agreement with Natural Resource  
11 Conservation Service.

12 So, lots of good things happening, but  
13 NRCS needs additional input from the organic  
14 community to continue to have their programs really  
15 work well for the organic community.

16 MEMBER BECK: A-dae.

17 MEMBER ROMERO-BRIONES: I have to say,  
18 one of the most helpful papers or documents that  
19 I've read in this space was from the Wildlife  
20 Alliance and their document on food safety that was  
21 funded by NRCS.

22 And I would encourage everybody to read

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1 that.

2 MEMBER BECK: All right, thank you.  
3 Jean.

4 MEMBER RICHARDSON: Yes, two things.  
5 First, I'd just like to thank people very much for  
6 sending in the information to help us have more  
7 detailed foundation on which to put the wildland  
8 conversation work agenda item, move it closer  
9 towards getting it on our work agenda.

10 And we'll be taking that up I assume in  
11 our next meeting to get something more formal to  
12 have that go forward.

13 And also, just a reminder that the NRCS  
14 thing on the soils that we did work on over the last  
15 year and a half, one of the things we did note is  
16 that there is a considerable variation  
17 geographically around the country of how the local  
18 NRCS state and regional offices interpret whatever  
19 is in the -- assuming the new national soil document  
20 that's going to be on this webinar which I'll for  
21 sure be on.

22 And so it would be very useful to us.

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1 Obviously we're not going to leave the soils on our  
2 work agenda per se, but we would really like to get  
3 some feedback from the certifiers over the next  
4 year or so as to how they're moving to sort of  
5 improve their methods of assessing soil, soil  
6 erosion, et cetera, through their OSPs and through  
7 their inspector training and so forth to see how  
8 it's working, and to see what geographical  
9 variations there actually are in the way in which  
10 the improvement of soil and et cetera is taking  
11 place around the country.

12 MEMBER BECK: Anyone else? Okay, that  
13 concludes our report.

14 CHAIR FAVRE: Thanks, Carmela. We're  
15 going to head immediately into the Handling  
16 Subcommittee. Harold?

17 MEMBER AUSTIN: Thank you, Tracy. For  
18 today's presentation for this past semester the  
19 Handling Subcommittee has been working on 18 2018  
20 sunset materials.

21 We'll be coming forward today with five  
22 proposals, one discussion document.

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1           It's been an interesting semester  
2 following last year. I know some of you in the room  
3 have felt the pain that this Board and especially  
4 the Handling Subcommittee went through and the  
5 other subcommittees with the workload that we had  
6 last year.

7           It was tremendous, especially doing it  
8 incapacitated in the way that I was with having a  
9 few body parts broken along the way didn't help  
10 matters.

11           But even being physically whole, the  
12 workload that we had before us last year was  
13 tremendous. So, I think we're all still kind of  
14 winding down from that. We're having the  
15 aftershock of the 2017 materials.

16           So this should be a breeze, but I'm  
17 going to be interested to see how we do.

18           With that, I thank the work of the  
19 subcommittee for everything that we've done, for  
20 the leads taking the time to go through the  
21 materials, for those in the audience and those not  
22 here to provide us with comments, with information,

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1 helping us to do our job a little bit better as a  
2 volunteer group.

3 The one point I would like to take and  
4 address is when we listed our proposals, whether  
5 they're the sunset '18 materials, or they're our  
6 proposed materials, on many of the materials we did  
7 pose some questions, some very specific questions  
8 back to the stakeholder groups and those involved  
9 in the community.

10 We've got a wide spectrum of responses  
11 back on some materials. On several materials we  
12 got virtually no commentary back to the questions  
13 we posed.

14 So, I guess I want to challenge  
15 everybody in the organic community that if a  
16 material is up for review or as a proposal, and if  
17 it's important to you, your business, your  
18 stakeholder group, make sure that somebody is  
19 paying attention and that you provide us with any  
20 commentary that you can because it will help us do  
21 a better job of taking and helping support our  
22 organic community.

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1           With that we're going to move into the  
2 first item which will be our 2018 sunset materials.

3           First up will be agar-agar. Dr.  
4 Brines, if you would be so kind?

5           DR. BRINES: Thanks, Harold. The  
6 first substance on the docket for the NOSB under  
7 handling is on Section 205.605 of the National  
8 List, non-agricultural non-organic substances  
9 allowed as ingredients in or on processed products  
10 labeled as organic or made with organic specified  
11 ingredients or food groups.

12           Substance appears under paragraph A,  
13 Non-Synthetics, allowed as agar-agar. Thanks.

14           MEMBER AUSTIN: Lisa?

15           MEMBER DE LIMA: Agar-agar uses  
16 include thickener, gelling agent, absorbent.  
17 It's derived from red algae, primarily two species,  
18 Gelidium and Gracilaria. I might have pronounced  
19 those wrong.

20           Agar-agar is permitted for use in  
21 organic production internationally by Codex, the  
22 Commission for European Communities, IFOAM and

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1 Canada.

2 We did not find any new information  
3 indicating that the substance is harmful to human  
4 health or the environment.

5 We did want to note that this summer the  
6 Handling Subcommittee will be reviewing the use of  
7 all marine plants on the National List currently.

8 And also that in the last review  
9 questions were raised about its classification.  
10 And we will take a look at that once the NOP  
11 finalizes guidance for materials classification.

12 Most public comment that we received  
13 this initial round was supportive of retaining on  
14 the National List.

15 Two organizations did comment that they  
16 would be supportive or neutral if the substance was  
17 annotated from or to agar-agar from the Gelidium  
18 species processed without alkaline.

19 We did request the public inform us of  
20 any new developments with alternatives to  
21 agar-agar. And we got very little response.

22 We did hear that some of the properties

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1 that made it a good substance was that it had  
2 stronger setting properties than other  
3 animal-based gelatins, and was less  
4 temperature-sensitive than other alternatives.

5 MEMBER AUSTIN: Thank you. Any  
6 discussion or questions from the subcommittee on  
7 what was presented? Do we want to go there? Jean?

8 MEMBER RICHARDSON: Just a quick  
9 question to Lisa. In reading the public comment  
10 on this, I know there wasn't a lot. Do you have  
11 a sense that would guide the public as to what  
12 direction you're headed in terms of continuing to  
13 list?

14 DR. BRINES: Yes, I'm sorry. We would  
15 be supportive of continuing to list because we  
16 didn't get any new public comment indicating that  
17 it didn't fit the criteria to be on the National  
18 List.

19 MEMBER AUSTIN: Any other questions  
20 from the Board?

21 I would just remind everybody that  
22 these are sunset 2018 materials. This is the first

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1 public posting and discussion for these materials.  
2 The official voting for re-listing or de-listing  
3 will take place at our fall meeting.

4 Moving onto our next material will be  
5 animal enzymes. Dr. Brines?

6 DR. BRINES: Thank you. This  
7 substance is also included under Section 205.605  
8 of the National List under paragraph A,  
9 Non-Synthetics Allowed, and reads as animal  
10 enzymes, rennet, animals derived, catalase, bovine  
11 liver, animal lipase, pancreatin, pepsin and  
12 trypsin. Thank you.

13 MEMBER AUSTIN: Lisa, I believe this is  
14 you again.

15 MEMBER DE LIMA: Animal enzymes.  
16 They're used in very small amounts to carry out  
17 naturally occurring biological processes used in  
18 the processing of foods or ingredients.

19 An example is animal rennet is used as  
20 a coagulant to curdle milk to then be made into  
21 cheese.

22 They're traditionally taken from the

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1 fourth stomach or other animal organs.

2 The subcommittee asked the public to  
3 comment on the availability of organic animal  
4 enzymes. And comments indicated that none had  
5 been found so far.

6 Public comment was generally in support  
7 of retaining animal enzymes on the National List  
8 with some calls for continued exploration of  
9 finding organic versions.

10 We didn't find any new information to  
11 indicate harm to human health or the environment.  
12 So the subcommittee would be supportive of  
13 relisting at the fall vote.

14 There are no true alternatives to  
15 animal enzymes. They could only really be  
16 substituted with another enzyme that had the same  
17 function.

18 MEMBER AUSTIN: Questions. Harriet?

19 MEMBER BEHAR: So, I did a little  
20 research. I was trying to find if there were any  
21 organic alternatives, and even if some of the  
22 houses that produce these enzymes for cheese

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1 makers.

2 And I didn't get any response from the  
3 -- you know, I just left little messages. Nobody  
4 got back to me.

5 But I noticed that in Europe they also  
6 are somewhat grappling with this and hoping to find  
7 organic sources of these animal enzymes.

8 We do slaughter the animals that could  
9 produce this enzyme. So I'm hoping maybe in the  
10 next six months we could maybe move further along.

11 And many of the enzymes that are used  
12 in making cheese here in the United States do come  
13 from Europe. So, maybe working with our friends  
14 overseas we could try to see if we could move  
15 ourselves. Wouldn't that be interesting, to  
16 actually have this processing aid ingredient be  
17 from an organic source? And provide another  
18 income stream for the organic producers.

19 MEMBER AUSTIN: Any other questions?  
20 Thank you, Lisa.

21 Moving on, our next material will be  
22 calcium sulfate mined. Dr. Brines?

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1 DR. BRINES: Thank you. This  
2 substance is also included under Section 205.605  
3 of the National List under paragraph A,  
4 Non-Synthetics Allowed, and reads as calcium  
5 sulfate mined. Thank you.

6 MEMBER AUSTIN: Thank you. Tom, I  
7 believe you're the lead.

8 VICE CHAIR CHAPMAN: So, calcium  
9 sulfate mined is used as a coagulant to food  
10 manufacturing for the soft and silky tofu types.

11 It can be used as a yeast food, dough  
12 conditioner, a water conditioner in brewing, a  
13 firming agent in canned foods.

14 It can also be used in baking powder as  
15 an abrasive agent as well as in cosmetic products  
16 and toothpaste.

17 Calcium sulfate can be obtained from  
18 natural sources or synthetic sources. De-listing  
19 restricts calcium sulfate to mined sources and  
20 mined gypsum is the primary source.

21 After mining the crude gypsum is ground  
22 and separated. It's normally sold as pure, but may

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1 contain impurities from the mining source such as  
2 calcium carbonate or naturally occurring silica.

3 Calcium sulfate is widely accepted in  
4 international organic standards include IFOAM,  
5 Codex, EU, Japan, Canada and Mexico.

6 Most of those standards have  
7 restrictions to its use in soy, yeast, or baking  
8 products, but most of them also do not have  
9 restrictions on the source material with the  
10 exception of the EU that prohibits calcium -- not  
11 particularly calcium, but sulfates itself produced  
12 from sulfuric acid.

13 Public comment on this item. There  
14 wasn't any direct comment opposed to listing, but  
15 some called for a restriction in usage to soy  
16 products or similar products as well as a new  
17 technical review to assess health and  
18 environmental impacts.

19 Direct comment and comments through  
20 certifiers noted about 25 operations using this  
21 product.

22 MEMBER AUSTIN: Thank you, Tom.

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1 Questions? Jean?

2 MEMBER RICHARDSON: Tom, same question  
3 that I asked of Lisa earlier. Based on your  
4 analysis so far to give an indication to the public  
5 where we're headed with this? Like relist or  
6 continue?

7 VICE CHAIR CHAPMAN: Yes, I would  
8 imagine this item would continue listing. It's  
9 fairly non-controversial. It's gypsum. It's  
10 used also on the crop side of the list as well.

11 MEMBER AUSTIN: Any additional  
12 questions? Seeing none we will move on to our next  
13 material. Thank you, Tom.

14 Dr. Brines, if you would please present  
15 us with carrageenan.

16 DR. BRINES: Thank you. This  
17 substance is also included under Section 205.605  
18 of the National List under A, Non-Synthetics  
19 Allowed and reads as carrageenan.

20 In support of the review the Handling  
21 Subcommittee did request the development of a  
22 limited scope technical report.

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1           That report was completed and is posted  
2           and available on the National Organic Program's  
3           website. Thank you.

4           MEMBER AUSTIN: Thank you. Zea, if  
5           you would give the subcommittee's report, please.

6           MEMBER SONNABEND: Okay. Carrageenan  
7           is a complex carbohydrate that's extracted from a  
8           few species of red seaweed as we saw yesterday and  
9           the day before.

10           We got over 800 pages of public comment  
11           about carrageenan, and I am going to give a little  
12           summary of what we know so far.

13           I will say at the outset again what I  
14           said in the report - we have not decided how to vote  
15           on it even in the subcommittee.

16           And we certainly with so many new  
17           members on the Board haven't even started to ask  
18           anyone who's not on the subcommittee to digest all  
19           this information.

20           And while I have read almost all the 800  
21           pages I had a little trouble getting through the  
22           97-page CV of one guy that was submitted.

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1           But I have not had the time to go check  
2 most of the references contained within those  
3 because we had a very unprecedented 10 days from  
4 the time the comment period closed till now.

5           So, I'm just going to give a summary of  
6 the issues. And I'll probably be an equal  
7 opportunity offender and get everyone mad at me.

8           Because we haven't talked much about it  
9 at committee, just a little, it's the way I see the  
10 overall situation shaping up.

11          So, and if Board members want to stop  
12 me with questions in the middle that's okay, or we  
13 can wait till the end and have discussion.

14          So, these are the subjects I'm going to  
15 cover. As you know, we commissioned a TR  
16 specifically to evaluate the human health aspects  
17 of it, but we have a number of criteria that we have  
18 to address which will be addressed in our second  
19 posting to the extent possible.

20          So, first of all, we received quite a  
21 bit of public comment about the classification of  
22 carrageenan.

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1           We did state when we reviewed it in 2012  
2           that we're waiting for the final guidance on  
3           classification of materials and then we would take  
4           another look at it.

5           That is still our position. We hope  
6           that it might be out before the fall meeting so that  
7           we can.

8           The public comment indicated that  
9           there's more than one method used to extract  
10          impurified carrageenan, and some of the methods  
11          clearly seem to be non-synthetic while others may  
12          have issues that we will want to take up once the  
13          classification of materials comes out.

14          Okay, we definitely have to consider  
15          the effects on the environment when we issue our  
16          final review. But we have commissioned a separate  
17          technical report to address the impacts on the  
18          environment of the production and harvest of all  
19          types of marine plants.

20          And if that report is received on time  
21          for the fall meeting which I certainly hope it will  
22          be we'll be taking that under consideration when

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1 we make our recommendation.

2 Okay. So, we got a lot of comment about  
3 bias in the literature and among the people  
4 commenting.

5 And like one commenter said, you should  
6 address the topic of bias head on. So that is what  
7 I'm doing.

8 Both of the sides of this argument, the  
9 sides that have shown some troubling  
10 characteristics and the sides that say that  
11 carrageenan is completely safe have published in  
12 peer reviewed journals.

13 This is a list of just some -- it's not  
14 all of the peer reviewed journals, but the ones that  
15 have major articles about carrageenan, either for  
16 it, showing it's safe, or saying that it may cause  
17 inflammation, glucose intolerance, et cetera.

18 So, you know, I am the scientific  
19 representative on the Board. Yesterday I was a  
20 scientist for molecular biology. Later this  
21 afternoon I'll be a scientist for copper sulfate  
22 and rice ecosystems. Today I'm a scientist for

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1 carrageenan.

2 I don't know how any of us scientists  
3 on the Board can really say that some of these  
4 publications are biased. The peers who do the  
5 review to get the articles published are sold out,  
6 or not independent, or whatever.

7 And so I'm going to leave it at this  
8 mostly.

9 However, this is the list -- one of the  
10 major sources that is used for information and is  
11 trusted worldwide generally is the World Health  
12 Organization JECFA Expert Committee.

13 On the left side of the screen are the  
14 members of that committee, scientists from around  
15 the world who evaluated the reports.

16 Even though the reports were definitely  
17 funded by industry this group of people reviewed  
18 these reports.

19 On the journals on the previous page I  
20 did not really -- you don't know, I mean I probably  
21 could find out, but it would take a lot of digging  
22 to find out who the peer reviewers were. And you

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1 probably have to pay money since most of them  
2 charge.

3 But in the JECFA case you can find out  
4 who the peer reviewers were. And the people at the  
5 bottom are the people who wrote the reports on the  
6 studies that were funded by industry.

7 So, it is one level removed from bias  
8 in all the cases of peer reviewed literature that  
9 someone reviewed the studies and hopefully looked  
10 for sound experimental methods, although some of  
11 it really makes you do question.

12 So, I'm just going to read from one of  
13 the comments because I do think this is true.

14 "Bias in scientific research is  
15 something that all groups must contend with. It's  
16 not an issue that's confined to groups funded by  
17 industry. Academic researchers must also deal  
18 with this issue."

19 And I do want to add that NGOs also must  
20 deal with this issue because the louder they speak  
21 out about subjects the more donations they get.

22 So, my only editorial comment about

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1 this subject is believe it if you need it, and if  
2 you don't, just pass it on.

3 Okay. A lot of the controversy has to  
4 do with challenging the experimental methods used.

5 The older studies generally do not  
6 distinguish between degraded and undegraded  
7 carrageenan. The degraded forms used in some of  
8 them is what's known as poligeenan which is a  
9 separate CAS number substance extracted with a  
10 strong acid.

11 If the research does not specify what  
12 type of carrageenan they used I think the results  
13 definitely come into question.

14 Carrageenan is a substance that binds  
15 tightly with protein and passes through the  
16 digestive system. Studies in which it's  
17 administered in water without protein or injected,  
18 or introduced artificially into tissues that are  
19 not part of the digestive system are all  
20 questionable in my opinion.

21 And also, we would hope at the very  
22 least that a study would say how it is administered.

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1 But many studies don't say this from the abstracts.  
2 And so this is the reason why we really need to look  
3 at the full studies in order to evaluate it.

4 The in vitro studies have been  
5 challenged because behavior of cells in test tubes  
6 may not be comparable to in vivo digestive systems.

7 Scientists disagree over which animals  
8 are appropriate test subjects. Rats and mice have  
9 different digestive systems than humans. Piglet  
10 studies have been challenged, and primate studies  
11 which you'd think would be the closest to humans,  
12 but there are quite few in the literature.

13 A key tenet of the scientific method is  
14 that results from one lab should be able to be  
15 replicated by other labs using the same  
16 experimental parameters.

17 So far this has not been directly done,  
18 particularly on the glucose intolerance issue.

19 And while I didn't have time to look up  
20 many of the references, I did look up the four that  
21 were cited as replicated studies to the lab of Dr.  
22 Tobacman and Dr. Bhattacharyya. There were four

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1 studies cited.

2 One of the studies that was cited as a  
3 replicate had not even started yet, and they were  
4 still seeking test subjects, and the results will  
5 be available in May 2017. This is not a  
6 replication of the work if it hasn't even started  
7 yet.

8 Another of the studies was cited as  
9 being from a different institution, Vanderbilt.  
10 But when you looked up the study it had the same  
11 authors as the University of Chicago lab. That is  
12 not a replicated study from a different lab.

13 Dr. McKim who testified to us the other  
14 day, and this was not one of the four references,  
15 but we asked him to elaborate a bit on his attempts  
16 to replicate.

17 But his studies so far are only in  
18 abstract form and so we didn't look at the full  
19 methods that he used to judge for ourselves if they  
20 were comparable.

21 And he did testify how he thought they  
22 were comparable. But I would very much like to see

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1 his complete studies. And so if someone in the  
2 audience will know when they're published and could  
3 send them to Michelle that would be great.

4 The two other studies that were cited  
5 were only available as abstracts unless you paid  
6 \$35 which I am not about to pay \$35 to find out more  
7 about carrageenan at this point.

8 And so you can judge the experimental  
9 methods from the abstract. And one of them was so  
10 jargony I had no idea what they were really studying  
11 and would need to see the paper.

12 The other one, it was clear they were  
13 studying the effect of a virus on rats. And they  
14 used carrageenan as a supplemental method to  
15 exacerbate the virus if you will or potentiate it.

16 And they were not studying the  
17 carrageenan itself, they were studying the virus.  
18 So I do not think that is a replicated study either.

19 And that is my personal opinion. And  
20 I urge you to look at that for yourself.

21 Okay, degradation. You heard a lot of  
22 public comment about how much it degrades in the

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1 digestive system.

2 The undegraded carrageenan is the type  
3 that's used in food. I've given the molecular  
4 weight range.

5 The poligeenan has a much lower  
6 molecular weight range.

7 The controversy is how much of the  
8 degradation actually occurs in digestion.  
9 Research has shown that it's in a bell curve type  
10 fashion where there might be some at any particular  
11 molecular weight, you know, going along a curve  
12 where the typical molecular weight is in the middle  
13 and then there's some at the low end and some at  
14 the high end.

15 The key question in this is what level  
16 of degradation would be harmful. But since they  
17 can't really isolate the different molecular  
18 weights very well to study them separately that's  
19 not research that's being done.

20 Some studies have indicated that most  
21 of the carrageenan is excreted in the feces. And  
22 there is some question about whether the lower

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1 molecular weights are absorbed in the intestinal  
2 system.

3 But the hypothesis that degraded  
4 carrageenan has been absorbed into tissue has not  
5 been proven.

6 Some studies are published showing  
7 inflammation and other problems, while other  
8 studies have not shown problems.

9 Okay. Inflammation. A series of  
10 studies has shown that carrageenan can induce a  
11 complex inflammatory cascade in human intestinal  
12 epithelial cells. These studies were in vitro  
13 using cells from one individual.

14 Other studies did not associate  
15 food-grade carrageenan with inflammation.

16 Results are mixed in animal studies  
17 that administered carrageenan through drinking  
18 water.

19 Abilities of carrageenan to bind to TL4  
20 and trigger the inflammatory cascade has been  
21 challenged in the literature.

22 The technical report states,

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1 "Definitive conclusions regarding the varying  
2 degrees of human susceptibility to inflammation  
3 effects of carrageenan cannot be made from the  
4 available literature." I would tend to agree with  
5 that statement.

6 The NOSB previously looked at an  
7 article published in 2015 by Chassaing, et al.,  
8 about the potential for all dietary emulsifiers to  
9 impact the gut microbiota of mice, promoting  
10 inflammation and colitis.

11 I have this study. We looked at it in  
12 when we did the review of lecithin and some of the  
13 other gums in the first posting. And if anyone  
14 wants it I can circulate it to you.

15 And while this article, they only  
16 studied two of the emulsifiers, but they did in  
17 their conclusions draw -- cast a wider net and say  
18 that we don't know. It appears that this could be  
19 the case for all emulsifiers just because of the  
20 way they work in the human gut.

21 But this is the very beginning of  
22 studying this in terms of equality of all

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1 emulsifiers, and most of them have not been studied  
2 to the extent that carrageenan has.

3 Sensitivity. In the 2012 sunset  
4 review we received public comment from at least  
5 seven people who describe themselves as sensitive  
6 to carrageenan.

7 They experienced an adverse effect that  
8 stopped when they removed it from their diets.

9 In this current batch of public  
10 comments we received more of these reports. I did  
11 not have the opportunity to count them up, but we  
12 definitely did receive more.

13 One of the commenters searched the  
14 medical literature and only found one published  
15 report of an adverse reaction. And it was from  
16 experiencing it as administered in an enema which  
17 is not certainly typical of how carrageenan is  
18 ingested.

19 Many public commenters this time denied  
20 the reality of these complaints because they're  
21 anecdotal and not backed by scientific literature.

22 However, it appears that they're not in

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1 the literature because they have not been studied  
2 at all.

3 So, there has never been to our  
4 knowledge a population study on whether these  
5 concerns are attributable to carrageenan, nor is  
6 there any type of study that proves that all humans  
7 are subject to inflammation for this. There's  
8 been no I think Tom called it epidemiological.  
9 That's a word not in my vernacular.

10 But I do think that it was incorrect for  
11 the deniers to deny that these problems are real.  
12 As someone who's very much subjected to problems  
13 from food additives myself, although not  
14 carrageenan, I do admit to the reality of these.

15 I think it should be studied on a  
16 population basis because for every 50 people with  
17 a stomach ache some of them may be from carrageenan  
18 and some of them not. But to deny that sensitivity  
19 is possible is not realistic because I do think it  
20 is.

21 So, carrageenan is required to be on  
22 food labels with very few exceptions. And

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1       apparently in beer it's a processing aid. But we  
2       did get testimony about it being in condensed milk  
3       which we would have to look into, I think.

4               Therefore, those wishing to avoid it  
5       have the ability to do so for the most part.

6               And, as I said, as someone who -- many  
7       of the other emulsifiers that are derived from  
8       legumes I can't go near. And I read food labels  
9       rigorously. And I do still find them snuck into  
10      foods where they're not on the label. So I know  
11      how troubling this will be. But it's something  
12      that you just experience.

13              Okay, alternatives. This is the first  
14      slide. I tabulated the public comments we got and  
15      also some online information about whether the  
16      carrageenan had been able to be replaced in foods.

17              So, the first group of items is the  
18      dairy foods. We got testifiers who were able to  
19      replace it in chocolate milk which is one of the  
20      more popular items that may contain it, and we got  
21      some that said they could not replace it in  
22      chocolate milk.

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1 Whipping and heavy cream. Mostly we  
2 heard from people they were able to remove  
3 carrageenan.

4 Protein shakes with milk proteins was  
5 definitely one that was no. And we got comments  
6 like, "When calcium settles to the bottom of the  
7 container it forms a hard precipitate so no matter  
8 how much you shake it it can't be shaken up."

9 Milk powder - no. Yogurt, sour cream  
10 and cottage cheese, although there's quite a bit  
11 of anecdotes online, but we did not receive any  
12 comments about this.

13 Sugar-free spread used as a gelling  
14 agent. We got some that said yes, they had removed  
15 it, and some that said no.

16 Puddings. Some people said they  
17 couldn't remove it from puddings.

18 From fruit fillings, I guess like pie  
19 fillings.

20 I guess at least one brand of gummy  
21 bears which I'm not sure how you spell it, but they  
22 have removed it so eat all the gummy bears you want.

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1                   We heard on the webinar from a producer  
2 of vegan marshmallows and it is a replacement for  
3 gelatin in that use. And gelatin just is not  
4 vegan. So they could not replace it.

5                   Frozen soy desserts. We heard no  
6 replacement.

7                   Soy milk we heard both yes and no, or  
8 there is information for both yes and no.

9                   Vegetarian capsules for dietary  
10 supplements no because once again, gelatin.  
11 Infant formula, no.

12                   Processed meats, both yes and no. Some  
13 brands have removed it from sliced turkey and ham,  
14 and others not.

15                   Non-dairy beverages such as almond milk  
16 and rice milk, both yes and no.

17                   And beer as the processing aid, no,  
18 although since we have no idea how many beers are  
19 processed using it I imagine there are some that  
20 do not have it. But we didn't hear from them.

21                   VICE CHAIR CHAPMAN: Can I make a note,  
22 we did hear an oral comment that there was heavy

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1 whipping cream made without carrageenan.

2 MEMBER SONNABEND: I think I said that.

3 VICE CHAIR CHAPMAN: Did you say that?

4 MEMBER SONNABEND: Yes.

5 VICE CHAIR CHAPMAN: I thought that was  
6 a no.

7 MEMBER SONNABEND: No. I'll go back.  
8 Whipping and heavy cream, yes.

9 VICE CHAIR CHAPMAN: Oh you said yes,  
10 okay.

11 MEMBER SONNABEND: Okay. The  
12 Handling Committee will fully evaluate all the  
13 public comment received between now and the fall  
14 meeting.

15 Any new published research studies, but  
16 research studies only, not opinions, please, send  
17 to Michelle Arsenault.

18 Please provide actual text and not just  
19 abstracts so we don't pay \$35 all the time.  
20 Although the government can get us some of the  
21 literature, but usually not with a lead time  
22 between getting to the meeting and making this

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1 presentation.

2 So, there will be another comment  
3 period open in October before the fall meeting and  
4 we encourage more comments in that time regarding  
5 the alternatives to the use of carrageenan.

6 So, it's open for discussion.

7 MEMBER AUSTIN: Thanks, Zea, for  
8 bringing forward such a great presentation on such  
9 a complicated material.

10 Questions from the Board for Zea?  
11 Francis?

12 MEMBER THICKE: Just a comment.  
13 Sometimes I have to wonder how essential things are  
14 like heavy whipping cream.

15 We make heavy whipping cream and it  
16 never crossed our mind that we should put  
17 carrageenan in it. It's cream, I mean.

18 MEMBER SONNABEND: Well, that's one  
19 that has been successfully taken out.

20 MEMBER THICKE: Right, I understand  
21 that.

22 MEMBER SONNABEND: I mean, something

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1       like pie filling, I'm sure you make pie all the time  
2       and don't use carrageenan. But a processor who has  
3       to have it on the shelf, or freeze it, or whatever  
4       they're doing to it says they can't do it.

5                So, yes, that's what our job is is say  
6       should I make my own pie or buy pie with carrageenan  
7       in it.

8                MEMBER AUSTIN: Ashley?

9                MEMBER SWAFFAR: So, I do question the  
10      essentiality of carrageenan also.

11               Zea, do you think that they can make  
12      carrageenan organically? Can they have a  
13      certified organic product?

14               MEMBER SONNABEND: Well, yes. Once  
15      the -- I believe we have to have the aquaculture  
16      standards in place which will then affect plant  
17      products. No? Okay.

18               Well, but it's not wild harvested, it's  
19      farmed. And there's no rotation, for instance.

20               Well anyway, the answer is there is some  
21      certified kelp on the market. And there's no  
22      reason why seaweed which is also a kelp couldn't

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1 be produced that way, except not being on the  
2 certifying end of certifying any seaweeds I  
3 couldn't tell you what the issues are.

4 We could maybe ask some of the  
5 certifiers in the room who certify seaweeds what  
6 they use for standards. Maybe Scott could work on  
7 that between now and fall.

8 But yes, it should be able to. But you  
9 know, as the gentleman said who testified yesterday  
10 there hasn't been any need for them to.

11 And that would mean moving it to 606  
12 instead of 605(a) which I don't know if that would  
13 make the people who want us to remove carrageenan  
14 from food happy.

15 VICE CHAIR CHAPMAN: If it was  
16 certified it wouldn't need to appear on 606.

17 MEMBER SONNABEND: True. True. But  
18 would that make the protesters happy?

19 VICE CHAIR CHAPMAN: I doubt it.

20 MEMBER DE LIMA: Thank you, Zea.

21 MEMBER AUSTIN: Any other questions?

22 Harriet.

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1                   MEMBER BEHAR: So, I see on this, and  
2 you know, really the next six months I'll have even  
3 more time to digest and think about this.

4                   But the fact that it's on the National  
5 List now and people are using it makes it a lot more  
6 difficult to remove it.

7                   But on the other side since there are  
8 many studies that say that it causes problems so  
9 we think about the precautionary principle. And  
10 do we really want to have something that could cause  
11 harm to some or many people? It's a very difficult  
12 decision. I haven't made up my mind yet.

13                  But I think the fact that it's already  
14 on the list and so used it's really a lot of yanking  
15 the rug out from under people. But everyone who's  
16 using it should at this point know that we are in  
17 strong deliberation on it. So hopefully if it does  
18 come off it wouldn't have as negative an impact as  
19 maybe some other sunset items where people aren't  
20 as aware.

21                  MEMBER SONNABEND: You know, it's the  
22 issue of is -- for everything on the list probably

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1 some people have negative reactions to it.

2 How universal this is is to me just not  
3 totally proven. And you have to weigh -- if you  
4 use the precautionary principle on everything  
5 there would be very few things on the list.  
6 Because you can always find an issue about every  
7 single thing.

8 So, yes, we're struggling with really  
9 tough issues.

10 I do not feel that the absolute harm is  
11 proven, personally. And I do think there's a lot  
12 of misleading statements going on about what the  
13 research has actually shown so far.

14 And the scientists are fighting  
15 bitterly about this which makes it hard for us to  
16 say which scientist is right or not.

17 So that's why I really think everyone  
18 should read some literature for themselves.

19 And for people who want only the most  
20 -- what I consider the most key references on both  
21 sides I'm happy to point you in that direction  
22 instead of all I think 3,000 studies or something.

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1 I think you could read a dozen and get  
2 the gist of it.

3 MEMBER AUSTIN: Tracy?

4 CHAIR FAVRE: There's a few of us on  
5 this Board who've had the pleasure of having to  
6 debate this twice now because of the way the timing  
7 came up on sunset.

8 And I for one am really thankful we have  
9 the new process where we have two meetings to  
10 discuss it. Because you can imagine my first vote  
11 on this was my very first Board meeting in April  
12 after I came onboard in January. So, not a whole  
13 lot of time to digest it.

14 The struggle for me is it's already been  
15 reiterated here by other people, but we have  
16 competing studies.

17 The point about the precautionary  
18 principle is well made, Harriet. But I also think  
19 the strongest argument against arbitrarily making  
20 the decision about the precautionary principle,  
21 and I don't mean it as an arbitrary just whatever,  
22 is if it's listed on the ingredient panel you do

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1 have an opportunity to avoid it.

2 I would have a significant heartburn  
3 about it if it was in a product that's not listed  
4 like we've discussed in beer. And I don't think  
5 we have a clear understanding. Yes, it could be  
6 considered a processing aid, but is there any  
7 residual left in the product. We don't really know  
8 that yet. Although maybe if you're drinking beer  
9 you don't really care about what it does to your  
10 stomach.

11 So, some of the things that I was  
12 thinking about seeing in one of the environmental  
13 seats on the Board is the impact from the harvest.

14 I thought there was actually some  
15 pretty interesting information presented in public  
16 testimony over the last few days.

17 When asked with one of the presenters  
18 if it was a monoculture she answered yes, but at  
19 the same time she also talked about it being a  
20 nursery environment for other aquatic species  
21 which I actually think is kind of encouraging and  
22 could potentially help benefit those ecosystems.

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1           And certainly although it's not one of  
2           the criteria we can evaluate, it certainly provides  
3           livelihood to those farmers and potentially  
4           offsets the more environmentally damaging maybe  
5           overfishing of those fisheries in that area.

6           So this is a very complex issue. I will  
7           have to say I haven't fully decided. And I'm glad  
8           again that we have some time to do it, to figure  
9           it out.

10           MEMBER AUSTIN: Emily.

11           MEMBER OAKLEY: I do want to speak, but  
12           I think that Lisa was first.

13           MEMBER DE LIMA: Two things. One  
14           quick thing. Zea, can you go back to the chart you  
15           had with the products? Because I thought that  
16           somebody had written in a public comment that it  
17           was used in personal care products, but they  
18           weren't more specific than that.

19           MEMBER SONNABEND: I did not include  
20           personal care which toothpaste it's commonly used  
21           in. And I did not include pet food which it's  
22           commonly used in because those are outside our

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1 scope and the department has said not to evaluate  
2 those.

3 MEMBER DE LIMA: Okay. And then I just  
4 want to give my perspective from the retailer's  
5 seat.

6 Pretty much if you asked any retailer  
7 would you be sad to see carrageenan go away they're  
8 all going to say no, we'd be pretty happy. This  
9 has been one of the harder things to have a  
10 conversation with a customer about.

11 I mean, none of us are decided and we  
12 all get the benefit of public comment and all this  
13 time to look at it.

14 You can't really have this conversation  
15 with a consumer. It's just not realistic.

16 And so I'm conflicted because from the  
17 seat I sit in I think most retailers would like to  
18 just not have to deal with having this conversation  
19 with customers anymore.

20 And it was a huge relief to start to see  
21 products, especially the dairy products transition  
22 away.

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1           At the same time I don't want to go ahead  
2           and start pulling things off the list when it's  
3           debatable scientifically or environmentally and  
4           all the other criteria.

5           So, I just want to put that out there  
6           as someone that has a lot of interaction with  
7           consumers. We have 90,000 customers come through  
8           our doors every week. And it's definitely up  
9           there. And so it's a hard one for me.

10           MEMBER AUSTIN: Thanks. Emily.

11           MEMBER OAKLEY: I would touch on some  
12           of that. I think that although consumer  
13           perspective isn't a criteria and we have to look  
14           at the science which is of course conflicting I  
15           think we do need to take into account public  
16           perception.

17           And even though the public has varying  
18           degrees of education on this issue it's definitely  
19           integral in terms of their perception of the  
20           organic label.

21           Now, how many people deeply care about  
22           it? I don't know. But I do know that some of that

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1 can spill over just in a broader public arena,  
2 whether it's intended or whether the Board wants  
3 it to or not into perception, which can have a  
4 spillover effect in many other areas which I can  
5 elaborate later.

6 But one thing I wanted to address in  
7 terms of Tracy's issue is that even though I don't  
8 necessarily know that as a farmer representative  
9 on the Board I represent those farmers that is  
10 definitely something that brought me to  
11 agriculture in the first place, working with  
12 farmers throughout the world.

13 And I plan on doing some research. And  
14 I'd like to share with the committee and at the next  
15 meeting some of the farmer perspective on that, and  
16 whether or not some of these claims are completely  
17 accurate in terms of livelihood issues.

18 MEMBER AUSTIN: Jesse.

19 MEMBER BUIE: Zea, how many of those  
20 studies for and against have been replicated?

21 MEMBER SONNABEND: Well, with the  
22 really huge number of studies I haven't looked at

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1 every single one to see if it's replicated.

2 I'm just saying that especially the  
3 most recent ones that show diabetes precursors and  
4 glucose intolerance, those have not been  
5 replicated.

6 But keep in mind that this is being very  
7 actively researched, and the research group from  
8 Chicago is publishing two to four papers a year.  
9 And the other people are also publishing quite a  
10 lot of papers all the time. So, possibly by the  
11 next meeting some replication results will come  
12 out.

13 MEMBER BUIE: I think that will start  
14 to help us to make some decisions if we can get some  
15 repetitive accounting of the reports.

16 MEMBER AUSTIN: Zea, then Tracy, then  
17 Jean.

18 MEMBER SONNABEND: Okay, I want to  
19 mention for the sake of discussion the Board does  
20 have the option to restrict carriageen an to certain  
21 uses by an annotation.

22 The annotation will have to come at the

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1 next meeting as a separate proposal, or it could  
2 come at any future meetings as a separate proposal.

3 Right now to me the clear products that  
4 do not have options are the gelatin replacement  
5 ones, the vegan marshmallows and the capsules for  
6 dietary substances, and then also the infant  
7 formula does not seem to have a clear replacement.

8 But it would be the option of this Board  
9 to allow it in vegan products, or to craft an  
10 annotation that would limit its use to just those  
11 products where there is not a replacement yet.

12 MEMBER AUSTIN: Tracy.

13 CHAIR FAVRE: As Lisa was making her  
14 comments about the retailer's perspective it  
15 occurred to me that some of this might actually be  
16 moot if we let the market demand drive the product  
17 formulations to a certain extent.

18 I don't think there's any question that  
19 the formulators out there are seeing this and  
20 feeling this.

21 If it had never been on the list, if I  
22 was here today in this seat and it was coming to

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1 us as a petition I think my decision would have been  
2 much easier.

3 The fact that it's already on the list  
4 and there are companies and manufacturers and  
5 retailers that are using this product makes it in  
6 some ways more difficult to assess the impact.

7 But I also think since it is listed  
8 again people do have the option to avoid it. And  
9 while that's probably not the ideal circumstance  
10 it may by its own consequence just eventually fall  
11 out of use in organic products.

12 MEMBER AUSTIN: Jean.

13 MEMBER RICHARDSON: Thank you. I was  
14 going to raise the issue of a potential for an  
15 annotation as well, Zea. Maybe it is something  
16 that we should look at for the fall as well.

17 But my question is to Lisa. Lisa, you  
18 do the buying of product, right? Part of what you  
19 do in the retailer world that you work in.

20 Can you describe to us then what sort  
21 of has happened with carrageenan holding products?  
22 You've had consumers coming in, reading the label

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1 and saying get rid of that. We want X. To give  
2 us greater detail of how things are phasing out.

3 MEMBER DE LIMA: Yes, I mean that's the  
4 general sense, that consumers don't want to see  
5 that in the products.

6 I mean, I can't -- people are asking  
7 whether manufacturers had seen a slide in sales  
8 when they had taken it out. And I can't answer that  
9 for the manufacturer. I can only say from our  
10 perspective we haven't seen a big shift in sales  
11 to the negative when that's happened.

12 I mean, I can dig in and go SKU by SKU  
13 and bring some information to the subcommittee, but  
14 still that's only representative of our consumer  
15 base, not everybody's consumer base.

16 It's kind of awkward, but something  
17 that I've talked about with our sourcing team is  
18 sometimes we'll talk about yes, we've got this  
19 ingredient, whether it's carrageenan or something  
20 else that we're not sure we want to allow in  
21 products, but we've already got all these products  
22 on our shelf.

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1           And so sometimes we'll just talk about  
2 new products. And we'll say well, let's create a  
3 standard for new products and say we're going to  
4 deal with the existing products at some point, but  
5 for now any new products come in we might not allow  
6 carrageenan or another ingredient with that.

7           The problem with doing that is when it's  
8 on the National List it just looks kind of weird.  
9 It's a hard thing to say well, we're not going to  
10 allow it in products, but they are allowed in  
11 organic products. And so we haven't gone there in  
12 this case because it's a really awkward  
13 conversation to have with a customer, that it's  
14 allowed in organics but we're not going to allow  
15 it.

16           So we haven't gone there and we are  
17 taking new products. But there's definitely a lot  
18 less new products coming in, organic ones that have  
19 carrageenan in it.

20           VICE CHAIR CHAPMAN: Can I ask a  
21 follow-up question to this?

22           MEMBER AUSTIN: Sure.

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1                   VICE CHAIR CHAPMAN:       Have your  
2 consumers been asking about other, the like  
3 replacement gums or other gums? Carrageenan by  
4 far is the standout?

5                   MEMBER DE LIMA:       I haven't heard  
6 anything about other gums so far. So far.

7                   MEMBER AUSTIN:     Emily, did you have  
8 another question?

9                   Okay, I've got just some points to make  
10 on it as well.

11                   This is a difficult topic for all of us.  
12 Having been the lead on it in 2012 at that April  
13 meeting when it was supposed to be such a benign  
14 material, then to get lambasted like we did with  
15 -- that it's not quite as simple an issue around  
16 this as we thought.

17                   A couple of things I'll point out is  
18 when we looked at it and we renewed it back in 2012  
19 we had environmental concerns with the material as  
20 far as how it was being harvested.

21                   I think we've seen some presentations  
22 from some of the farmers.

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1           The reason I asked the one question  
2 yesterday was I did want to try to ferret out what  
3 it was doing to the environment in the waters where  
4 these materials were being harvested.

5           And it does, I think Tracy you alluded  
6 to it a little bit that it does seem like there is  
7 some beneficial parts to this that we weren't  
8 previously aware of back in 2012, that it does maybe  
9 possibly help the environment within the water, and  
10 as some breeding habitat and some other stuff that  
11 we weren't aware of.

12           The other point I want to make is it gets  
13 to a point where we do have a material that's on  
14 the list, and it's a decision that we're going to  
15 have to be faced with this fall, whether we're going  
16 to keep it or not.

17           There are stakeholders that have built  
18 product lines. There are stakeholders that have  
19 worked very diligently to try to remove this  
20 material. Many have removed this material out of  
21 their product lines. Many have not.

22           It comes down to a point, what does the

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1 organic community look to lose if we can't come  
2 together and decide whether to keep this or remove  
3 it.

4 We're going to have consumers that are  
5 going to lose choices. We're going to have  
6 handlers that are going to possibly lose materials  
7 and market share. We're going to have an organic  
8 industry that possibly faces stepping backwards to  
9 some degree.

10 So these are all things that we have to  
11 balance in the decisions that we make along with  
12 consumer perspective, human health, environmental  
13 health and all of these other factors.

14 So, we need to place that into a balance  
15 and look at everything when we're deliberating upon  
16 these types of issues and these types of materials.

17 As a handler rep I'm torn. But I know  
18 that there's a lot of people that are out there that  
19 use these materials that are looking to me to take  
20 and watch their backside, and do what I can to make  
21 sure that we make a clear, a just, and the right  
22 decision at the end of the day when we vote next

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1 fall.

2 And that's on all of us to do the  
3 reading, to follow the research, to listen to the  
4 presentations.

5 I think this is one material where all  
6 of the Board needs to pay attention to what's taking  
7 place this coming semester in the Handling  
8 Subcommittee, to keep as well informed on this  
9 particular material and this issue and topic as  
10 possible.

11 That's all I've got. We're burning  
12 some time so I don't want to take this on too much  
13 longer. Emily.

14 MEMBER OAKLEY: I just want to make one  
15 brief comment.

16 Although this isn't totally parallel,  
17 I think the environmental benefits should be looked  
18 at closely. That as a farmer I till up land, and  
19 while that might provide habitat for some frogs or  
20 some turtles, and they might move in there, I  
21 wouldn't ever say that what I've created in my farm  
22 ecosystem is better than the native ecosystem.

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1           And I think we should look at that in  
2 terms of this as well. If there are environmental  
3 benefits it can't possibly be greater than a  
4 natural ecosystem.

5           MEMBER AUSTIN: Zea, probably final  
6 comment on this.

7           MEMBER SONNABEND: Just, yes, one  
8 concluding comment.

9           This presentation is available to us  
10 through our normal repository for files under the  
11 NOSB presentation folder. And it will stay there  
12 after the meeting if you do want to refer to it.

13           MEMBER AUSTIN: Thanks, Zea. Great  
14 discussion on an extremely difficult topic.

15           Moving on, glucono delta-lactone. Dr.  
16 Brines.

17           DR. BRINES: Thank you. This  
18 substance is included under Section 205.605 of the  
19 National List, also under paragraph A,  
20 Non-Synthetics Allowed, and reads as glucono  
21 delta-lactone, production by the oxidation of  
22 D-glucose with bromine water is prohibited.

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1           In support of the review this round the  
2 Handling Subcommittee did request the development  
3 of a new technical report. That report was  
4 completed and is available to the Board and the  
5 public on the National Organic Program website.  
6 Thanks.

7           MEMBER AUSTIN: Thank you. Tom?

8           VICE CHAIR CHAPMAN: Thank you.  
9 Glucono delta-lactone herein referred to as GDL is  
10 primarily used in the production of tofu,  
11 particularly in the production of silken tofu.

12           In that production it's used as a  
13 coagulant. It can also be used as a curing agent,  
14 a leavening agent, pH control agent, and a  
15 sequestrant.

16           There's a variety of ways which GDL can  
17 be produced. The most common form has gluconic  
18 acid produced via a process called the Blom process  
19 in which gluconic acid is produced via fermentation  
20 of glucose syrups.

21           Sodium hydroxide or calcium carbonate  
22 is added to this to produce gluconate salts. The

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1 gluconate salt is isolated via evaporation,  
2 crystallization, conversion via ion exchange.

3 The process that produces GDL via an  
4 acid-based reactions and fermentations which we  
5 have classically classified as non-synthetic.

6 Other processes to make GDL involve  
7 oxidation with bromided water which is disallowed  
8 -- bromine water which is disallowed by the  
9 annotation, as well as oxidation with purified  
10 enzymes.

11 GDL does not appear on any  
12 international organic certification list that I  
13 could find.

14 Public comment on this. We received  
15 two comments from public interest groups that  
16 questioned the necessity of the substance as well  
17 as the possible presence for GMOs in the  
18 manufacturing process.

19 And we received comment from eight  
20 handlers or trade associations commenting on the  
21 necessity mostly around tofu production.  
22 However, we did receive one oral comment saying

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1 that it's used in dairy products. So it wasn't  
2 clear to me if that was used in organic dairy  
3 products today.

4 MEMBER AUSTIN: Thanks, Tom. Any  
5 questions from the Board? I don't see any.  
6 Thanks, Tom.

7 Next we will move on to tartaric acid.  
8 Dr. Brines, if you would, please.

9 DR. BRINES: Thank you. This  
10 substance is included also under Section 205.605  
11 of the National List under paragraph A,  
12 Non-Synthetics Allowed, and reads as tartaric acid  
13 made from grape wine. Thanks.

14 MEMBER AUSTIN: Thank you. Ashley, I  
15 believe you're the lead.

16 MEMBER SWAFFAR: Tartaric acid has  
17 many uses including pH control, emulsification,  
18 stabilization, anti-caking and as a firming agent.

19 During the comment period we did hear  
20 from several wine makers on the importance of  
21 tartaric acid in the wine-making process with one  
22 commenter stating that tartaric acid is the single

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1 most important input allowed in organic wine  
2 making.

3 And we also heard from candy  
4 manufacturers supporting the relisting of tartaric  
5 acid.

6 And there was a question raised whether  
7 tartaric acid made from organic grape wine is  
8 available. And I do plan to add that at the bottom  
9 of our posting next time under the question  
10 section.

11 MEMBER AUSTIN: Thank you. Any  
12 questions from the Board? Tom.

13 VICE CHAIR CHAPMAN: So, I mean, I  
14 think I know the answer to this one, but I was a  
15 little confused.

16 So, it's used in wine and it's produced  
17 from wine?

18 MEMBER SWAFFAR: Yes. There was one  
19 in there, like --

20 VICE CHAIR CHAPMAN: It's like certain  
21 wines have too much of it. Is it a byproduct from  
22 the pressing process, do you know?

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1                   MEMBER SWAFFAR:  -- that talked about  
2                   like in California and that it was such a warm  
3                   climate they needed it to control the pH.

4                   VICE CHAIR CHAPMAN:  I get its use in  
5                   wine, I guess.  If it's used in wine and then it's  
6                   produced from wine.  It's like an endless cycle.

7                   MEMBER SWAFFAR:  Regenerative.  Yes.

8                   MEMBER AUSTIN:  Any other questions?  
9                   Thank you, Ashley.

10                  Next we will discuss cellulose.  Dr.  
11                  Brines?

12                  DR. BRINES:  Thank you.  Cellulose is  
13                  included under Section 205.605 of the National List  
14                  under paragraph B, Synthetics Allowed.

15                  It reads as cellulose for use in  
16                  regenerative casings as an anti-caking agent,  
17                  non-chlorine bleached and filtering aid.

18                  In support of the review this round the  
19                  Handling Subcommittee did request the development  
20                  of a third party technical evaluation report.

21                  That report was completed and is  
22                  available to the public and the Board members on

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1 the National Organic Program website. Thank you.

2 MEMBER AUSTIN: Thank you. I'm the  
3 lead on this one.

4 Cellulose in its natural form is the  
5 main structural component of higher plant cell  
6 walls, one of the most abundant organic substances  
7 on Earth.

8 Most commercially available cellulose  
9 for the powdered form is produced from wood pulp  
10 and other plant sources.

11 The original process for making  
12 regenerated cellulose is called viscose method,  
13 converts cellulose fibers into regenerated fibers  
14 and films, and with some minor changes this process  
15 is still primarily in use today.

16 And I would point out that that was a  
17 process that was invented in the eighteen nineties.

18 For this first posting for cellulose  
19 there are currently two specific types of cellulose  
20 permitted in organic handling and processing.  
21 There's powdered cellulose and inedible cellulose  
22 casing.

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1           The uses are as follows. They're used  
2 as a processing aid for filtering juices and wines,  
3 also as an anti-caking agent for use in shredded  
4 cheese and other cheese products, also a processing  
5 aid in the inedible peelable hot dog and sausage  
6 casings.

7           Cellulose has been allowed for use in  
8 organic handling even prior to the creation of  
9 OFPA.

10           Some certifiers allowed it in use in  
11 cheeses since 1994, for some organic meats since  
12 1999. It's been allowed by several certifying  
13 bodies for international uses in organic handling  
14 as well.

15           As I said, there are numerous uses for  
16 cellulose in food handling, but not all uses are  
17 allowed in organic food production and handling.

18           This is a material that was in use by  
19 organic handlers even before the formation of the  
20 organic program and the creation of the National  
21 List.

22           We did receive a TR for this material,

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1 and in that TR and along with written comments  
2 provided it did answer one of our questions about  
3 one of the ancillary materials and substances that  
4 could be found in cellulose.

5 Some of these are resin, glycerin,  
6 propylene glycol used in the sausage and cured  
7 meats, and dextrose enzymes used in cheese  
8 production.

9 It also mentions that mineral oil can  
10 sometimes be used as well as another commenter  
11 mentioned that polysorbate-80 could also be found  
12 as an ancillary material.

13 The TR does go on to mention that there  
14 are well defined sources of commercially available  
15 cellulose that do not include these ancillary  
16 substances.

17 A couple of environmental concerns that  
18 have been raised in the TR that we received on  
19 February 11 as well as in public comment.

20 One of those concerns, and this is a  
21 concern that have been raised in the past, are  
22 associated with the source which is from the

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1 logging of trees for wood from which cellulose is  
2 derived.

3 The TR further mentions that some  
4 ecosystems have been replaced with fast-growing  
5 species of wood pulp trees.

6 Recycling and the use of alternative  
7 crops will help mitigate some of the impact of this.

8 An additional concern raised was about  
9 cellulose waste generated from food processing.

10 These concerns could be mitigated with  
11 current research that is looking at conversion of  
12 this waste into useful products as mentioned in the  
13 TR under Daws and Singh 2004.

14 Also, recycling and the use of  
15 alternative crops will help mitigate the impact of  
16 cellulose manufacturing on biodiversity according  
17 to this document attached in the TR from Roberts  
18 2007.

19 The Select Committee on GRAS Substances  
20 released a report SCOGS 2015 that states, "There  
21 is no evidence in the information currently  
22 available today that demonstrates or suggests any

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1 hazards to the public at the levels that are  
2 currently used or might reasonably be used in the  
3 future."

4 Historic discussion. During the  
5 October 16, 2001 NOSB fall meeting the original  
6 discussion around listing of cellulose for use in  
7 organic handling first took place.

8 It was determined then that there were  
9 two sources of cellulose approved for use in  
10 organic food processing and handling. That would  
11 be regenerative casings and powdered cellulose  
12 used for anti-caking and as a filtering aid.

13 Part of that discussion during that  
14 time was considered around whether or not the word  
15 "powdered" should be added. This was one of the  
16 questions that we sent in our proposal out for  
17 comments back.

18 It was ultimately decided at that point  
19 not to add that more restrictive word.

20 During the last sunset cycle in 2012 the  
21 word "powdered" was part of an annotation. When  
22 the NOP did the 2013 sunset docket they were not

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1 able to make that change to the annotation due to  
2 the lack of time needed to add the changes, inform  
3 the public, and the need to determine and estimate  
4 the impact that this more restrictive annotation  
5 might have due to lack of time needed to add the  
6 changes and inform the public, and need to  
7 determine and estimate the impact.

8 So it still exists today as it was  
9 previously listed. So it still remains unclear at  
10 this time if the word "powdered" should be added,  
11 or if it should not be added as a means to limit  
12 the types of cellulose for particular uses that  
13 should be included on the National List by the NOSB.

14 It's also not clear if there's any  
15 further actions that we the NOSB or the Handling  
16 Subcommittee should take based off of that previous  
17 recommendation.

18 I think we would like to see some  
19 feedback from the program on that as we move forward  
20 to this next semester of work on this material.

21 I would also like to mention that also  
22 at the spring 2012 meeting the certifiers and

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1 handlers provided information to confirm that  
2 microcrystalline form of cellulose was not used in  
3 organic handling.

4 This is a question that has come up,  
5 continues to come up in public comments. And that  
6 is part of the reason why and the rational why they  
7 wanted the word "powdered" added to the annotation,  
8 to be a little bit more restrictive on what  
9 materials actually could be -- the forms of  
10 cellulose actually could be allowed.

11 Written public comment provided us all  
12 kinds of answers to that across the board. We have  
13 those supportive. We have those that were not  
14 supportive. We've got those that really didn't  
15 know if it would make a big deal if we added it or  
16 we didn't have it on there.

17 So, I don't think we gained any traction  
18 on clarification on that. I think we've had just  
19 as many answers back from comments to not add  
20 "powdered" as we had to add "powdered" and some that  
21 just weren't certain on what that impact would  
22 possibly have to the annotation if we were to do

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1       that.

2                   We did get back roughly 18 written  
3       comments, 2 oral comments via the webinar, and 4  
4       during our in-person testimony over the last couple  
5       of days.

6                   There were several industry and  
7       certifier surveys that showed material was still  
8       much used and listed as critically important.

9                   One public interest group, while taking  
10      a neutral position would support the annotation to  
11      read "Amorphous powdered cellulose and inedible  
12      cellulose casings" then they would support it if  
13      we changed the annotation to read that, while  
14      another was opposed, stating that alternatives do  
15      exist.

16                   And we've heard from others in support  
17      of the material that there are no alternatives,  
18      especially for the casings that exist other than  
19      some form of plastic.

20                   Those who supported also said that it  
21      is still critical in their cheese processing. And  
22      as I just stated, skinless hot dogs and sausages.

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1 It's also used in wine and juice production as an  
2 anti-caking agent.

3 And previous reviews have found no  
4 substantial risk to the environment, human health,  
5 or animal health from its manufacture or uses.

6 We did get answers to our ancillary  
7 questions. And I want to say at this point that  
8 I do appreciate the number of comments, both in  
9 favor and those that were questioning whether or  
10 not we needed annotations on this.

11 Thank you. I'll open it up for any  
12 questions from the Board at this time. Emily.

13 MEMBER OAKLEY: So, are you guys still  
14 unclear as to whether or not you want to add the  
15 annotation that you had in 2012? Or you're seeking  
16 more information?

17 MEMBER AUSTIN: Two points I'll make is  
18 that the subcommittee -- one point I should have  
19 made to begin with.

20 The subcommittee was pretty much in  
21 favor of the continued listing of this material.

22 As far as the annotation, that's why I

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1 read it into the public record right now because  
2 I think we -- there's an annotation that was  
3 already, and a motion that was already moved  
4 forward back in 2012 that was not able to be acted  
5 upon.

6 And I would like for the National  
7 Organic Program to give us feedback on whether they  
8 can still act upon that, or if they still need  
9 further continuation and another action from our  
10 subcommittee and this Board to move that forward.

11 So it's still unclear. So we need a  
12 little bit of clarity and direction provided back  
13 to us from the program on that. Based off of the  
14 2012 motion that was passed by the Board.

15 Jean.

16 MEMBER RICHARDSON: Yes, a couple of  
17 questions, Harold. On the regenerative casings  
18 they're normally not eaten, is that correct?

19 MEMBER AUSTIN: Correct. Those are  
20 generally peelable.

21 MEMBER RICHARDSON: Because the  
22 alternatives are the animal intestines that we

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1 passed at the last Board meeting? Okay.

2 On the anti-caking agents, for example,  
3 in like parmesan cheese for example. So I buy a  
4 container of organic parmesan cheese that's  
5 already grated up. Will that have the cellulose  
6 on the label?

7 MEMBER AUSTIN: Yes, it should. Yes.  
8 The substance should be on that label for that  
9 specific use.

10 MEMBER RICHARDSON: So it will be on  
11 the label. So people again have a choice to avoid  
12 it if they don't want it.

13 MEMBER AUSTIN: Correct.

14 MEMBER RICHARDSON: Because the  
15 average consumer is not going to like to think  
16 they're eating wood or recycled cardboard.

17 MEMBER AUSTIN: Yes.

18 MEMBER RICHARDSON: I mean, I sit in  
19 the consumer seat so I'm trying to think of how we  
20 would feel looking at the cellulose.

21 MEMBER AUSTIN: Well, and I think if we  
22 look, I mean like I said on the casing material.

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1 You know, it's processed and a material that's been  
2 used since 1890. So it's not like this is  
3 something that's brand new and hasn't been around  
4 and just popped up overnight.

5 So I think probably all of us have been  
6 eating it in one way, shape, or form for a lot longer  
7 than we want to think about. Francis?

8 MEMBER THICKE: Jean, there was an  
9 episode on Dr. Oz in which he made a big deal about  
10 looking.

11 And I looked at the cheese labels and  
12 sure enough, there it is. I think he mentioned it  
13 was in organic too.

14 MEMBER RICHARDSON: Dr. Oz. Now we  
15 know what he listens to.

16 MEMBER AUSTIN: Tom?

17 VICE CHAIR CHAPMAN: I'm not a  
18 particular fan of pre-shredded cheese myself.  
19 That's why I buy a block and shred it myself.

20 But I would equally say do your  
21 consumers want pre-shredded cheese. Is this the  
22 cost that it comes with.

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1                   MEMBER AUSTIN: And the comments that  
2 we did receive back says that they have looked at  
3 other ways to try to formulate that. And without  
4 the cellulose there would be no shredded cheese.

5                   Any other comments? Questions?  
6 Harriet.

7                   MEMBER BEHAR: Way back when I worked  
8 for Organic Valley. I left there in 1996, but I  
9 helped put this product on the National List when  
10 I worked there. And I am part of that annotation  
11 of non-chlorine bleached was because the chlorine  
12 bleached cellulose does carry the risk of dioxin  
13 production.

14                   And I know that it has been very useful  
15 for shredded cheese.

16                   And when I did talk to many scientists  
17 at that time I remember someone said to me a lot  
18 of people chew on toothpicks, so there isn't always  
19 an aversion to having wood in your diet.

20                   MEMBER AUSTIN: Thank you. Any  
21 further questions? Tracy.

22                   CHAIR FAVRE: Harold, I think Dr.

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1 Brines had a request to clarify some of the language  
2 on the annotation.

3 MEMBER AUSTIN: Dr. Brines.

4 DR. BRINES: Thank you. Yes, in  
5 response to the question about the status about the  
6 past NOSB recommendation to change the annotation  
7 on the substance that recommendation is under  
8 consideration by the National Organic Program.  
9 And the plan is for us to include it in a future  
10 proposed rule on the National List which is  
11 currently in development.

12 So, for the purpose of this sunset  
13 review the Board does need to look at the current  
14 listing of the material. But I just wanted to keep  
15 the Board informed that that old recommendation is  
16 still under consideration. Thank you.

17 MEMBER AUSTIN: Thank you for that  
18 clarification. Any additional questions? All  
19 right, we'll continue to move forward.

20 Next will be potassium hydroxide. Dr.  
21 Brines?

22 DR. BRINES: Thank you. This

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1 substance is also included under Section 205.605  
2 of the National List under paragraph B for  
3 Synthetics Allowed.

4 The listing reads as potassium  
5 hydroxide prohibited for use in lye peeling of  
6 fruits and vegetables except when used for peeling  
7 peaches.

8 In support of the review the Handling  
9 Subcommittee did request the development of an  
10 updated technical evaluation report. That report  
11 was completed and is available to the public and  
12 Board members on the National Organic Program  
13 website. Thank you.

14 MEMBER AUSTIN: Thank you. Ashley?

15 MEMBER SWAFFAR: So, potassium  
16 hydroxide is a synthetic inorganic compound  
17 produced by the electrolysis of potassium  
18 chloride, also known as potash.

19 It is a strong base in alkaline in  
20 solution and it has many uses including as a  
21 cleaning agent, pH adjustment, stabilizer and the  
22 peeling of peaches.

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1           We had a limited number of commenters  
2           on this substance, but we did hear that it is used  
3           as a processing aid in buttermilk.

4           And several certifiers written in and  
5           stated -- only those who wrote in -- approximately  
6           70 of their operations have potassium hydroxide  
7           listed on their organic system plan.

8           And we also did hear from some members  
9           of the community stating their concern on potassium  
10          hydroxide's hazards with several good questions  
11          raised in those comments. And we will be looking  
12          into those in committee.

13           MEMBER AUSTIN:       Thank you.       Any  
14          questions from the Board?   Zea.

15           MEMBER SONNABEND:   Well, this is not a  
16          question but a comment.

17           Historically this is one of the very  
18          most controversial materials that ever got added  
19          to the list. And a few commenters were not around  
20          -- well, most people weren't around. Me and a few  
21          of us.

22           But there are NOSB meetings in the past

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1 where we heard extensive, extensive public  
2 comments about its use in peaches in particular.

3 But this time we got some of the public  
4 commenters who hadn't gone back to the record and  
5 said well, we haven't really heard from anyone  
6 about the necessity of this material and we think  
7 you should do a full investigation.

8 So, I would just suggest that anyone  
9 with concerns go back and look at the old records.  
10 I hope most of it is captured. I know one meeting  
11 in particular we had dozens of commenters about  
12 this. And it is there in the past historic record.

13 MEMBER AUSTIN: Thanks, Zea. Jean,  
14 you had a question?

15 MEMBER RICHARDSON: Yes, my question  
16 was somewhat similar to Zea's comment so I'm not  
17 sure whether I really need to go there.

18 But how do you think we are trending in  
19 our discussion on the Handling Committee on this?  
20 To me it doesn't seem terribly necessary.

21 MEMBER AUSTIN: Zea, go ahead.

22 MEMBER SONNABEND: It's absolutely 100

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1 percent necessary for canned peaches.

2 Now, whether you think canned peaches  
3 is an essential part of the diet or not. And it's  
4 also used in IQF.

5 It was first put on only for canned  
6 peaches. And it would have killed anyone growing  
7 clingstone peaches which are primarily used for  
8 canning throughout the country if it was not  
9 allowed.

10 But then of course much more people eat  
11 frozen peaches and so it was added IQF as an  
12 additional use for it because while hot water is  
13 the alternative, but on the scale that they make  
14 frozen or canned peaches hot water is just not  
15 realistic.

16 We had among the testimony is one  
17 gentleman who has since passed on, but who was a  
18 cling peach grower and had done hot water  
19 experiments on his peaches. And they just came out  
20 so unbelievably mushy that it just wouldn't be  
21 acceptable to consumers.

22 And so that's what led to it being put

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1 on the list, for those particular uses.

2 The other uses I cannot really comment  
3 on.

4 MEMBER AUSTIN: Emily.

5 MEMBER OAKLEY: I just want to clarify  
6 that, Zea, you had that almost right. It was just  
7 the original listing and the petition was for the  
8 IQF peaches only. And then just a couple of years  
9 ago we amended it to drop which format of processing  
10 peaches. But basically for all processing.

11 And I'd also like to add that we  
12 recently located the original 2001 petition and we  
13 scanned it all. And there's a ton of the original  
14 data from all those peach-peeling experiments, et  
15 cetera, on the National List substance database.

16 MEMBER AUSTIN: Thank you. Tom?

17 VICE CHAIR CHAPMAN: Let's go to Jean's  
18 follow-up and then me.

19 MEMBER AUSTIN: Okay, Jean.

20 MEMBER RICHARDSON: Yes, quick  
21 follow-up. So, if it's so important why is it  
22 apparently not allowed in other parts of the world

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1 for this purpose?

2 MEMBER SONNABEND: I don't know what  
3 the canned and frozen peach industry is like in  
4 other parts of the world for organic so I can't say.

5 MEMBER AUSTIN: Maybe somebody in the  
6 listening audience will be able to provide us with  
7 some written comments to that effect prior to our  
8 fall meeting. Tom.

9 VICE CHAIR CHAPMAN: So this is also  
10 used in the blackening of cocoa powder. So, if you  
11 want your Newman's O's or organic Oreos, potassium  
12 hydroxide.

13 MEMBER AUSTIN: Thank you. Ashley.

14 MEMBER SWAFFAR: Jean, is it allowed in  
15 other parts of the world, but not for the peeling  
16 of fruits and vegetables. Just the pH adjustment.

17 MEMBER RICHARDSON: Right. No, I  
18 understand it's used for a pH adjustment, but it's  
19 not used for this purpose as far as I know in canned  
20 peaches in Europe.

21 For cocoa it definitely is. The Dutch  
22 process started.

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1                   MEMBER AUSTIN:       Any additional  
2 questions or comments?   Seeing none we'll move on.  
3 Thank you, everybody.

4                   Next will be silicon dioxide.   Dr.  
5 Brines.

6                   DR. BRINES:       Thank you.       This  
7 substance is included under Section 205.605 of the  
8 National List under paragraph B, Synthetics  
9 Allowed.

10                  Note one correction.   On the meeting  
11 materials it's listed under paragraph A but it is  
12 paragraph B and it's correct elsewhere in the  
13 document.

14                  The listing reads as follows.   Silicon  
15 dioxide permitted as a defoamer, allowed for other  
16 uses when organic rice hulls are not commercially  
17 available.   Thanks.

18                  MEMBER AUSTIN:   Thank you.   Lisa?

19                  MEMBER DE LIMA:   So, silicon dioxide is  
20 used as an anti-caking agent, an absorbent, a  
21 defoaming agent, a filtration agent for beer.

22                  It's manufactured by vapor phase

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1 hydrolysis. It can be produced as a nanomaterial  
2 but for organics the material would have to be  
3 petitioned to be placed on the National List.

4 We requested that the public give us a  
5 better understanding of where rice hulls weren't  
6 a viable alternative and why.

7 And feedback included that rice hulls  
8 don't work in powdered cheeses, dry flavors, fruit  
9 powders, rice syrup solids, as a flow agent for  
10 spice and seasoning blends, and we were also told  
11 that it's used to meter seed during the seed  
12 pelleting process.

13 Public comment was generally  
14 supportive of retaining on the National List.

15 We did have one comment from a retailer  
16 who was not supportive because silicon dioxide  
17 could be produced by nanotech. But I already  
18 addressed that as far as in organics it wouldn't  
19 be allowed.

20 One commenter wanted us to revisit the  
21 language of the annotation that the previous Board  
22 put forth in that that language was not exactly

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1 adopted by the NOP.

2 And another organization just called  
3 for more research into alternatives for the  
4 anti-caking and filtration uses before the next  
5 sunset.

6 MEMBER AUSTIN: Thank you. Any  
7 questions for Lisa from the Board? Tom?

8 VICE CHAIR CHAPMAN: I just want to  
9 draw the attention to a public comment we got from  
10 PowderPure. It's a manufacturer of organic fruit  
11 and vegetable powders, other food powders.

12 They provided a video and their link to  
13 YouTube which is 20 minutes long with about 30  
14 seconds of content much like when I speak.

15 But it really shows how rice hulls and  
16 silicon dioxide, how effective they are in powders  
17 at different temperatures. I highly recommend  
18 watching that video to get a sense of how equivalent  
19 these products are, how effective rice hulls are  
20 comparative to silicon dioxide.

21 And if you don't want to watch the  
22 video, silicon dioxide was clearly the better flow

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1 agent where at like about 100 degrees Celsius all  
2 the powders would block up with the rice hulls.

3 MEMBER AUSTIN: Jean.

4 MEMBER RICHARDSON: A question for the  
5 lead person.

6 As a consumer do I have to be worried  
7 about the human health impacts of the silicon  
8 dioxide from the research that you did as you  
9 developed this initial work?

10 MEMBER DE LIMA: I'm going to say no.  
11 I mean, nothing new came up when we were doing the  
12 review in subcommittee indicating so.

13 MEMBER AUSTIN: I would probably point  
14 out that this is material that has been on the  
15 National List that has been reviewed for human  
16 health and environmental concerns in the past prior  
17 to our current sunset review.

18 And I don't think there was anything  
19 significantly that has been brought before our  
20 subcommittee at this point that would tell us  
21 negative or otherwise to the contrary of what's  
22 been seen in previous reviews.

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1 Lisa?

2 MEMBER DE LIMA: I will say, Jean, that  
3 we've had some consumer question, but it's  
4 specifically because they hear that silicon  
5 dioxide can be produced via nanotechnology.

6 So when I get consumer questions it's  
7 specific to the nanotech.

8 MEMBER AUSTIN: Any additional  
9 comments or questions?

10 Seeing none we'll continue to move onto  
11 our final sunset 2018 material which was colors,  
12 beta-carotene extract. Dr. Brines?

13 DR. BRINES: Thank you. This  
14 substance is included under Section 205.606 of the  
15 National List, Non-Organically Produced  
16 Agricultural Products Allowed as Ingredients in or  
17 on Processed Products Labeled as Organic.

18 It appears under paragraph D, colors  
19 derived from agricultural products must not be  
20 produced using synthetic solvents and carrier  
21 systems, or any artificial preservative.

22 The listing reads under 2,

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1 beta-carotene extract, color derived from carrots  
2 or algae, pigment CAS No. 7235-40-7. Thank you.

3 MEMBER AUSTIN: Thank you. Jean, if  
4 you would give the subcommittee's presentation for  
5 the full Board, please.

6 MEMBER RICHARDSON: Yes. You'll  
7 recall we did a lot of the colors at our last sunset  
8 meeting and this one has a different sunset date.

9 So, in looking at the beta-carotene as  
10 used for color, in other words it's obviously going  
11 to be -- its primary purpose is color. It's not  
12 as a vitamin A source.

13 We posed several questions for this  
14 material because originally it tended to be used  
15 from carrots, and of course they were non-organic  
16 carrots because of the lack initially of there  
17 being a lot of organic carrots available even  
18 though today you'd think that there would be a lot  
19 of carrots available.

20 However, the research from the users of  
21 the beta-carotene color indicate that the carrot  
22 color doesn't give them the depth or intensity of

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1 color, or the stability, and so the trend over time  
2 has actually been for as far as I can tell from the  
3 works that I've looked at including the technical  
4 report is that nowadays most of the beta-carotene  
5 for color comes from algae.

6 And of course this will also be one of  
7 the materials that we'll be looking at this summer  
8 as we look at all of the various seaweed plant  
9 materials that are being used.

10 I did ask some questions on which  
11 species of algae are used and from where are they  
12 harvested. There is some of this information in  
13 the TR.

14 But I didn't get any additional  
15 response on that from the posting from the general  
16 public, and didn't therefore get any information  
17 that would allow me to understand whether or not  
18 these harvested seaweeds in the red algae group are  
19 able to be then wild crafted.

20 Some of the species like the genus  
21 Dunaliella is being cultivated. And one would  
22 imagine that this could in fact be a certified

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1 product since it's not in an ocean system, but  
2 they're in kind of big lakes and things, especially  
3 in Australia.

4 So, it would be great if we could have  
5 people out there that are using it to get us some  
6 more information as to what their sources are for  
7 the material that they're using from industry.  
8 That would be helpful for us as we deliberate this  
9 this summer.

10 What we got in public comment is some  
11 of the, let's see, we have two certifiers. We  
12 didn't get a lot of public comment.

13 Two of the certifiers simply listed  
14 those producers that used it. Not extensive, but  
15 there was a number from one of them in particular.

16 One certifier indicated that they  
17 didn't have any of their clients using it.

18 We had two manufacturers who obviously  
19 would like to see it continue to remain on the list,  
20 especially because of the need to have a deeper  
21 stability and a depth of color.

22 Three consumer groups would recommend

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1 that it is not essential and that there are organic  
2 sources. Although they again were talking  
3 particularly about carrots, and it's my  
4 understanding that most of it is as I say coming  
5 nowadays from a culture system of *Dunaliella*, two  
6 different species of it that are produced in high  
7 salt, nitrate-rich medium.

8 So, I wish that we'd got more  
9 information back from the public on this as to  
10 whether or not it's really available organically,  
11 or could be potentially organically obtained from  
12 either carrots, organic carrots, or from the  
13 seaweeds.

14 So, it's a mixed bag of response that  
15 we got for that. So we will have to deliberate  
16 whether or not this is really essential or not when  
17 we get into our discussions this summer.

18 MEMBER AUSTIN: Thank you, Jean. Any  
19 comments or questions from the Board or the  
20 subcommittee? Lisa?

21 MEMBER DE LIMA: So, to the first  
22 question that was put out to the public about

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1 extraction methods, we didn't get anything back?  
2 No.

3 MEMBER AUSTIN: Harriet.

4 MEMBER BEHAR: In what type of foods is  
5 this color typically used?

6 MEMBER RICHARDSON: Types of foods. I  
7 don't have a perfect answer to that, sorry. But  
8 I'll look into it for you.

9 MEMBER AUSTIN: Ashley.

10 MEMBER SWAFFAR: Harriet, one  
11 commenter stated they use it in like crackers and  
12 snack foods and stuff like that.

13 MEMBER AUSTIN: Tom.

14 VICE CHAIR CHAPMAN: I don't know, but  
15 we did get a commenter asking I believe about, you  
16 know, can annatto be used in its place, or can other  
17 yellow colors already -- like turmeric and the  
18 other yellow colors are on there.

19 I'd be curious to know the applications  
20 that require beta-carotene versus the other  
21 yellows that are there.

22 MEMBER RICHARDSON: I was doing all the

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1 color, or at least a large number of them last fall  
2 when we were looking at the wide range of them.

3 And as I recall what they like about the  
4 beta-carotene is the strength of its color. So  
5 that they can have it -- it's concentrated. And  
6 so therefore they get more stability and a greater  
7 depth of color compared with the use of the other  
8 colors that may in that group provide a degree of  
9 that color.

10 MEMBER AUSTIN: Harriet.

11 MEMBER BEHAR: Are there ancillary  
12 substances with it?

13 MEMBER RICHARDSON: Not that I'm aware  
14 of.

15 MEMBER AUSTIN: Any further questions  
16 or comments? All right. Thank you, Jean.

17 All right, well that concludes the  
18 Handling Subcommittee's presentation to the Board  
19 and those present for our 2018 sunset materials  
20 under the first meeting review.

21 Madam Chair, we're ready to move on into  
22 our proposals.

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1 CHAIR FAVRE: Question for the Board.  
2 We're scheduled to have a break at 10:30. It's  
3 10:25 now. Would we prefer to take a break now,  
4 come back and do the proposal materials since we'll  
5 have a vote on those? Yes?

6 Okay, folks, we're going to go ahead and  
7 take a 15-minute break now. So I'd like everybody  
8 back here at 10:40. Thank you.

9 (Whereupon, the above-entitled matter  
10 went off the record at 10:26 a.m. and resumed at  
11 10:42 a.m.)

12 CHAIR FAVRE: Thanks, everyone. I  
13 want to go ahead and continue with Handling  
14 Subcommittee. Harold?

15 MEMBER AUSTIN: Thank you, Tracy.  
16 Okay, the Handling Subcommittee has five proposals  
17 that we'll be moving into and discussing next.

18 The first material that we will be  
19 talking about, actually two materials, will be  
20 sodium and potassium lactate. With that I'll turn  
21 it over to Dr. Brines, please.

22 DR. BRINES: Thank you. Yes, this

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1 includes both sodium and potassium lactate. And  
2 it was put onto the NOSB's agenda as a result of  
3 a petition submitted on January 5, 2004, from  
4 Applegate Farms.

5 It was not initially voted on at that  
6 time, but was added back onto the work agenda as  
7 a memo from the National Organic Program to the  
8 National Organic Standards Board. The memo is  
9 dated June 25, 2014, and contains additional  
10 background on the issue.

11 The petition requests the addition of  
12 these two lactate salts to Section 205.605 of the  
13 National List for use in meat processing.

14 In support of the review a technical  
15 evaluation report was completed in 2015. The  
16 scope of that report included lactic acid which was  
17 up for sunset review at the time as well as sodium  
18 lactate and potassium lactate in anticipation of  
19 the review by the Handling Subcommittee.

20 These two petitions were also on the  
21 agenda of the October 2015 NOSB meeting. The  
22 previous proposal from the 2015 meeting is posted

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1 on the website as well as the petition, the  
2 technical report, the NOP memo to the Board and the  
3 meeting materials for this meeting. Thank you.

4 MEMBER AUSTIN: Thank you, Dr. Brines.

5 Okay, so we have before us a proposal  
6 to add these two substances to the National List.  
7 We did, as Lisa said, we referred them back to the  
8 Handling Subcommittee at the fall 2015 NOSB meeting  
9 in Stowe.

10 The reason for doing so was to provide  
11 the subcommittee and the full Board with an  
12 opportunity to take and look at other ways that  
13 these two materials might currently be used in  
14 handling compared to how they were originally  
15 petitioned.

16 Both materials were originally  
17 petitioned for use in meat processing as pathogen  
18 inhibitor that is used to help control Listeria in  
19 ready-to-eat meat and poultry products.

20 Both materials have been allowed for  
21 use in organic handling since January 22, 2004,  
22 when they were petitioned at that time.

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1           They were originally allowed for use  
2           and that petition was sent back to the petitioner  
3           with no action required by the NOP based on the fact  
4           that at that time the belief was that at that time  
5           the three materials used to formulate either  
6           material were actually on the National List. And  
7           those materials were sodium hydroxide, potassium  
8           hydroxide, and lactic acid.

9           That decision as outlined in our  
10          proposal caused considerable confusion with the  
11          certifiers and with the handlers themselves, and  
12          that's why we're here again today, to discuss  
13          whether or not we should add these materials to the  
14          National List at 205.605(b) Synthetics Allowed.

15          Some of the additional uses in organic  
16          handling included but not limited to are used in  
17          organic meat flavoring such as chicken flavor, beef  
18          flavor, use in organic processed meats, sausages,  
19          meatballs, other similar types of production, and  
20          also by an internationally certified organic  
21          handler in the manufacturing of their organic herb  
22          and spice paste both to provide an antimicrobial

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1 control, but also as a pH regulator.

2 According to the February 17, 2015, TR  
3 it does not appear that either material have any  
4 human health concerns associated with them.

5 The same report does note that both  
6 materials are considered GRAS by the FDA.

7 The same report also states that there  
8 are no additional ingredients or ancillary  
9 substances, stabilizers, preservatives, carriers,  
10 anti-caking agents, et cetera, added to  
11 commercially available forms of either of these two  
12 materials when used in organic handling and  
13 processing.

14 While the original petition's use was  
15 intended for use in the meat processing as a  
16 pathogen inhibitor in the ready-to-eat meat and  
17 poultry, since then and as we've looked and  
18 discovered this material has been allowed for other  
19 uses by organic stakeholders, by their certifiers  
20 as we've identified via the public comment process,  
21 some of these uses under the scope of this petition  
22 material review.

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1           Our findings show that sodium lactate  
2           and potassium lactate along with the original  
3           intended uses are also used in herbs, spice  
4           industry as I previously mentioned.

5           There have not been any environmental  
6           health -- human or animal health concerns that have  
7           been raised during this petition re-review  
8           process.

9           We have received considerable written  
10          and oral comments both last fall and then again this  
11          spring.

12          Several comments on this material at  
13          the fall meeting and the webinar. We got roughly  
14          20 written comments back this round, 1 oral comment  
15          via the webinar. Plus additionally we got six  
16          during the in-person time, four in support of, two  
17          opposed to.

18          Those opposing the listing are a couple  
19          of public interest groups. There are a couple of  
20          individual commenters stated that it was not  
21          essential, that alternatives do exist, primarily  
22          used as a preservative and therefore should not be

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1 allowed.

2 One commenter raised a concern about  
3 the feedstock source that is fermented to make the  
4 lactate that might be made from conventional GMO  
5 sources.

6 Those supporting the listing stated  
7 that the high-pressure processing could be a  
8 possible alternative, but the technology is  
9 extremely expensive and therefore something that  
10 would not be available to all handlers to use at  
11 their expense because the cost would be  
12 prohibitive.

13 They are, especially the sodium  
14 lactate, the antimicrobial of choice in organic  
15 foods, especially in the meats, the herbs and the  
16 spices.

17 Sodium lactate is permitted in the EU  
18 in milk-based and meat products. Lactic acid is  
19 not a suitable alternative where the pH must be  
20 raised.

21 Alternatives damage natural flavor,  
22 color and aroma -- this is referring to the spices

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1 and the herbs -- and also numerous organic herb and  
2 spice growers commented on that.

3 Alternatives listed either are not  
4 effective under specific conditions such as lactic  
5 acid or have negative impact on the flavor or taste  
6 such as the impact caused by the fruit powders and  
7 those of the essential oils.

8 One commenter raised a concern that  
9 discussion around these two materials fails to  
10 address the other salt of lactic acid material,  
11 calcium lactate.

12 In discussion with the program we  
13 determined that the TR specifically addressed  
14 lactic acid, sodium and potassium lactate. Thus,  
15 calcium lactate falls outside of the scope of this  
16 review at this time as well as the petition, the  
17 original petition was to list both sodium and  
18 potassium lactate and did not include calcium  
19 lactate within it.

20 So, I would state right now at this  
21 point that if somebody has some concerns with  
22 calcium lactate in that it's fallen outside of the

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1 review that we're currently undertaking that we  
2 probably might want to see something done on that,  
3 maybe a petition for us to review that possibly.

4 It would appear based off of the earlier  
5 discussions and decisions that there are organic  
6 handlers, and we know via public comment, that are  
7 currently using these materials, especially the  
8 sodium lactate.

9 This time via public comment we did not  
10 receive any specific comments back in favor of  
11 using or in support of continuing to use potassium  
12 lactate.

13 We did receive two specific comments  
14 back last fall, however. And so I want to take and  
15 use those as a continuation that we do have comments  
16 that were in support of potassium.

17 Typically what we have seen is those  
18 that are commenting either in support of or  
19 commenting against have lumped the two lactic,  
20 potassium and sodium together. So, they're looked  
21 at as similar, as the same.

22 The preference from the handlers are if

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1 they're using a sodium-based or something --  
2 they're using the sodium lactate, if they're using  
3 a low sodium process then they're opting to use the  
4 potassium lactate as a lower non-sodium  
5 formulation in their processing.

6 With that I will open it up for  
7 discussions from the Board. Jean?

8 MEMBER RICHARDSON: In my experience  
9 going around doing slaughterhouse inspections as  
10 an inspector because it's allowed under organic  
11 standards right now I find that -- or at least the  
12 sodium particularly is -- sodium lactate is used  
13 in order to inhibit the growth of Listeria, E. coli,  
14 Salmonella. And it's sprayed on the carcasses as  
15 they're hanging there in the cooler following  
16 slaughter.

17 Are you aware of any alternatives that  
18 could be used if we didn't continue to list this?

19 MEMBER AUSTIN: We had one comment last  
20 fall that said that in their particular operation  
21 for that specific use they did not have an  
22 alternative that they found that was suitable for

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1 their specific operation. And I cannot remember  
2 who that commenter was, Jean.

3 Harriet?

4 MEMBER BEHAR: My understanding it is  
5 direct lactic acid, not the sodium lactate that is  
6 used to be sprayed on the carcasses. And that the  
7 sodium lactate is used in the final product as a  
8 pH and somewhat of a preservative.

9 So, are you sure you're seeing them  
10 spray sodium lactate, or just lactic acid?

11 MEMBER RICHARDSON: Both.

12 MEMBER AUSTIN: Yes, there was a  
13 specific comment last fall to that specific use for  
14 it. But I don't think that is the primary use for  
15 it. Emily.

16 MEMBER OAKLEY: So Harriet, is lactic  
17 acid sufficient on its own without the sodium  
18 lactate?

19 MEMBER RICHARDSON: I don't have a  
20 scientific answer for that, but I'll certainly look  
21 into it as we go into the next round of discussing  
22 it.

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1 MEMBER AUSTIN: Harriet, go ahead.

2 MEMBER BEHAR: My understanding is  
3 that FSIS does have lactic acid listed as one of  
4 the mitigation tools that can be used to prevent  
5 E. coli and other pathogen problems on raw meat.

6 So there's hot water, there's lactic  
7 acid, and there's a few others. But lactic acid  
8 is seen as approved and effective.

9 MEMBER AUSTIN: I think it depends on  
10 the listing and how the handler in the operation  
11 is using it for that specific use, particular use  
12 possibly.

13 But I know in the case of the herb and  
14 the spice producers lactic acid has been looked at  
15 and that is not an option that they can use  
16 sufficiently and effectively in their operation.  
17 Provided in the comments and the testimony that  
18 they provided with us yesterday.

19 Emily, follow-up?

20 MEMBER OAKLEY: Yes, I appreciate that  
21 for them they've tried other materials and haven't  
22 found anything.

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1           My main reservation is that as was  
2           stated in the proposal that meat products that  
3           contain sodium or potassium lactate can no longer  
4           be labeled as natural without a case-by-case basis  
5           assessment.

6           And it seems a little bit challenging  
7           to consider this for organic production if it's  
8           questionable in natural production.

9           Can you talk to that?

10           MEMBER AUSTIN:     I think in that  
11           particular concern in that listing that was raised  
12           on that particular statement that you just read,  
13           those materials, those products have to be looked  
14           at for the specific use on an as-use basis.

15           Because there's so many different ways  
16           that sodium and potassium lactate can be looked at  
17           as far as their uses, their intended uses and the  
18           properties that it's a case-by-case scenario that  
19           they will look at that to determine how  
20           specifically in that formulation that material is  
21           being used and looked at on a case-by-case basis  
22           is what that said.

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1 Jean, then Tom.

2 MEMBER RICHARDSON: In your research  
3 as you were putting this together, because I don't  
4 remember it coming much on our discussions on the  
5 subcommittee, did you find any specific scientific  
6 references to any human health impacts? I know  
7 it's GRAS, but apart from that was there any  
8 indication that there were negative human health  
9 impacts?

10 MEMBER AUSTIN: Jean, no. There was  
11 nothing new that was significantly brought  
12 forward.

13 The one concern was in the formation of  
14 lactic acid, the sheer amount of gypsum that was  
15 produced. There was significant references to  
16 solutions to utilizing that, moving it back into  
17 other uses, back into soil amendments.

18 And that was well documented in that TR.  
19 Tom?

20 VICE CHAIR CHAPMAN: So, the spray use  
21 on carcasses is one, but it's also used in meat  
22 products itself. And it's used oftentimes to

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1 replace sodium nitrate which is not allowed in  
2 organic production here. It is allowed in Europe  
3 for meat products for organic production.

4 So I think that's a big difference to  
5 note here, that this is a less objectionable  
6 substance that we're using in place of a more  
7 objectionable substance for safety and for certain  
8 types of meat products that require this type of  
9 additive.

10 Now, when it comes to the objections of  
11 synthetic preservatives 205.600 speaks to that,  
12 but it's only applicable to processing aids and  
13 adjuvants. Would this be classified as a  
14 processing aid or an adjuvant?

15 MEMBER AUSTIN: No.

16 VICE CHAIR CHAPMAN: No. So then  
17 that's not applicable to this -- that criteria is  
18 not applicable to this substance.

19 MEMBER AUSTIN: Correct. Harriet,  
20 Francis, Jean.

21 MEMBER BEHAR: This is a tough  
22 substance for me and so I went on the internet and

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1 looked around. And it is perceived as a  
2 preservative in the greater world. It is listed  
3 as a food preservative on many websites and the  
4 manufacturers sell it as a food preservative.  
5 Many of them label it as a natural preservative  
6 because it is better than potassium sorbate, or  
7 sorbic acid, or sodium nitrate. So those are the  
8 things that I saw.

9 And I also saw that typically it's used  
10 between 2 and 3 percent in the product. So that's  
11 a significant percentage that's used in the  
12 product.

13 I also was concerned about the natural  
14 label. And just when Lisa was talking about when  
15 she's bringing products to her store that she might  
16 be looking at what does that label look like.

17 And so I would feel terrible to see  
18 buyers looking at products and saying, well, this  
19 natural product, non-organic product doesn't  
20 contain sodium lactate, a preservative, right?  
21 They're looking on a website.

22 And see an organic product and say,

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1 well, this has a preservative and that's not the  
2 one I'm going to bring into my store and have on  
3 my shelves.

4 So, I'm concerned somewhat about the  
5 clean label. And I'm not sure if an annotation we  
6 can somewhat work on it not being at the level of  
7 a preservative. And so that's where my concerns  
8 lie.

9 And I know that -- I did talk to Organic  
10 Valley and they are using high-pressure  
11 pasteurization to avoid the use of this product,  
12 although they say that they might like to have it  
13 in their back pocket for some future product. They  
14 don't know.

15 MEMBER AUSTIN: Francis.

16 MEMBER THICKE: I just want to remind  
17 us that we do have nitrate available through celery  
18 from last fall.

19 MEMBER AUSTIN: Thank you. Jean?

20 MEMBER RICHARDSON: Actually, my  
21 comments were somewhat similar to Harriet's.

22 But I would like to point out that we

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1 do have the annotation for use as an antimicrobial  
2 agent in the pH regulator only. So it's a  
3 challenge.

4 Because I know the perception is that  
5 it functions as a preservative, but did you see much  
6 of that when you were doing your research as the  
7 lead person into this material?

8 MEMBER AUSTIN: As far as, Jean?

9 MEMBER RICHARDSON: As far as it being  
10 used as a preservative as opposed to antimicrobial.

11 MEMBER AUSTIN: No, I don't think the  
12 intent of this material's usage by the handlers  
13 that are currently using it is as a preservative.  
14 It's really, truly as a pH adjuster or as an  
15 antimicrobial.

16 Tom, Francis, Emily.

17 VICE CHAIR CHAPMAN: I wanted to talk  
18 to the natural comment and organics. It's a  
19 complex subject.

20 This is regulated. It's a meat product  
21 so it's under USDA which does have a "natural"  
22 definition.

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1           But on the processed food side it's  
2           pertinent while there isn't a definition for  
3           "natural" and it's kind of being litigated in the  
4           courts to de facto define "natural" the FDA says,  
5           "The Agency has not objected to the use of the term  
6           "natural" if the food does not contain an added  
7           color, artificial flavors, or synthetic  
8           substances."

9           There is a large list of synthetic  
10          substances, or I wouldn't say large, but a list of  
11          synthetic substances in handling products that's  
12          allowed on the list.

13          So you already have on the handling side  
14          a case where you could have an organic product that  
15          could not be labeled natural.

16                 MEMBER AUSTIN: Thank you, Tom. I'm  
17                 going to go with A-dae right now.

18                 MEMBER ROMERO-BRIONES: So, Harriet,  
19                 is high-pressure pasteurization available to  
20                 larger producers, small producers, do you know?  
21                 As a suitable alternative.

22                 MEMBER BEHAR: I don't know the answer

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1 to that question, but I know that we are a  
2 process-based standard.

3 And I know that we did eventually get  
4 a lot of the boiler chemicals off the National List  
5 because over time we were able to approach the  
6 problems that the boiler chemicals were addressing  
7 through more of a process-based approach.

8 And so I don't know the answer to that  
9 question. But again, this is a process rather than  
10 an input that would deal with the pathogen issue.

11 And then also too, it only affects  
12 bacteria, not yeasts or molds. So it's not a full  
13 category antimicrobial.

14 MEMBER AUSTIN: A-dae, to answer part  
15 of your question, one of the comments back to us  
16 stated that the high-pressure processing could be  
17 a possible alternative, and it is currently being  
18 used, but that technology is extremely expensive  
19 and would be out of the limits of certain handlers  
20 and processors to be able to afford it.

21 MEMBER DE LIMA: So, since someone  
22 brought up clean labels and how that label is going

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1 to look, from my perspective the organic meat  
2 market is so small. I mean, it's been hard. It's  
3 gotten over easier over the years as production has  
4 ramped up. But it's really hard to fill a meat  
5 case, even just like a 12- or 16-foot meat case with  
6 only organic meat. I mean, it's impossible, at  
7 least where we are geographically on the east coast  
8 for our stores.

9 So, I'm comfortable with it as long as  
10 it has this annotation as it's written with the for  
11 use as antimicrobial agent and pH regulator only.  
12 Like, that's something I can say to a customer.  
13 Like, I can tell them this isn't used as a  
14 preservative. This is used for antimicrobial.

15 And I'd rather have that conversation  
16 and still have certified organic options on the  
17 shelf than taking it out and potentially putting  
18 products at a disadvantage, and then having more  
19 natural on the shelf versus organic.

20 MEMBER AUSTIN: Okay, a couple of more  
21 questions. Francis, Emily, and then Zea. And  
22 then we're going to probably try to wrap it up.

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1                   MEMBER THICKE:    I'm having trouble  
2 with this distinction between an antimicrobial and  
3 a preservative because what causes something to  
4 decay are microbes.

5                   And so if we have an antimicrobial we  
6 have in essence I think a preservative.

7                   MEMBER AUSTIN:   Yes, I was hoping that  
8 Emily could take and share me some words of wisdom  
9 over here.

10                  I think, Francis, that that is  
11 something that we all struggle with the definition  
12 between that. And maybe that's something that we  
13 might need to throw out to the Board that we need  
14 to look at as future agenda material.

15                  Tom's going to give us some clarity  
16 though.

17                  VICE CHAIR CHAPMAN: Well no, I just  
18 wanted to point out another antimicrobial  
19 preservative is salt.

20                  While the regulation itself prevents --  
21 you know, it's kind of exempt from the whole  
22 process. It's a wide category. It's a difficult

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1 piece to come to terms with.

2 MEMBER AUSTIN: It is. And I don't  
3 know if within the scope of our Board that's  
4 something that we want to try to look at to the  
5 future and try to find more of a defined definition  
6 of what those represent. Go ahead.

7 MEMBER THICKE: I guess if you think  
8 about it, what causes something to decay? It's  
9 microbes. And so if you're preserving something  
10 you're preventing microbes from causing it to  
11 decay, really.

12 Unless you have light decomposition or  
13 thermal decomposition what else would it be but  
14 microbial decomposition?

15 MEMBER AUSTIN: I think the intended  
16 use here though is not for -- to provide  
17 long-lasting preservative effects to the end  
18 product. But it's -- they were very specific that  
19 they were trying to deal with Listeria and E. coli.  
20 And I think it was more from a human health  
21 perspective than it was as a preservative type of  
22 an approach to this. So, I think that's the

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1 clarity for this debate right now on these two  
2 materials. Tom?

3 VICE CHAIR CHAPMAN: Microbiological  
4 decay is one issue. But you know, moisture,  
5 moisture migration, dryness. There's a bunch of  
6 other preservation actions that preservatives take  
7 in products.

8 But this -- antimicrobial is one of  
9 them, yes. But it's -- preservatives is  
10 definitely a wider term than just antimicrobial.

11 MEMBER THICKE: But if you take out the  
12 moisture you're preventing microbes from growing.  
13 And so you're basically making an environment  
14 unfavorable to microbial growth.

15 VICE CHAIR CHAPMAN: I believe there's  
16 some preservatives that retain moisture to keep a  
17 product moist over its shelf life so it's a  
18 palatable product, like in breads and things like  
19 that.

20 MEMBER THICKE: But they prevent the  
21 microbes from colonizing I think. Anyway.

22 MEMBER AUSTIN: Emily, Scott.

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1                   MEMBER OAKLEY: So, to Harriet's point  
2 about the two to three person use within a product  
3 overall, is there an application rate or a  
4 percentage that decreases the use as a preservative  
5 and makes it more aligned with -- this is maybe way  
6 too technical for this conversation, but just the  
7 pH regulator and microbial effects, and not giving  
8 you so much the flavor enhancement of a  
9 preservative?

10                   VICE CHAIR CHAPMAN: I do want to note  
11 the TR says it's actually a 1 to 4.8 percent usage  
12 rate according to that. So it's larger than what  
13 we've been tossing around.

14                   MEMBER AUSTIN: And those rates are  
15 following the FDA standards. So it's outside of  
16 the scope of our control on that part of it. Scott.

17                   MEMBER RICE: I just, from a  
18 certification perspective and seeing a lot of food  
19 safety regulations coming at our clients and the  
20 folks that we work with, seeing this as kind of a  
21 tool in the tool box whose primary function is one  
22 of food safety and not of preservation in my mind

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1 I see it as a valuable tool. I support it.

2 MEMBER AUSTIN: Thank you. Zea, then  
3 Harriet, and then we'll try to wrap this up if we  
4 can so we can try to keep a little bit on schedule.

5 MEMBER SONNABEND: This is just a bit  
6 of a historical perspective. This is a true  
7 example of the NOP at the time usurping the  
8 authority of the NOSB when they just issued a ruling  
9 by letter that the combination of two things on the  
10 National List was acceptable.

11 However, so I'm really glad that we're  
12 actually having a chance to properly review it.  
13 However, it has created the precedent that these  
14 things are being used. And so in some senses this  
15 has the aspects of a sunset review as well as just  
16 a brand new thing coming on the list.

17 But I am compelled by Scott's  
18 statements about food safety and Lisa's about  
19 enabling enough tools so that we can see organic  
20 meat in the marketplace so that I am okay with  
21 voting for this according to the due process.

22 MEMBER AUSTIN: And I think this is a

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1 really good example of why the National List  
2 actually exists today. Harriet, final.

3 MEMBER BEHAR: So, there's a few things  
4 too then.

5 I know that body care products are not  
6 under our scope, but it is used widely in body care  
7 products as well. And there are people out there  
8 labeling things organic.

9 Also too that our sunset system now is  
10 that once it's on it's going to be harder to take  
11 off.

12 And then lastly, I'm going to ask Emily  
13 if it's possible if a manufacturer wants to put in  
14 parentheses after sodium lactate on their label can  
15 they use that extra modifier that says "as an  
16 antimicrobial agent" or something like that just  
17 to provide the consumer with a little more  
18 information and help that label look a little bit  
19 more food safety friendly.

20 I know that there's some things that the  
21 manufacturer can say on the label and some things  
22 that they cannot. So I'm curious if that would be

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1 allowed after sodium lactate.

2 MS. BROWN ROSEN: I'd have to check the  
3 FDA labeling regulations on that. That would be  
4 under their control. They may or may not approve  
5 of that. But I can get back to you on that. Maybe  
6 someone in the audience knows.

7 MEMBER AUSTIN: I would just like to  
8 make a comment to one of the comments that you made  
9 though, Harriet, about referencing the fact that  
10 with this current changes to sunset that materials  
11 are going to be harder to get off of the Board.

12 Actually, I think if you look at the  
13 tenure of those of us that will be sunseting off  
14 of the Board in this coming January we've actually  
15 physically removed more materials since the change  
16 to sunset than we did prior to the change of sunset.

17 The process of sunset is to allow the  
18 materials to go under review, and when it's time  
19 and there's an adequate replacement or alternative  
20 then they'll come off.

21 But we've removed a lot under this  
22 current sunset regime. We really have. So, just

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1 for some clarity.

2 Any further debate on this material?  
3 And I would remind everybody that this does come  
4 before us as a full motion with a second.

5 We're going to move into the  
6 classification motion at this point to move -- and  
7 it comes from the subcommittee as a classification  
8 motion to classify both sodium lactate and  
9 potassium lactate as a synthetic.

10 The motion was made by myself and  
11 seconded by Ashley. Is there any further  
12 discussion or debate?

13 Tracy, I'll turn it over to you.

14 CHAIR FAVRE: Okay, we're going to  
15 start the voting with Francis.

16 MEMBER THICKE: Yes.

17 MEMBER AUSTIN: Yes.

18 MEMBER BUIE: Yes.

19 MEMBER BECK: Yes.

20 MEMBER SWAFFAR: Yes.

21 MEMBER ROMERO-BRIONES: Yes.

22 MEMBER DE LIMA: Yes.

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1 VICE CHAIR CHAPMAN: Yes.

2 MEMBER SEITZ: Yes.

3 MEMBER RICHARDSON: Yes.

4 MEMBER BEHAR: Yes.

5 MEMBER SONNABEND: Yes.

6 MEMBER RICE: Yes.

7 MEMBER OAKLEY: Yes.

8 CHAIR FAVRE: The chair votes yes.

9 MEMBER DE LIMA: Fifteen yes, zero no.

10 The motion passes.

11 MEMBER AUSTIN: Now, for the listing  
12 motion. We'll move it forward as presented.

13 Okay, so the listing motion will be to  
14 list sodium lactate and potassium lactate at  
15 205.605(b) of the National List with the following  
16 annotations: for use as an antimicrobial agent and  
17 pH regulator only.

18 That motion was moved by myself,  
19 seconded by Tom.

20 CHAIR FAVRE: Start the vote with  
21 Harold this time.

22 MEMBER AUSTIN: Yes.

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1 MEMBER BUIE: Yes.

2 MEMBER BECK: Yes.

3 MEMBER SWAFFAR: Yes.

4 MEMBER ROMERO-BRIONES: Yes.

5 MEMBER DE LIMA: Yes.

6 VICE CHAIR CHAPMAN: Yes.

7 MEMBER SEITZ: Yes.

8 MEMBER RICHARDSON: Yes.

9 MEMBER BEHAR: Abstain.

10 MEMBER SONNABEND: Yes.

11 MEMBER RICE: Yes.

12 MEMBER OAKLEY: Abstain.

13 MEMBER THICKE: No.

14 CHAIR FAVRE: The chair votes yes.

15 MEMBER DE LIMA: Two abstain, one no,

16 and 12 yes. The motion passes.

17 MEMBER AUSTIN: Thank you for a hearty

18 debate and discussion on the last two materials.

19 We'll move onto our next proposed

20 material which is oat beta-glucan. Dr. Brines

21 first.

22 DR. BRINES: Thank you. This

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1 substance was petitioned by Tate & Lyle on March  
2 30, 2015. It requests the addition of oat  
3 beta-glucan to Section 205.606 of the National  
4 List.

5 The petition was also updated  
6 subsequent to its initial submission and those  
7 petition addenda are also on the National Organic  
8 Program website.

9 No technical report was requested by  
10 the subcommittee to assist in its review and this  
11 is the first NOSB meeting where the petition  
12 material is under consideration. Thank you.

13 MEMBER AUSTIN: Thank you. Lisa.

14 MEMBER DE LIMA: So, oat beta-glucan is  
15 being petitioned by the manufacturer Tate & Lyle  
16 as a natural component of oats.

17 According to the petition the substance  
18 is isolated through a simple process of grinding,  
19 enzyme treatment, water extraction and drying. No  
20 synthetic chemical additions or solvents are used  
21 in the manufacturing process being petitioned.

22 The only additives used in producing it

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1 are water and the enzymes.

2 Its benefit as put forward in the  
3 petition is that it's used to supplement the fiber  
4 content in processed foods including cakes,  
5 breads, cereals, bars, soups and smoothies.

6 Other names for oat beta-glucan include  
7 oat bran, soluble fiber, oat fiber and oat bran  
8 fiber.

9 Overall oat beta-glucan appears to have  
10 no significant negative impacts on human health.

11 The petition pointed out that oat  
12 beta-glucan is used in handling and not crop  
13 production and thereby concluded that it had no  
14 effect on soil, crops, or livestock.

15 But the Handling Subcommittee would  
16 like to point out that according to the USDA  
17 Pesticide Data Program there are seven pesticide  
18 residues found on conventionally grown oats.

19 The petition goes on to point out  
20 there's currently no source of organic oat  
21 beta-glucan despite organic oats and organic oat  
22 bran being widely available in the U.S. and Canada.

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1           The petition goes on to state that in  
2 Nordic countries where a large amount of oat  
3 beta-glucan is currently manufactured, that's  
4 non-organic oat beta-glucan, that organic and oats  
5 and organic oat bran quantities are limited.

6           Basically the subcommittee came to the  
7 decision, we didn't think there was any reason why  
8 oat beta-glucan could not be manufactured  
9 organically. And actually in the past there was  
10 one manufacturer that used to produce an oat  
11 beta-glucan and stopped doing so due to low demand.

12           So we found that the substance failed  
13 as far as essentiality and availability.

14           MEMBER AUSTIN:     Thank you.     Any  
15 questions from the Board?   Tom.

16           VICE CHAIR CHAPMAN:   I found the  
17 statement in the petition about a low availability  
18 of organic oats in Nordic countries peculiar in the  
19 fact that U.S. is currently importing organic oats  
20 from Nordic countries.

21           So, clearly available for export.   I  
22 would think it would be clearly available to make

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1 into a fiber product.

2 It seems like it's a demand issue in the  
3 marketplace. And companies deal with that all the  
4 time launching an organic product that may or may  
5 not have demand. So I don't see a reason to make  
6 an exception in this case for these guys either.  
7 So I oppose this.

8 MEMBER AUSTIN: Francis.

9 MEMBER THICKE: There's plenty of  
10 organic oats in the Midwest and we could grow a lot  
11 more.

12 VICE CHAIR CHAPMAN: Please do so.

13 MEMBER AUSTIN: Any further questions  
14 or discussion? Seeing none I present this to the  
15 Board for vote and discussion.

16 This does come from the subcommittee as  
17 a motion with a second. The motion to classify oat  
18 beta-glucan as agricultural. The motion was made  
19 by Lisa, seconded by Ashley. Tracy, I'll turn it  
20 over to you.

21 CHAIR FAVRE: Okay, we're going to  
22 start the voting with Jesse.

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1 MEMBER BUIE: Yes.

2 MEMBER BECK: Yes.

3 MEMBER SWAFFAR: Yes.

4 MEMBER ROMERO-BRIONES: Yes.

5 MEMBER DE LIMA: Yes.

6 VICE CHAIR CHAPMAN: Yes.

7 MEMBER SEITZ: Yes.

8 MEMBER RICHARDSON: Yes.

9 MEMBER BEHAR: Yes.

10 MEMBER SONNABEND: Yes.

11 MEMBER RICE: Yes.

12 MEMBER OAKLEY: Yes.

13 MEMBER THICKE: Yes.

14 MEMBER AUSTIN: Yes, ma'am.

15 CHAIR FAVRE: The ghost of Mac has  
16 entered the room. The chair votes yes.

17 MEMBER DE LIMA: It's 15 yes, zero no.  
18 The motion passes.

19 MEMBER AUSTIN: Listing motion, to  
20 move and list oat beta-glucan at 205.606 of the  
21 National List.

22 This motion was made by Lisa, seconded

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1 by Jean.

2 CHAIR FAVRE: Okay, we'll start the  
3 voting with Carmela.

4 MEMBER BECK: No.

5 MEMBER SWAFFAR: No.

6 MEMBER ROMERO-BRIONES: No.

7 MEMBER DE LIMA: No.

8 VICE CHAIR CHAPMAN: No.

9 MEMBER SEITZ: No.

10 MEMBER RICHARDSON: No.

11 MEMBER BEHAR: No.

12 MEMBER SONNABEND: No.

13 MEMBER RICE: No.

14 MEMBER OAKLEY: No.

15 MEMBER THICKE: No.

16 MEMBER AUSTIN: No.

17 MEMBER BUIE: No.

18 CHAIR FAVRE: The chair votes no.

19 MEMBER DE LIMA: Zero yes, 15 no. The  
20 motion fails.

21 MEMBER AUSTIN: Thank you. Moving  
22 onto our next proposed petitioned material,

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1 hypochlorous acid. I'll turn it over to Dr.  
2 Brines.

3 DR. BRINES: Thank you. As mentioned  
4 yesterday this material was petitioned on May 29,  
5 2015 by Botanical Food Company and requests the  
6 addition of hypochlorous acid to Section 205.601  
7 of the National List as well as 205.605.

8 It was also added to the agenda of the  
9 Livestock Subcommittee at the request of the  
10 National Organic Program.

11 In support of the review a technical  
12 evaluation report was commissioned and completed  
13 in 2015 which addresses all uses.

14 This is the first meeting at which the  
15 subcommittee is considering the petition. Thank  
16 you.

17 MEMBER AUSTIN: Thank you. Ashley?

18 MEMBER SWAFFAR: So, we did have the  
19 petition to list hypochlorous acid across all three  
20 scopes - livestock, handling and crops.

21 Francis did a great job yesterday in  
22 livestock reviewing the process of production of

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1 hypochlorous acid so I won't dive into that again.

2           There were comments in support of the  
3 addition of hypochlorous acid including those who  
4 said it was easy for us to use, it's more friendly  
5 to the environment, it was a highly effective  
6 sanitizer and it's essential to my business.

7           There was concern raised about the  
8 language in the motion and which we'll correct with  
9 an amendment.

10           And there was other concern that we  
11 should evaluate all sanitizers as a grouping. And  
12 I do believe we will be looking into that.

13           MEMBER AUSTIN: Thank you. Do we have  
14 any questions, discussion from the Board or the  
15 subcommittee? Tom.

16           VICE CHAIR CHAPMAN: I think this is  
17 fairly similar to the discussion we already had  
18 with livestock. I do intend to make a motion to  
19 amend after the classification.

20           MEMBER AUSTIN: Okay, thank you. Any  
21 other discussion?

22           Okay, so this comes before the Board as

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1 a motion from the subcommittee with a second. The  
2 classification motion. We move to classify  
3 hypochlorous acid as synthetic. That motion was  
4 made by Ashley and seconded by Jean. Tracy?

5 CHAIR FAVRE: Okay, we're going to  
6 start the voting with Ashley.

7 MEMBER SWAFFAR: Yes.

8 MEMBER ROMERO-BRIONES: Yes.

9 MEMBER DE LIMA: Yes.

10 VICE CHAIR CHAPMAN: Yes.

11 MEMBER SEITZ: Yes.

12 MEMBER RICHARDSON: Yes.

13 MEMBER BEHAR: Yes.

14 MEMBER SONNABEND: Yes.

15 MEMBER RICE: Yes.

16 MEMBER OAKLEY: Yes.

17 MEMBER THICKE: Yes.

18 MEMBER AUSTIN: Yes.

19 MEMBER BUIE: Yes.

20 MEMBER BECK: Yes.

21 CHAIR FAVRE: The chair votes yes.

22 MEMBER DE LIMA: Fifteen yes, zero no.

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1 The motion passes.

2 MEMBER AUSTIN: Listing motion. Tom.

3 VICE CHAIR CHAPMAN: So, it's  
4 preferable to have a listing in a motion that's the  
5 same across all the subcommittees.

6 And to be explicit the petition  
7 subcommittee review and technical review were all  
8 for hypochlorous acid generated via electrolyzed  
9 water.

10 Therefore I move to amend the petition  
11 to read "hypochlorous acid generated via  
12 electrolyzed water as petitioned."

13 MEMBER BEHAR: I'll second.

14 MEMBER AUSTIN: We have a motion to  
15 amend with a second. Is there any further  
16 discussion?

17 Hearing none we'll proceed to vote.  
18 Tracy?

19 CHAIR FAVRE: Okay, we'll start the  
20 vote with A-dae.

21 MEMBER ROMERO-BRIONES: Yes.

22 MEMBER DE LIMA: Yes.

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1 VICE CHAIR CHAPMAN: Yes.

2 MEMBER SEITZ: Yes.

3 MEMBER RICHARDSON: Yes.

4 MEMBER BEHAR: Yes.

5 MEMBER SONNABEND: Yes.

6 MEMBER RICE: Yes.

7 MEMBER OAKLEY: Yes.

8 MEMBER THICKE: Yes.

9 MEMBER AUSTIN: Yes.

10 MEMBER BUIE: Yes.

11 MEMBER BECK: Yes.

12 MEMBER SWAFFAR: Yes.

13 CHAIR FAVRE: The chair votes yes.

14 MEMBER DE LIMA: Fifteen yes, zero no.

15 The motion passes.

16 CHAIR FAVRE: Okay, just as a reminder  
17 we had had an amendment to the motion. Now we have  
18 to vote on the motion.

19 MEMBER AUSTIN: So now we'll have the  
20 vote on the motion as amended to list hypochlorous  
21 acid. Tom, do you want to go ahead and read your  
22 amendment to the motion? Or do we just vote on the

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1 motion now?

2 VICE CHAIR CHAPMAN: You just vote on  
3 the main motion. Do you want me to read it? I can  
4 read it.

5 MEMBER AUSTIN: Go ahead, since you  
6 made the amendment to it.

7 VICE CHAIR CHAPMAN: So it's a move to  
8 list hypochlorous acid generated via electrolyzed  
9 water as petitioned at 205.605(b) Chlorine  
10 Materials.

11 CHAIR FAVRE: Okay, we've had a motion.  
12 We are going to start with Lisa on the vote.

13 MEMBER DE LIMA: Yes.

14 VICE CHAIR CHAPMAN: Yes.

15 MEMBER SEITZ: Yes.

16 MEMBER RICHARDSON: Yes.

17 MEMBER BEHAR: Yes.

18 MEMBER SONNABEND: Yes.

19 MEMBER RICE: Yes.

20 MEMBER OAKLEY: Yes.

21 MEMBER THICKE: Yes.

22 MEMBER AUSTIN: Yes.

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1 MEMBER BUIE: Yes.

2 MEMBER BECK: Yes.

3 MEMBER SWAFFAR: Yes.

4 MEMBER ROMERO-BRIONES: Yes.

5 CHAIR FAVRE: The chair votes yes.

6 MEMBER DE LIMA: Fifteen yes, zero no.

7 The motion passes.

8 MEMBER AUSTIN: Thank you. Okay,  
9 we'll move onto our next petition material and this  
10 will deal with sodium dodecylbenzene sulfonate.  
11 I'm the lead on that one.

12 DR. BRINES: Harold, would you like me  
13 to introduce it before you jump in? Would you like  
14 me to introduce the petitioned substance first?

15 MEMBER AUSTIN: Would you please?

16 DR. BRINES: Thank you. All right.  
17 The substance was petitioned by Ecolab  
18 Incorporated on October 13, 2015.

19 The petition requests the addition of  
20 sodium dodecylbenzene sulfonate to Section 205.605  
21 of the National List as an antimicrobial.

22 There was no technical evaluation

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1 report requested or developed for this petitioned  
2 substance and this is the first meeting at which  
3 it's being discussed by the NOSB. Thank you.

4 MEMBER AUSTIN: Thank you. Okay, so  
5 we have before us a petition and a proposal coming  
6 out of the subcommittee to list sodium  
7 dodecylbenzene sulfonate, from now on SDBS.

8 This was a petition we received from  
9 Ecolab to add this material to the National List  
10 at 205.605(b) for use as one of two active  
11 ingredients, the other being lactic acid in their  
12 formulated product antimicrobial fruit and  
13 vegetable treatment AFVT as an antimicrobial.

14 This would be used in treating raw and  
15 ready to eat fruits and vegetables in the premises  
16 of organic retail establishments such as  
17 restaurants, cafeterias, food service operations,  
18 kitchens, et cetera.

19 The petitioners do not formulate the  
20 product, but purchase it from one of three  
21 manufacturing sources as listed in the proposal.

22 The final product would be used in a

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1 wash water application on raw fruits and vegetables  
2 or on work surfaces used to prepare these raw fruit  
3 and ready to eat fruits and vegetables.

4 This material is currently widely used  
5 in detergents, cleaners, sanitizer products and  
6 other numerous industrial type products.

7 The petitioner says that this material  
8 would provide organic handlers with a new reliable  
9 tool to aid in the battle against microorganisms  
10 that cause foodborne illnesses and outbreaks such  
11 as E. coli, Listeria and Salmonella.

12 There are several ways to make this  
13 material. The primary source is to start with  
14 linear alkylbenzene sulfonate which is made by  
15 sulfonation of alkylbenzenes prepared from  
16 petroleum distillates.

17 These processes have been quite  
18 substantially refined in modern, recent times.

19 According to the information provided  
20 the sulfonation technology has been considerably  
21 improved and with the most modern systems currently  
22 beginning to use falling film reactors, or

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1 mono-tube and multi-tube as part of the sulfonation  
2 process, primarily in Europe.

3 So they're looking to add this as a  
4 processing aid in their antimicrobial material.

5 Part of the discussion I want to have  
6 is with the implementation of the Food Safety  
7 Modernization Act this material could possibly be  
8 a useful addition to the National List.

9 There does not appear to be any serious  
10 human health or environmental concerns under the  
11 proposed use pattern according to the EPA 206  
12 registration eligibility document, or RED.

13 One area of concern that the  
14 subcommittee was hoping that we could get some  
15 clarification on was regarding the mention that  
16 according to one report, Estrin et al., 1982,  
17 states that there could possibly be some impurities  
18 such as neutral oil, arsenic, iron, possible lead  
19 contamination.

20 Those concerns I think for myself as the  
21 lead were a little bit eliminated during the public  
22 presentation by the manufacturer's rep that gave

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1 oral testimony to us the other day saying that with  
2 the new formulations, the new processes that those  
3 were pretty much negligible at this particular  
4 juncture now.

5 It's the hope of the subcommittee that  
6 we could also get some information helping us  
7 address this concern.

8 I also would like at this point to  
9 clarify a mistake in the document that they  
10 addressed, pointed out to us during the public  
11 comment period.

12 In the fifth paragraph of the  
13 subcommittee proposal under the discussion portion  
14 it states, "Its use and compatibility with organic  
15 crop production." That was erroneous. It should  
16 read, "Its use and compatibility with organic  
17 handling and food processing." And we apologize  
18 for that oversight in the preparation on our part.

19 There are alternatives mentioned such  
20 as lactic acid, citric acid, acidified sodium  
21 chlorite as well as peracetic acid that are  
22 currently being used and allowed for use in organic

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1 handling.

2 The subcommittee had three specific  
3 questions to try and gather more information back.  
4 What are retailers currently doing? Are there  
5 alternatives mentioned in the petition currently  
6 being used at the retail level? And if so, how  
7 effective are they in addressing these food safety  
8 concerns?

9 Also at what level, if any, were the  
10 impurities? Which we did get an answer back on  
11 that.

12 We had 10 specific comments back in  
13 writing. We received five comments during the  
14 oral in-person testimony, two for, one neutral, and  
15 two opposed.

16 Those opposed including three consumer  
17 groups and one industry group were concerned with  
18 the environmental impact, that it does not reach  
19 the benchmark of being essential.

20 We had very little data compiled on  
21 human health impact.

22 And there were certain concerns over

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1 the potential contaminants that I think we got  
2 answered yesterday.

3 And also that alternatives exist, and  
4 that it's not compatible with organic principles.

5 And it was pointed out that the  
6 subcommittee did not request a TR on this material.

7 Those supporting the listing of this  
8 material, there were six. They stated that it was  
9 essential at the retail level for raw and ready to  
10 eat fruits and vegetables, that it will help  
11 grocers and retailers improve food safety for  
12 organic consumers and customers via increased  
13 efficacy on pathogenic and spoilage organisms.

14 The product AFVT is specifically  
15 designed for this need and use, whereas citric acid  
16 or lactic acid do not achieve the same level of  
17 efficacy as this formulated material would.

18 It also states that they disagree with  
19 the subcommittee about raising concerns over the  
20 human health exposure.

21 It is diluted at the point of use and  
22 applied via automatic dilution system to help

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1 minimize the exposure.

2 I would make comments back to that  
3 concern in their comments raised back to us that  
4 they're referencing the end use product, AFVT.  
5 Our concern was at the point of manufacture and  
6 transportation and dealing with the sodium  
7 dodecylbenzene sulfonate itself rather than the  
8 finished formulated product.

9 I'd also point out that this was a  
10 912-page petition that dealt with, in part, the  
11 material itself, SDBS, but quite extensively to the  
12 finished formulated material. So, there were a  
13 lot of moving parts and there was a lot of sifting  
14 that we had to do as we went through this petition  
15 review.

16 They also defend that -- we raised a  
17 concern that this material was not GRAS.

18 There's also -- one public commenter  
19 pointed out that we should not consider moving  
20 forward with this material without first asking for  
21 a TR.

22 One other comment pointed out to the

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1 full Board that sodium dodecylbenzene sulfonate,  
2 CAS 2555-30-0, is currently listed on EPA's Safer  
3 Choice Ingredients List, or SCIL.

4 With that I'll open it up for questions  
5 or discussions from the Board. Jean.

6 MEMBER RICHARDSON: Yes, I'm on the  
7 Handling Subcommittee. One of the reasons why we  
8 didn't, as you recall, request a TR was that during  
9 our analysis of the petition and our ensuing  
10 discussion we felt that it would be unlikely that  
11 we would be approving this.

12 And therefore our vote to list it as you  
13 can see is one yes and five no with one abstention  
14 and one absent. And so therefore we felt that it  
15 would be a waste of money to request a TR when we  
16 were probably not going to be listing this based  
17 on our initial analysis.

18 And I must say sitting in the consumer  
19 seat and looking at the comments that have come in  
20 I try to imagine myself going into the supermarket,  
21 into Lisa's supermarket, and seeing a sign over the  
22 veggies there that says "Don't worry, this has been

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1 sprayed with sodium dodecylbenzene sulfonate."  
2 And I would certainly be voting against this,  
3 assuming that we got to vote on this today.

4 MEMBER AUSTIN: Thank you, Jean. Tom?

5 VICE CHAIR CHAPMAN: I think I was the  
6 abstain vote, but I don't quite remember.

7 MEMBER AUSTIN: You were.

8 VICE CHAIR CHAPMAN: I definitely  
9 wasn't the yes, but I think I was the abstain. And  
10 I was torn on this issue.

11 The petitioner and other people have  
12 talked about its use in organic restaurants and  
13 retail establishments, areas that don't require  
14 certification today. So unfortunately you may not  
15 actually ever see that sign because there is  
16 somewhat of a lack of oversight in those areas.

17 But that was part of the reason why I  
18 wasn't convinced on this substance either because  
19 it's kind of a quandary area where it may be used  
20 without any review, and even if we do review it and  
21 allow its use or don't allow its use it still may  
22 go on being used in these areas.

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1 I was also very interested in learning  
2 why alternatives like PAA and hypochlorous acid  
3 couldn't get used because those seem like best in  
4 class sanitizers.

5 There was some public comment back  
6 about the market availability in restaurant and  
7 retail like settings.

8 I am not fully convinced of that yet,  
9 but would still like to learn a lot more.  
10 Actually, I've tried to find PAA and hypochlorous  
11 acid for myself in my home to use and I have yet  
12 to successfully find it. So, I mean, there's  
13 probably some truth to that, but I'd like to learn  
14 more about that.

15 But I'm now ready to send this back to  
16 subcommittee based on actually some recent press  
17 I've been reading.

18 There was a great article that came out  
19 this year in the Tampa Bay Times about the amount  
20 of fraud in farm-to-table restaurants.

21 And there was a great article that just  
22 came out I think a week ago in Civil Eats about the

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1 importance of organic restaurant certification.

2 And so as we look more into that I don't  
3 want to knock off a material that may be used in  
4 that setting.

5 Also keeping in mind that this is a SCIL  
6 listed material I think it's worth our time now to  
7 commission the technical review and get more  
8 information on it before we come to a conclusion.

9 MEMBER RICHARDSON: Could you clarify  
10 the SCIL listing?

11 VICE CHAIR CHAPMAN: Harold, do you  
12 want to speak to that? The SCIL listing.

13 MEMBER AUSTIN: SCIL, that's the EPA's  
14 -- it's the lack of the current and active EPA  
15 lists, list 3, list 4.

16 CHAIR FAVRE: Speak up some if you  
17 would, Harold.

18 MEMBER AUSTIN: With the lack of the  
19 active, the currently non-active list 3, list 4  
20 ingredient lists, this is EPA's Safer Choice  
21 Ingredient List which is something that we as a  
22 Board have been discussing quite in-depth amongst

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1 ourselves.

2 This is a material that is actually  
3 listed on that list. And I think, like yourself,  
4 Tom, because that's a venue that we're going to down  
5 the road probably be utilizing for several things  
6 that we'll be working that are currently on our  
7 National List that we may be looking to move some  
8 of these materials, or some of the materials that  
9 we would be utilizing off of that list that I think  
10 this is an important one that we should probably  
11 maybe move back to the subcommittee and take  
12 another look at as well.

13 But Zea, do you want to give us your  
14 comments?

15 MEMBER SONNABEND: Currently the SCIL  
16 list contains active ingredient as well as inert  
17 ingredients.

18 The program we're talking about  
19 establishing would only be for inert ingredients,  
20 and it really wouldn't apply to active ingredients.

21 That being said, I was not aware that  
22 it was on the SCIL list and I would have questions

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1 about why. And I don't know how much they share  
2 their information on the things they've reviewed  
3 because I haven't -- actually since I wasn't aware  
4 I haven't tried to look it up.

5 But it begs the question to me of if it's  
6 a safer choice, then safer than what? And because  
7 we didn't do a TR we haven't explored those issues.

8 So, I voted no in the committee and I  
9 would never change my vote to yes without a TR. But  
10 I'm sort of neutral about sending it back to the  
11 committee. I'm not -- I would go along with that,  
12 but I would also just vote no today and find out  
13 why it's on SCIL later if that's a good idea.

14 MEMBER AUSTIN: Jean, then Emily.

15 MEMBER RICHARDSON: I'm not in favor of  
16 sending it back to the subcommittee. I think that  
17 certainly we discussed it on two or three of our  
18 subcommittee calls. I'm very comfortable with  
19 voting it not to be added to the list.

20 Especially, you know, at some point in  
21 the future with all the food safety we may be forced  
22 to use things in organic that we would prefer not

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1 to.

2 But I think that we've in a way set the  
3 bar higher with our new sunset in a way so that the  
4 material once we put it on the list is going to be  
5 there maybe for longer than we might want. It  
6 doesn't drop off any more like it used to in the  
7 olden days.

8 And so therefore to me it sort of sets  
9 the bar quite higher. Just because it's on the  
10 SCIL list doesn't indicate to me that it's really  
11 something that I would want to see in the organic  
12 stream.

13 MEMBER OAKLEY: I'm not on the Handling  
14 Subcommittee but I'm perfectly comfortable voting  
15 for it today and would like to do that. And I would  
16 be voting no.

17 MEMBER AUSTIN: Harriet.

18 MEMBER BEHAR: Well, this brings up  
19 what many public commenters brought up was that we  
20 don't really have a framework for reviewing the  
21 sanitizers and disinfectants.

22 And so we look at them one by one, but

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1 it's almost like we should have our own organic list  
2 of the preferred and be able to then compare.

3 And I think it is a good thing to have  
4 a variety of sanitizers and disinfectants who have  
5 the same sort of rotation.

6 But again, without having that  
7 framework and really knowing which is the better  
8 choice. Not that I dislike the EPA, but I would  
9 like to have a chance to dig into some of it rather  
10 than just taking carte blanche acceptance of  
11 something that's on an EPA list. Especially not  
12 knowing how they're choosing.

13 So, I just don't know if we're putting  
14 that on a work plan or not to try to provide us with  
15 a little bit more background when we are deciding  
16 on sanitizers and disinfectants to help us with  
17 those decisions.

18 MEMBER AUSTIN: Tom, then Ashley.

19 VICE CHAIR CHAPMAN: Yes, I mean  
20 perhaps I should not have mentioned SCIL because  
21 the conversation has now devolved to just talking  
22 about SCIL.

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1 I mean, the reason for me wanting to  
2 send it back is I want to foster and grow organic  
3 certification in the restaurant area given the  
4 amount of fraud documented in some of these recent  
5 articles that have been coming out.

6 And it's an optional certification.  
7 So, if we don't list this material and they continue  
8 to use it, they can, and then maybe they choose not  
9 to get organic certified and provide that greater  
10 level of confidence to the consumers.

11 I'm not saying when we get this I want  
12 to vote yes on this material. I just want more  
13 information. I wasn't comfortable at the time we  
14 voted on it, and I wasn't completely certain that  
15 we needed to get more information. I was somewhere  
16 between a no and more information.

17 And since then I don't see the harm in  
18 getting more information at this time.

19 There's no rush. There's no reason to  
20 make a decision here. It's not allowed today.  
21 There's no weirdness about that. And let's get the  
22 more information and then make a decision based on

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1 that.

2 MEMBER AUSTIN: Thank you, Tom.  
3 Ashley?

4 MEMBER SWAFFAR: A couple of  
5 questions. Harold, refresh my memory. If we  
6 arbitrarily vote on this today when the lead wants  
7 to take this back to committee -- sorry.

8 If we decide to vote on this today and  
9 it is denied it can never be brought back again,  
10 correct? Never be repetitioned without --

11 MEMBER AUSTIN: They can bring it back  
12 if they can come back with additional and useful  
13 information in the future.

14 MEMBER SWAFFAR: So, if there is actual  
15 organic certification of more grocery stores and  
16 food restaurants that could?

17 VICE CHAIR CHAPMAN: But would that be  
18 more information? I mean, how many times has a  
19 petition been brought back based on more  
20 information? Does the program know?

21 DR. BRINES: Do you want me to answer  
22 that, Tom?

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1 VICE CHAIR CHAPMAN: Sure.

2 DR. BRINES: Okay, thanks. Yes, we do  
3 -- well, frequently we get inquiries after a  
4 substance has been voted down by the Board of what  
5 the process is to appeal that decision.

6 And our advice is always that the  
7 process would be to submit a petition for further  
8 consideration by the Board.

9 In order to meet the requirement for  
10 eligibility to have that petition reviewed a second  
11 time around the burden is on the petitioner to  
12 provide new information that was not considered by  
13 the Board during its original review, and to  
14 highlight that information so it's clear why it's  
15 coming up.

16 One other consideration is that in your  
17 policy and procedures manual there is criteria for  
18 how petitions get prioritized. And petitions that  
19 have been voted down by the Board and are coming  
20 back as a repetition are assigned the lowest  
21 priority for review.

22 MEMBER AUSTIN: Thank you. Lisa?

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1           MEMBER DE LIMA: So, if we went ahead  
2 and reviewed all the sanitizers as a group as  
3 Harriet was asking if we were going to do, and then  
4 we decided that the subcommittee wanted to bring  
5 the item back under a petition, would that change  
6 the order of the priority of the petition?

7           MEMBER AUSTIN: If we voted it down  
8 right now then it would be up to the petitioner to  
9 bring forth new pertinent information for us for  
10 reconsideration.

11           If we bring it back to the subcommittee  
12 we could slow it up to move it along with the  
13 sanitizers. But we do not have -- right now we do  
14 not have that as one of our work plan or work agenda  
15 items.

16           MEMBER DE LIMA: But we could add it.

17           MEMBER AUSTIN: But we could. Zea,  
18 Emily.

19           MEMBER SONNABEND: Well, I would  
20 suggest that if we did vote it down and decided what  
21 Harriet recommended, to look at all the sanitizers  
22 and do a TR comparing all the sanitizers including

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1 this one the results of that TR would be new  
2 information about the alternatives. And  
3 therefore we could put this back on the table  
4 without a whole new petition.

5 I mean, that's my interpretation and  
6 the department would have to weigh in on it. But  
7 it's new information about alternatives, so we  
8 should be able to reconsider it.

9 MEMBER AUSTIN: Emily, then Tom.

10 MEMBER OAKLEY: Well, I was just going  
11 to note that since so many voted against it in the  
12 Handling Subcommittee the first time around  
13 presumably there were compelling reasons for that.

14 And I'm guessing that's the manufacture  
15 process and the ingredients. So, could someone  
16 elaborate on that?

17 MEMBER AUSTIN: The rationale behind  
18 that was looking at the list of materials that this  
19 ingredient was currently being used in which was  
20 heavy industrial sanitizers, soaps and detergents  
21 we had concerns over the impurities from the  
22 processing process were kind of some of the main

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1 ones.

2 And then just the material itself had  
3 given us some causes for concern without -- but  
4 again, we were making this decision based off of  
5 a 912-page petition and not the help of a TR at that  
6 juncture. Tom.

7 VICE CHAIR CHAPMAN: And another  
8 reason why we didn't vote for it was, I mentioned  
9 it earlier, but we have some of these other  
10 sanitizers already on the list that we consider  
11 very best in class based on what we know right now,  
12 and questioned the need for another one. Why  
13 couldn't those be used.

14 And that was something we were trying  
15 to get people to comment on which we did receive  
16 a comment on.

17 I'm a little -- one question is I'm not  
18 aware of any recent time when the Board has  
19 petitioned a substance itself back to the Board.  
20 I know we've done annotation changes, but I can't  
21 think of any recent time where a petition for a  
22 substance came from the Board.

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1                   So I question if we reject this now if  
2 it would really come back via the Board.

3                   And I just don't understand the harm of  
4 getting more information.

5                   MEMBER RICHARDSON: Call the question.

6                   CHAIR FAVRE: Okay, the question has  
7 been called. Do we have a second?

8                   MEMBER THICKE: Second.

9                   CHAIR FAVRE: Okay. So, the question  
10 has been called and seconded. We need to move  
11 forward with the vote.

12                  VICE CHAIR CHAPMAN: A vote on to call  
13 the question.

14                  CHAIR FAVRE: Yes, a vote on calling  
15 the question.

16                  VICE CHAIR CHAPMAN: Which is to end  
17 discussion.

18                  CHAIR FAVRE: Yes. Start with Tom, is  
19 that right?

20                  VICE CHAIR CHAPMAN: No.

21                  MEMBER SEITZ: Yes.

22                  MEMBER RICHARDSON: Yes.

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1 MEMBER BEHAR: No.

2 MEMBER SONNABEND: Abstain.

3 MEMBER RICE: No.

4 MEMBER OAKLEY: No.

5 MEMBER THICKE: I'm confused. We're  
6 voting on ending discussion?

7 VICE CHAIR CHAPMAN: Ending  
8 discussion. Any further motions to refer back to  
9 subcommittee, all that wouldn't be allowed. We  
10 would have to proceed to a vote on the motion.

11 MEMBER THICKE: Yes.

12 MEMBER AUSTIN: No.

13 MEMBER BUIE: No.

14 MEMBER BECK: No.

15 MEMBER SWAFFAR: No.

16 MEMBER ROMERO-BRIONES: No.

17 MEMBER DE LIMA: No.

18 CHAIR FAVRE: The chair votes yes.

19 Schedule.

20 MEMBER SONNABEND: Did it pass?

21 CHAIR FAVRE: We're waiting to get the  
22 count.

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1 VICE CHAIR CHAPMAN: We didn't get a  
2 clear and accurate count of the vote.

3 CHAIR FAVRE: We didn't have a  
4 majority, let's just put it that way, right? All  
5 right. Three yes, one abstention.

6 All right, so the motion to call the  
7 question did not pass.

8 VICE CHAIR CHAPMAN: I move to refer to  
9 subcommittee.

10 MEMBER BEHAR: I'll second.

11 CHAIR FAVRE: Okay, I have a motion and  
12 a second. Any further discussion?

13 MEMBER AUSTIN: So we have a motion and  
14 a second to refer this back to the subcommittee.  
15 Any further discussion? Francis.

16 MEMBER THICKE: Just one quick  
17 comment. I see the center of this molecule is a  
18 benzene ring.

19 MEMBER AUSTIN: Correct. Emily?

20 MEMBER OAKLEY: I just want to quickly  
21 point out that the Organic Produce Wholesalers  
22 Coalition does not want us to approve this

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1 substance.

2 MEMBER AUSTIN: Any further  
3 discussion? Carmela. I keep skipping you, I'm  
4 sorry.

5 MEMBER BECK: I just wanted to say that  
6 I don't sit on the Handling Subcommittee and it's  
7 always helpful to get some context for the votes  
8 that are not in favor, that are not the majority  
9 vote.

10 So, I was wondering about that  
11 abstention. Correct. And so it was helpful for  
12 you to have provided that context. And that was  
13 helpful for me.

14 And so because of that I'm interested  
15 similarly to send it back so that we can do justice  
16 to the material.

17 MEMBER AUSTIN: Harriet.

18 MEMBER BEHAR: I seconded it to go back  
19 to subcommittee because I like to make decisions  
20 based on information and I don't feel like I have  
21 enough.

22 And I hope that part of that information

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1 will be a larger review of sanitizers and  
2 disinfectants as a whole.

3 MEMBER AUSTIN: Scott.

4 MEMBER RICE: I just wanted to state  
5 that I would echo the comments of those that have  
6 wanted to send it back to subcommittee for further  
7 information for a more informed vote or review.

8 MEMBER AUSTIN: Any further  
9 discussion? If not, Tracy, I'll turn it over to  
10 you for a vote.

11 CHAIR FAVRE: Okay. Just so  
12 everybody's clear we're voting on the motion to  
13 send it back to subcommittee. And we're going to  
14 start that vote with Dan.

15 So a yes vote will send it back to  
16 subcommittee. Sorry, I wasn't sure if you were  
17 thinking or confused.

18 MEMBER SEITZ: No, I was thinking.  
19 And so long as it's done in the context of looking  
20 at the entire range of sanitizers I am fine with  
21 that. So, yes.

22 MEMBER RICHARDSON: No.

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1 MEMBER BEHAR: Yes.

2 MEMBER SONNABEND: Abstain.

3 MEMBER RICE: Yes.

4 MEMBER OAKLEY: No.

5 MEMBER THICKE: No.

6 MEMBER AUSTIN: Yes.

7 MEMBER BUIE: Yes.

8 MEMBER BECK: Yes.

9 MEMBER SWAFFAR: Yes.

10 MEMBER ROMERO-BRIONES: No.

11 MEMBER DE LIMA: No.

12 VICE CHAIR CHAPMAN: Yes.

13 CHAIR FAVRE: The chair votes yes.

14 MEMBER DE LIMA: Simple majority. So

15 eight yes, six no, one abstain. The motion passes.

16 CHAIR FAVRE: The motion passes.

17 Okay, this will be sent back to committee.

18 MEMBER AUSTIN: Okay. All right.

19 We're going to continue to move forward, at least

20 try to get one more material in before we break for

21 lunch. That will be Madam Chair's decision.

22 The next proposal to bring forward is

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1 on ancillary substances. Dr. Brines.

2 MEMBER SONNABEND: This is not one for  
3 Lisa because it's not a petitioned item.

4 MEMBER AUSTIN: Okay, Zea.

5 MEMBER SONNABEND: So, I'm going to  
6 launch right into this.

7 Ancillary substances has been  
8 discussed for several years now. We passed an  
9 overall policy on NOSB review of these in 2014.  
10 And we've been trying to follow through on that  
11 proposal ever since.

12 It has been sent back a couple of times  
13 and now I think we have a procedure that will work.

14 This is a very arcane topic and so I'm  
15 going to give some sort of a review flow chart so  
16 that new members of the Board in particular can be  
17 clear how this is going to work.

18 So, the document itself that we've put  
19 forward gives the definition of ancillary  
20 substances and then talks about how the NOSB will  
21 review it.

22 A lot of feedback we got was from

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1 certifiers from the previous versions who were  
2 confused and concerned that this would require too  
3 much extra paperwork and not be easy to follow  
4 through on.

5 Okay, so this is the flow. The first  
6 thing is a petition for a substance comes in, or  
7 else the sunset process starts to review something  
8 on the National List.

9 Those would be in effect, you know, the  
10 active ingredient or the main substance of what  
11 we're reviewing.

12 These things come along with other  
13 ingredients that we're calling ancillary  
14 substances. And this is to distinguish it from  
15 other ingredients in crops products which are  
16 normally known as inert ingredients, even though  
17 we all know they're not inert. But we can't call  
18 everything an other ingredient.

19 So, when we start this process we  
20 generally commission a technical report. And each  
21 TR for those substances that may contain  
22 ancillaries will have a chart of the ancillary

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1 substances in use and I'll give an example in a  
2 second.

3 The TR will evaluate those ancillaries  
4 along with each substance for each of the criteria  
5 in OFPA and the special handling criteria.

6 Any ancillaries that could be used that  
7 do not meet those criteria will be flagged in the  
8 technical report.

9 And this is a new part that we've added  
10 for this meeting. Any that are on the IARC list  
11 or NTP list of problematic ones causing cancer and  
12 others will be flagged in the technical report.

13 Here is an example. The first one we  
14 took up was microorganisms and dairy cultures.  
15 And this is by functional class. So this shows,  
16 you know, these are anti-caking agents, these are  
17 carriers and fillers. Then there's some  
18 preservatives, stabilizers, cryoprotectants and  
19 then substrate.

20 So, it should be mentioned that because  
21 these substances are generally on the National List  
22 and are used in a microorganism, for instance, a

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1 microorganism might be 1 or 2 percent of a final  
2 product that's formulated. It's allowed in  
3 organic products in the 95 percent category.

4 And then the ancillary substance might  
5 be 0.5 of that 1 percent in many cases. So these  
6 are things that are used in very small amounts.

7 In a lot of cases they're used up.  
8 Like, a lot of these are the growth media, the  
9 substrate. And so they're just common  
10 agricultural products.

11 But sometimes they are stabilizers or  
12 what's known as standardizing agents so that a  
13 substance will have the same content every time you  
14 use it. So there's a variety of functional classes  
15 that these are used for.

16 So, this chart, for each item that has  
17 ancillary substances will be in the TR.

18 Okay. Once we get the TR back we will  
19 review the TR, the Handling Subcommittee. And  
20 that will include the chart of ancillary substances  
21 and how each ancillary substance is affected by the  
22 criteria that the TR contractor reviews.

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1           What is called the baseline criteria is  
2 what we, the NOSB, use when we look at ancillary  
3 substances. And those are listed in the document.  
4 We've looked at whether it's on the National List  
5 already, that it's GRAS, that it's a direct food  
6 additive and therefore allowed by the FDA, and now  
7 that it is not on these lists of IARC or NTP.

8           So, the flagged ones that we decide not  
9 to accept will be in the proposal for posting for  
10 public comment along with the chart.

11           If it's sunset it will be in the first  
12 posting. If it's a new petition it will be in the  
13 posting.

14           And we will ask for input from the  
15 stakeholders. If they have additional ancillary  
16 substances they're aware of that were not looked  
17 at in the TR, if they have ones they think are  
18 problems that were not flagged in the problem ones,  
19 all of that will be posted for public comment so  
20 everyone can weigh in on that.

21           Then we take all that public comment.  
22 We pass our proposal or complete our sunset review.

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1 And any of those ancillary substances that get in  
2 with the substance are then accepted. And if we  
3 have any that are prohibited, right now it says for  
4 sunset if they're prohibited we have to have a  
5 separate proposal coming forward to specifically  
6 prohibit them. That will come along with the same,  
7 you know, at the meeting that we complete our sunset  
8 review.

9 So, this then doesn't take effect until  
10 the NOP does rulemaking for the sunset review or  
11 for the petition to add it to the National List.

12 And then after that is where the ACA  
13 responsibilities kick in. They need to consult  
14 the chart that was published of these are the  
15 ancillary substances that are allowed.

16 They don't have to do anything  
17 additional if it's been approved on the list. But  
18 if there's a new ancillary substance that appears  
19 we have a proposed template that they use with some  
20 slightly modified criteria in the document that  
21 they could use to determine compliance of new  
22 ancillary substances only.

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1           The template is not -- we're not posing  
2           it as a requirement. It was just some suggestions.  
3           And that they would also then have to consult the  
4           lists themselves to make sure it wasn't on those  
5           lists for any new ancillary substance.

6           So, I think we have a procedure that is  
7           workable. We still have a bit of certifier concern  
8           over paperwork, but not nearly -- most of the  
9           certifiers felt it was achievable that we heard  
10          from.

11          And while we still definitely get some  
12          comments from groups that want every ancillary  
13          reviewed on the National List individually that is  
14          going to be way beyond my term on the Board. And  
15          so if anybody really wants to do that you can vote  
16          no, but then you need to be prepared to take this  
17          on for the next five years as far as I'm concerned.

18          So, I am done working on this subject.  
19          If we don't pass this we are -- someone else is  
20          taking it on.

21          But I think -- oh, so one other point  
22          I do have to address is some people were concerned

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1 that things, particularly ethyl alcohol and meat,  
2 would not be able to be used because they do appear  
3 on the list.

4 Emily Brown Rosen checked up the actual  
5 wording on those lists for us and it specifically  
6 says ethyl alcohol in alcoholic beverages. It  
7 doesn't list everything on those lists by use and  
8 application, but it does list those too.

9 And besides, hopefully the first TR for  
10 the substance would catch the fact that there was  
11 ethanol in it, and it would be on the chart, and  
12 therefore we would have approved it in spite of the  
13 lists if we wanted to, because we would approve it.

14 Same thing for meat. It says on the  
15 list meat for human consumption. If someone wants  
16 to put some burgers in your microorganisms or  
17 whatever it would appear on this list hopefully and  
18 be approved. So, I do think those concerns are  
19 addressed and there's no reason not to move forward  
20 with this proposal.

21 MEMBER AUSTIN: Thank you, Zea.  
22 Francis, then Harriet.

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1                   MEMBER THICKE:    Yes.    Zea, for the  
2                   last round of sunsets we had a lot of new TRs.    And  
3                   so when they come up again will we have to do another  
4                   TR for them?

5                   MEMBER SONNABEND:        So far the  
6                   microorganisms which was a sunset 2016 item we  
7                   decided to do as a pilot project until we could get  
8                   the procedure in place.

9                   During the 2017 sunset we did prepare  
10                  the charts for pectin which is very short and for  
11                  yeast.

12                  But once the procedure is in place a  
13                  chart would have to be created for the other things  
14                  we reviewed in 2017.    But we haven't discussed  
15                  amongst ourselves whether we're going to back up  
16                  and do that for those things, or whether we're going  
17                  to wait for the next sunset review.    That is not  
18                  determined yet.

19                  VICE CHAIR CHAPMAN:    Dairy cultures as  
20                  well.

21                  MEMBER SONNABEND:        Well, we added  
22                  dairy cultures in with this one.

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1           But there are some things that we did  
2 approve last time including enzymes and vitamins  
3 and minerals, those in particular. There are a few  
4 others that may have had a few ancillary substances  
5 but those are big ones that there needs to be some  
6 definite scrutiny on the chart.

7           MEMBER AUSTIN: Harriet, then Emily.

8           MEMBER BEHAR: So, I'm trying to  
9 understand how this works. So we get  
10 microorganisms and maybe the Board would vote that  
11 only microorganisms that contain the preservative  
12 ascorbic acid could be used. Is that right?

13           And then only those formulations would  
14 be approved by the ACA? I'm just trying to --  
15 that's the way. So, okay.

16           MEMBER SONNABEND: If you wanted to do  
17 that you could do that.

18           We did already vote this one with this  
19 chart in it. But you could have at the time pulled  
20 one or more of these off and said I don't want to  
21 approve these as having been reviewed.

22           MEMBER BEHAR: Okay, so just as a

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1 follow-up since organic is kind of a continuous  
2 improvement, I mean it's -- I don't know how to put  
3 it in place and I like what you've done so far.

4 But it would be nice to have almost a  
5 list of like the preferred ancillary and then try  
6 to push the manufacturers towards moving towards  
7 that.

8 Because that might be part of the issue  
9 is that not everything that's necessary in the  
10 product has the ancillary ingredients that we like  
11 the most.

12 So, I don't want to stop the use of the  
13 main ingredient based on that the ancillary might  
14 be a problem.

15 But it might be nice for manufacturers  
16 to know that there are customers out there that  
17 would prefer to use an ingredient that had a  
18 preferred ancillary.

19 And I'm sorry I don't have that in my  
20 head exactly how to do that. But it's just, you  
21 know. Because there's a lot of things on this list  
22 that are more preferable than others.

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1                   MEMBER SONNABEND:     Achieving that  
2 involves joining the Handling Subcommittee and  
3 spending all of your NOSB time on ancillary  
4 substances. So you're welcome to.

5                   MEMBER AUSTIN:   Emily.

6                   MEMBER OAKLEY:       I definitely  
7 understand that this is a complicated subject and  
8 far beyond my knowledge level, but I have a  
9 question.

10                   So, I realize there are hundreds of  
11 materials that couldn't possibly all be reviewed  
12 individually in one fell swoop.

13                   My concern is if a new substance comes  
14 up is it essentially up to the accrediting  
15 certifying agency to like approve it so to speak?  
16 Because they're against these criteria certainly.  
17 But they're sort of performing an NOSB function on  
18 some level at that point. Is that correct, or  
19 would you characterize it differently?

20                   MEMBER SONNABEND:     Most of the  
21 additional ones that would come up would be like  
22 other substrate ingredients instead of rice,

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1       barley and wheat.  Maybe triticales, for instance.  
2       I mean, they're just like very routine type things.

3                 If one came up that they really felt was  
4       problematic they could turn it in to the NOSB before  
5       they approved it.

6                 They're under no obligation to approve  
7       one that is not on the list.

8                 MEMBER OAKLEY:  Could I follow up with  
9       a quick question?

10                How many new ancillary substances do  
11       you anticipate the agencies having to review, or  
12       is that something you can't anticipate?

13                MEMBER SONNABEND:  Maybe Scott has a  
14       better idea.

15                MEMBER RICE:  I couldn't estimate a  
16       number, but I would say that with the criteria  
17       that's presented there was general agreement from  
18       the certifiers that this was a sensible way of  
19       moving forward barring looking at every -- running  
20       every single material through the petition  
21       process.

22                I had one other question, but I can --

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1                   MEMBER SONNABEND: Well, let me just  
2 respond to Emily a bit first.

3                   We did post this particular chart three  
4 times for three different meetings. Each time we  
5 got in one or two more things to add to the chart.  
6 But they were all in the -- I would say in the  
7 agricultural categories, not in the other -- just  
8 other things that could be substrates.

9                   MEMBER AUSTIN: Scott and then Dan.

10                  MEMBER RICE: There was a couple of  
11 comments from certifiers curious if the criteria  
12 from the 2013 proposal was being supplanted or  
13 amended.

14                  MEMBER SONNABEND: And I tried to make  
15 that clear that the first set of criteria from the  
16 2013-14 proposal is what we the NOSB use when we're  
17 looking at the chart.

18                  And then the other ones that are in this  
19 are for certifiers to use when they want to add  
20 things in the chart.

21                  They're not that different, but there  
22 are a few minor differences.

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1 MEMBER RICE: Thanks.

2 MEMBER AUSTIN: Dan.

3 MEMBER SEITZ: So, as a new Board  
4 member like Emily this is somewhat over my head in  
5 terms of what effect this has.

6 My sense is that this tightens up  
7 overall our oversight over ancillary substances.  
8 But could you sort of explain that in a brief way  
9 how that tightens up oversight? If that's  
10 correct.

11 MEMBER SONNABEND: Okay. Well,  
12 members of the public have raised concerns over  
13 things like formaldehyde being included as a  
14 potential preservative.

15 Now, I don't even think formaldehyde is  
16 allowed to be used in food, period. But that's the  
17 type of concern that we're trying to dispel by  
18 taking a look at all the things that could possibly  
19 be in there.

20 Because as we all know the FDA allows  
21 a lot more things than we allow in organic. And  
22 so we feel like it's due diligence to take a look

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1 at all of the things that are in there in case there  
2 are some that really start ringing bells that we  
3 really need to prohibit it.

4 MEMBER RICHARDSON: I think, too, Dan,  
5 what it does is it gives us a framework to be sure  
6 that there's less -- I mean, I'm not going to say  
7 we might find every ancillary. But this gives us  
8 a framework to ensure that we do the due diligence.

9 So I think it's a really good step  
10 forward to tighten up and get a structure so we're  
11 less likely to have something fall through the  
12 cracks.

13 MR. MCEVOY: This is Miles. Point of  
14 clarification. If you pass this recommendation  
15 then AMS will take a look at it to see how it would  
16 potentially be implemented.

17 You were talking about certifiers doing  
18 things and it almost sounded like they would do  
19 those things immediately based on the  
20 recommendation.

21 Certifiers would not do that. The  
22 certifiers would only do that if there was some

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1 rulemaking or instructions to certifiers to start  
2 to actually implement any recommendation that you  
3 passed.

4 So I just wanted to clarify the process  
5 here. There's a recommendation. Then there's  
6 that implementation part where AMS has to either  
7 do rulemaking to implement this or somehow  
8 instructing certifiers to start to conduct that  
9 review of ancillaries.

10 MEMBER SONNABEND: Although, Miles,  
11 right now certifiers do use the charts in the TRs  
12 to take a look at ancillary substances. That's not  
13 that big of a change from what they're already  
14 doing.

15 MR. MCEVOY: Well, they have to be  
16 evaluating the substances that they're using based  
17 on the current regulations and guidance and  
18 instructions that we provide, not on the NOSB  
19 recommendations unless they've been specifically  
20 adopted by the NOP.

21 For instance, for grower groups we've  
22 adopted the NOSB recommendations in instructions

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1 to certifiers.

2 In this particular case if they're  
3 doing this review based on an NOSB recommendation  
4 without further instruction from the program  
5 that's not the correct procedure. They should not  
6 be doing that.

7 MEMBER SONNABEND: Well, isn't there  
8 some procedure right now for how they determine  
9 compliance? Because some of them even in fact  
10 prohibit certain things in ancillary substances  
11 already. So they must be doing that under the  
12 auspices of NOP.

13 MR. MCEVOY: No, they would be doing  
14 their reviews based on the regulations and guidance  
15 and instructions. So, the materials review  
16 process that they conduct is based on the  
17 regulations and the further instructions that  
18 we've provided to them in the handbook and through  
19 TR. This is not part of that.

20 MEMBER AUSTIN: Thank you for that  
21 clarification. Any further discussion? Emily.

22 MEMBER OAKLEY: This is just another

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1 question. I'm still just confused as to how many  
2 new ancillary substances are anticipated to come  
3 up that certifying agents would have to review.

4 I mean, is this -- can somebody give me  
5 a general estimate? And how would those -- no.

6 MEMBER SONNABEND: Well, we can't  
7 because we've never tried tabulating them for all  
8 the types of products.

9 And it's quite different for the  
10 different types of products. Pectin, for  
11 instance, only had two things. It had dextrose or  
12 some other type of sugar and like citric acid, or  
13 the salt of citric acid for a standardizing agent.

14 There's probably zero chance that any  
15 additional ones would come in for pectin because  
16 it's just so always that way.

17 But you start looking at the vitamin and  
18 mineral formulations, and natural flavorings is  
19 another one that has lots and lots of ancillary  
20 substances. So there might be a lot because it  
21 would be very hard to capture them all at the first  
22 time you try.

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1           But there are -- I mean, the reason we  
2           don't want to have to put each one on the National  
3           List is it's hundreds, hundreds of them.

4           MEMBER AUSTIN: Emily, this was one of  
5           the concerns that we all had when this first came  
6           up was what the scope of this might actually lead  
7           to and the time constraints that it might have  
8           actually on this Board.

9           And so this is one of our attempts to  
10          try to streamline the process as much as possible  
11          if we can.

12          One more question and then we need to  
13          move on I think. Go ahead.

14          MEMBER OAKLEY: So, as new substances  
15          come up will they be identified, tabulated,  
16          categorized? By whom, the Handling Subcommittee?

17          MEMBER AUSTIN: We're hoping that that  
18          information will be included in the petition and  
19          also in the TR.

20          Harriet and then we probably need to  
21          move this to a vote.

22          MEMBER BEHAR: Very quick. This just

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1 gives us transparency. This is what I think the  
2 original request from the public was, to have  
3 transparency.

4 And so when we are reviewing items and  
5 when the certifiers are reviewing items that  
6 everyone knows what's in the product. And we're  
7 just going into it with our eyes open.

8 MEMBER AUSTIN: Thanks, Harriet. Any  
9 other questions?

10 Okay, we do have a proposal that is a  
11 motion with a second from the subcommittee before  
12 us.

13 That motion is to adopt the proposal as  
14 stated above for the definition, criteria for  
15 compliance and procedure for the review of  
16 ancillary substances.

17 It's come from the subcommittee as a  
18 motion by Zea, seconded by Jean Richardson in front  
19 of us for a vote by the entire NOSB. I will turn  
20 it over to you, Tracy.

21 CHAIR FAVRE: Okay, we're going to  
22 start the vote with Jean.

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1 MEMBER RICHARDSON: Yes.

2 MEMBER BEHAR: Yes.

3 MEMBER SONNABEND: Yes.

4 MEMBER RICE: Yes.

5 MEMBER OAKLEY: Yes.

6 MEMBER THICKE: Yes.

7 MEMBER AUSTIN: Yes.

8 MEMBER BUIE: Yes.

9 MEMBER BECK: Yes.

10 MEMBER SWAFFAR: Yes.

11 MEMBER ROMERO-BRIONES: Yes.

12 MEMBER DE LIMA: Yes.

13 VICE CHAIR CHAPMAN: Yes.

14 MEMBER SEITZ: Yes.

15 CHAIR FAVRE: The chair votes yes.

16 MEMBER DE LIMA: Fifteen yes, zero no.

17 The motion passes.

18 MEMBER AUSTIN: Moving forward to our  
19 last material in front of us today. It would be  
20 a discussion document on nutrient vitamins and  
21 minerals annotation change. Zea?

22 MEMBER SONNABEND: Okay, this will be

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1 short because I'm sure people want to get to lunch.  
2 And this is just a discussion document so no action  
3 will be taken.

4 Well, those of you who were here in  
5 Vermont I had a little hissy fit over frustration  
6 that the department had not moved forward with all  
7 of the recommendations we made in 2012 and '13 about  
8 ingredients in infant formula, and even dating back  
9 as 2011 on DHA.

10 And how they got very bogged down by  
11 having a proposed rule that would have revised the  
12 listing somewhat that has not -- it has advanced  
13 to an interim final rule, but it has not advanced  
14 to a final final rule.

15 So, and there's a very long history  
16 which we have repeated. We shortened it for this  
17 one, but we had repeated it -- no, we didn't shorten  
18 it. I guess it's just as long. In the sunset  
19 review for this subject.

20 From the very beginning of the National  
21 List there was a mistaken citation to the CFR and  
22 we can't even get that corrected in 20 years of

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1 doing this.

2 So I did feel like there's some need to  
3 continue to try and tackle the problem.

4 However, it's pretty clear that this is  
5 an issue that is not going to move forward  
6 satisfactorily because of it's all tied up with  
7 money and corporate influence, I guess.

8 And so I just put out this discussion  
9 document, or we the Handling Subcommittee to talk  
10 about some of our different preferred options for  
11 changing the listing.

12 We got a lot of public comment back.  
13 I'm not going to try and go into every single one  
14 of it because this clearly is going to need further  
15 work, but we got a lot of comment back concerning  
16 giving away our power to the FDA.

17 And that is something I absolutely  
18 reject because the citation given for the FDA  
19 standard identity is just that, it's a standard of  
20 identity. It's not giving them power over the  
21 National List in any way, shape, or form.

22 That being said, the alternative

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1 proposal was to list each individual vitamin and  
2 mineral on the National List which was probably  
3 what would have been correct from the outset  
4 because listing groups is always a problem.

5 And unlike enzymes, for instance, where  
6 there's about 8 million of them there is a finite  
7 list of vitamins and minerals that are approved by  
8 the FDA, and a great many of the specific forms are  
9 already on the National List so this probably could  
10 be done and probably should have been done. But  
11 I'm not sure that it should be done going forward.  
12 I am not ready to go there myself. We'll see.

13 We got a lot of people who wanted to  
14 restrict the vitamins and minerals to those  
15 required by law, but didn't really like how  
16 complicated I made it, and didn't like the "made  
17 with organic" category.

18 And then we got a lot of people who  
19 supported just changing the terminology in the  
20 listing but still allowing all the vitamins and  
21 minerals for all food in all categories, but with  
22 the correct citation in there.

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1           It got pointed out to us that some  
2 problems with saying vitamins and minerals for food  
3 which we had thought was a good listing. But it  
4 does not include feed and it does not include  
5 dietary supplements.

6           And therefore, we have to be more clear  
7 about exactly what we're including and not  
8 including if we were to adopt such a change in  
9 terminology.

10           So, this is going back to subcommittee  
11 clearly. I'm nearing the end of my term on the NOSB  
12 and this is probably not what I'm going to work on  
13 any further because I have some important  
14 priorities of things to get done including coming  
15 forward hopefully with a BPA packaging discussion  
16 document for the next meeting.

17           And so maybe another subcommittee  
18 member will take this on and decide on what the next  
19 version of this would look like.

20           But in the meantime we're stuck. The  
21 interim final rule is not going to final anytime  
22 soon from what I hear. And we're not going to

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1 remove the infant formula items that we voted off  
2 for the list without some extreme political  
3 pressure to do so.

4 So that's where it stands. And if  
5 anyone has questions I am happy to take them.

6 MEMBER AUSTIN: Questions for Zea?  
7 Harriet.

8 MEMBER BEHAR: There was a public  
9 comment I think from a few people that suggested  
10 when you cite the CFR that you also list the  
11 vitamins that are in the CFR. Okay.

12 MEMBER SONNABEND: I -- mention that  
13 and said that probably should have been done from  
14 the beginning. But whether we go back and redo it,  
15 I don't know. It's a possibility.

16 MEMBER AUSTIN: Tom.

17 VICE CHAIR CHAPMAN: I want to note too  
18 that we had a couple of comments about enteral  
19 feeding and that these proposals or these options  
20 didn't accommodate the enteral feeding needs.

21 And I noticed looking back over the old  
22 minutes of the individual nutrients that were

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1 reviewed there was like some of them had -- the NOSB  
2 at that time added some annotation to those for  
3 enteral feeding.

4 But I don't think the holistic look was  
5 done on the major vitamins and minerals listing.  
6 I don't know for certain. But that's definitely  
7 I think something that needs to be thought through.

8 MEMBER SONNABEND: We were told by the  
9 department that we could not put that annotation  
10 on.

11 VICE CHAIR CHAPMAN: Oh, really.

12 MEMBER SONNABEND: Yes. And I knew  
13 why at the time and I can't remember why now.

14 MEMBER AUSTIN: Emily.

15 MS. BROWN ROSEN: That had to do with  
16 a consultation with FDA on how they regulate  
17 enteral products. And they don't really recognize  
18 that as a class. It's more of like an individual  
19 approved product by FDA. So they did not want us  
20 to have that on the list.

21 They have come out with some new  
22 guidance on those products which I haven't really

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1 looked at yet, but I will send that around and we  
2 can look at that further.

3 MEMBER AUSTIN: Thank you.

4 VICE CHAIR CHAPMAN: I'd appreciate  
5 that.

6 MEMBER AUSTIN: Any other questions or  
7 comments? All right. Thank you, Zea.

8 Tracy, that ends the presentation for  
9 today from the Handling Subcommittee to the NOSB.

10 CHAIR FAVRE: Thank you, Harold.  
11 Okay, we're running considerably behind schedule  
12 today. We are going to go ahead and take our lunch  
13 break now, but I'll ask you to be back instead of  
14 at 1:45 making it 1:30. We'll try to make up a few  
15 minutes then.

16 We will begin with crops immediately at  
17 1:30. Thank you.

18 (Whereupon, the above-entitled matter  
19 went off the record at 12:30 p.m. and resumed at  
20 1:35 p.m.)

21 MEMBER SONNABEND: Okay, welcome to  
22 the Crops Subcommittee. We're going to start with

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1 the 2018 sunset substances.

2 The first one up is copper sulfate which  
3 is mine which I'm pulling up right now.

4 DR. BRINES: Zea, would you like me to  
5 proceed with the introduction?

6 MEMBER SONNABEND: Oh yes, please.

7 DR. BRINES: There are two listings for  
8 copper sulfate that fall under the sunset 2018  
9 review.

10 The substance is listed under Section  
11 205.601 of the National List as a synthetic  
12 substance allowed for use in organic crop  
13 production.

14 The two listings read as follows.  
15 Under paragraph A as algicide disinfectants and  
16 sanitizer including irrigation systems cleaning.

17 Number three, copper sulfate for use as  
18 an algicide in aquatic rice systems is limited to  
19 one application per field during any 24-month  
20 period.

21 Application rates are limited to those  
22 which do not increase baseline soil test values for

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1 copper over a time frame agreed upon by the producer  
2 and accredited certifying agent.

3 The second listing appears under  
4 paragraph E as insecticides including acaricides  
5 or mite control.

6 As number four, copper sulfate for use  
7 as a tadpole shrimp control in aquatic rice  
8 production is limited to one application per field  
9 during any 24-month period.

10 Application rates are limited to levels  
11 which do not increase baseline soil test values for  
12 copper over a time frame agreed upon by the producer  
13 and accredited certifying agent. Thank you.

14 MEMBER SONNABEND: Okay. Copper  
15 sulfate has been an extensively reviewed material  
16 in the past both for disease control and for these  
17 two uses which are particular to rice production.

18 And I should say that they are  
19 particular to rice production in California as far  
20 as I know. At least the rest of the rice growing  
21 areas of the United States do not have the same  
22 weather conditions that lead to the need for this

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1 material.

2 And I don't think most of the rest of  
3 the world does either.

4 I know quite a bit about this material  
5 because truthfully I was the original petitioner.  
6 Well, CCOF was the original petitioner and I wrote  
7 the petition. And on behalf of the many rice  
8 growers in California.

9 At the time that it was first put on the  
10 list many rice growers were heard from. And in the  
11 time it was last reviewed which was immediately  
12 before I joined the Board many rice growers were  
13 heard from.

14 We asked for questions about new  
15 information concerning alternatives that were  
16 being looked at. And we asked for what producers  
17 were seeing in the increase in soil test values for  
18 copper.

19 We only received very few comments.  
20 And the very few comments did not give us specific  
21 data about their soil tests for copper, but all  
22 indicated that it wasn't a problem in terms of

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1 buildup.

2 I haven't inspected rice in a few years,  
3 but I can say I've inspected a lot of rice in the  
4 past and we do look at soil tests and we do monitor  
5 the use of copper.

6 As far as viability of alternatives,  
7 during the last review when I was not on the Board  
8 but we submitted comments for CCOF and so the Board  
9 had access to the research material that we knew  
10 about.

11 And the California Rice Research  
12 Institute researches materials every year and I  
13 submitted their reports from I think it was 2010  
14 backwards, for four or five years backwards.

15 And they had looked at a few things  
16 including -- a few things that were organically  
17 acceptable including sodium carbonate,  
18 peroxyhydrate which was a 2015 sunset item, and  
19 maybe OxiDate. I can't remember all the things  
20 they researched. But none of them worked.

21 I have not scrutinized their report yet  
22 for this review but I will when we have the second

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1 posting. This first posting was a call for the  
2 public to submit information primarily.

3 But I strongly suspect because I talked  
4 to several rice growers in preparing for this  
5 review and they told me they were not aware of new  
6 research, and they get informed about that by the  
7 rice research board.

8 And those things just did not work.  
9 The sodium carbonate peroxyhydrate which we did a  
10 recent review of we had several of the growers write  
11 in and say that they had tried it and it just did  
12 not work for the situation.

13 Because we're running behind I don't  
14 want to go into a great level of detail on exactly  
15 how this is used, but it's used only occasionally  
16 when a certain set of weather conditions occur  
17 during the period between when the rice is seeded  
18 and the time it emerges from the water.

19 So it's about a five- to seven-day  
20 period and if the weather is just so, like if it  
21 stays somewhat cold and therefore the water stays  
22 somewhat cold, and the scum disease, they call it

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1 scum disease. It's an algae. But the rice is not  
2 able to emerge through the water because this thick  
3 scum forms on top of it.

4 And the same type but slightly  
5 different weather conditions lead to the tadpole  
6 shrimp getting out of control.

7 So, we did not receive new information  
8 about any alternatives. We will do a more complete  
9 review in the fall based on our own research and  
10 the limited amount that we did receive in public  
11 comment. Any questions? Harriet.

12 MEMBER BEHAR: So, I believe this is on  
13 our research priorities list? Or is it for  
14 different use?

15 MEMBER SONNABEND: Copper as a whole  
16 is. And it doesn't single out rice use of copper  
17 versus all the other uses of copper. But as a  
18 whole.

19 MEMBER BEHAR: So the scum production  
20 and the tadpole. There isn't a specific research  
21 action item to look at alternatives to copper for  
22 those uses?

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1                   MEMBER SONNABEND:   But it's included  
2                   in the overall copper because we're not as specific  
3                   in our research priorities.

4                   MEMBER RICHARDSON:    Just a quick  
5                   question to verify.  So it looks like the intent  
6                   of the Crops Subcommittee so far is that this should  
7                   stay on the list.

8                   MEMBER SONNABEND:    Yes, we did not  
9                   receive new information to that effect.  Any  
10                  other?  Okay.

11                  Next is ozone gas.  Lisa?

12                  DR.  BRINES:        Thank you.        This  
13                  substance is included under Section 205.601 of the  
14                  National List under paragraph A, number five, ozone  
15                  gas for use as an irrigation system cleaner only.  
16                  Thanks.

17                  MEMBER THICKE:    That's me, right?

18                  MEMBER SONNABEND:    I think so.

19                  MEMBER THICKE:    Okay.  So, ozone was  
20                  originally petitioned for use for wheat control.  
21                  It was to be injected into irrigation tape under  
22                  mulch.

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1           And then it was subsequently petitioned  
2           to be used to clean irrigation lines. And it's a  
3           strong oxidant. And it works by oxidizing plant  
4           tissue in bacterial membranes.

5           Well, in 2002 ozone was not approved for  
6           wheat control but only approved for irrigation  
7           system cleaning.

8           And again, at sunset in November 2007  
9           it was relisted by 14 to zero. At sunset in 2011  
10          it was relisted again by a vote of 13 to zero.

11          The Crops Subcommittee for the first  
12          round asked to see if it's used by producers. And  
13          we didn't get a lot of comments, but we did get  
14          enough to know that it's used by a fair number of  
15          producers.

16          And all of our comments were positive  
17          except that there was some concern about ozone  
18          being a strong oxidant that it can be not only an  
19          air pollutant but also can be hazardous to health.

20          But if used in an irrigation system  
21          properly it shouldn't have those problems.

22          So we didn't have any comments that

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1 would indicate to us that we shouldn't relist it.  
2 So I don't know that we would be inclined to do that  
3 at this point.

4 Any comments or questions?

5 MEMBER RICHARDSON: I mean, the ozone  
6 gas is pretty serious for human health. I mean,  
7 if you're an asthmatic you don't want to be anywhere  
8 near that stuff.

9 And I mean, I use it for mold control  
10 in the basement because it's so darned effective.  
11 But as you say it's within an irrigation system so  
12 it should be okay.

13 But it would be good for you just to look  
14 to verify that they are not using it in such a manner  
15 that it could in fact escape because then it will  
16 definitely be a human health impact on the workers.

17 MEMBER THICKE: It could be with the  
18 workers if it weren't handled properly, that's  
19 right.

20 MEMBER SONNABEND: I don't see any  
21 other questions so we are ready to move on to  
22 peracetic acid. I believe that's Harold.

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1 DR. BRINES: Yes, and I'll go ahead and  
2 introduce it. Thank you.

3 There are two listings for peracetic  
4 acid under consideration for the sunset 2018  
5 review.

6 The first listing appears at Section  
7 205.601(a)(6) and is listed as peracetic acid for  
8 use in disinfecting equipment, seed and asexually  
9 propagated planting material. Also permitted in  
10 hydrogen peroxide formulations as allowed in  
11 Section 205.601(a) at concentration of no more than  
12 6 percent as indicated on the pesticide product  
13 label.

14 The second listing occurs at Section  
15 205.601(I) as number eight, peracetic acid for use  
16 to control fire blight bacteria. Also permitted  
17 in hydrogen peroxide formulations as allowed in  
18 Section 205.601(I) at concentration of no more than  
19 6 percent as indicated on the pesticide product  
20 label. Thanks.

21 MEMBER AUSTIN: Thanks, Lisa.  
22 Peracetic acid is a pretty straightforward

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1 material. It's made from and decomposes back to  
2 acetic acid, oxygen and water.

3 It is a very strong oxidizing agent.  
4 This substance was first developed in 1950.  
5 Historically it's been used to treat fruits,  
6 vegetables to help reduce the spoilage from  
7 bacteria and various fungi.

8 As it was mentioned for crop production  
9 it's got several different uses as far as  
10 disinfecting equipment, seed, asexual propagated  
11 plant material.

12 It is allowed and permitted in hydrogen  
13 peroxide formulations that are to see a  
14 concentration of no more than 6 percent.

15 It's also used in fire blight control  
16 in tree fruit such as apples and pears.

17 One of the things I'll point out is that  
18 under a recommendation for the 2013 sunset review  
19 that took place in December of 2011 for this  
20 material under the two crop listings there was an  
21 annotation change adding the percentage, the  
22 recommended to permit hydrogen peroxide use in

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1 formulations of concentrations of no more than 5  
2 percent.

3 That 5 percent recommendation was later  
4 changed to 6 percent when this was listed based off  
5 of information that was provided during public  
6 testimony via written and also oral testimony at  
7 that time. So I just wanted to add a little bit  
8 of clarification on that.

9 We did ask a question out to the  
10 stakeholder groups for public comment back if that  
11 change from 5 percent to 6 percent would have any  
12 cause for concern or issues that they could  
13 foresee.

14 Nobody thought that that was an issue.  
15 In fact, we got a couple that asked why do we even  
16 have the 5 percent as part of the annotation. But  
17 I just wanted to put a little clarification onto  
18 that.

19 We did get 29 specific written comments  
20 back, plus we had two comments on the webinar and  
21 multiple at the in-person testimony that we've  
22 heard this week.

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1           Those opposed, a couple of the advocacy  
2 groups raised concerns about the forms of peracetic  
3 acid that were allowed. This was due to the TR that  
4 we got back which I will mention we received after  
5 we had already submitted our meeting one posting  
6 material. So we had not yet had a chance to review  
7 the TR and put that additional information into the  
8 document which we will do for the fall meeting.

9           To address that concern though a little  
10 bit, part of the confusion there is due to the TR  
11 identifying the FDA sanitation solutions a number  
12 of which do contain peracetic acid in other  
13 chemicals.

14           This does not impact us under this  
15 current NOSB sunset review of this material that's  
16 currently underway because we are only reviewing  
17 peracetic acid as a single substance, and there is  
18 no restriction on the manufacturer source.

19           It should also be duly noted that not  
20 all of the FDA solutions are suitable for use in  
21 organic production for use in direct contact with  
22 the product.

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1           Those opposed were also calling for a  
2 TR as Harriet had mentioned previously on one of  
3 the other materials for a full review of all  
4 sanitizers and disinfectants by the NOP and the  
5 NOSB along with a use and/or allowed use  
6 assessment.

7           Essentiality is also called into  
8 question since there are other alternatives. That  
9 was brought into play by one public interest group.

10           Those supporting the relisting were  
11 several farmers, two public interest groups, three  
12 handlers, one manufacturer, four trade  
13 associations, three consultants. Three of those  
14 provided in support of it. One remained neutral.  
15 But all of them provided information as well as five  
16 certifiers provided comment.

17           There were several comments provided by  
18 industry that also said that their members still  
19 rely on peracetic acid, it's still an important  
20 tool in their crop production, as a good  
21 alternative to chlorine and as a major component  
22 of hydrogen peroxide which is becoming more

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1 important as a tool for use in fire blight control  
2 since we removed the antibiotics from use.

3 So, it's actually gained -- it looks  
4 like from public comment the importance and  
5 reliance upon this material has actually increased  
6 during this current sunset review.

7 Another comment was it's a key  
8 component of pathogen control for food safety and  
9 thus ultimately provides ultimate customers food  
10 safety protection because of its high oxidizer  
11 characteristics.

12 Compared to the alternatives this is a  
13 very benign material. One certifier shows that it  
14 has 84 of their clients have it listed on their  
15 organic systems plan. I'll be clear that that does  
16 not specifically mean that they use it, but that  
17 they request the possibility to have that material  
18 available if and when they do in fact have to have  
19 the use of it. Because as we all know we need to  
20 declare that up front rather than after the fact.

21 In response to the 6 percent annotation  
22 like I said, that was pretty much mixed emotions

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1 all over the place on that. We'll delve a little  
2 bit deeper into the weeds as we move forward on it  
3 this summer.

4 That's all I have. Open it up for  
5 questions.

6 MEMBER BEHAR: Are there ancillary  
7 ingredients, do you know?

8 MEMBER AUSTIN: Not that I'm aware of.  
9 But I haven't had time to really sift too far into  
10 the new TR that we got back either. I don't believe  
11 there will be, but we'll find out.

12 Any other questions? Zea, back to you.

13 MEMBER SONNABEND: Okay, thank you,  
14 Harold.

15 Next up, and I lost my place here, but  
16 it's the list 3 inerts. Lisa.

17 DR. BRINES: Thank you. This  
18 substance is included on the National List at  
19 Section 205.601(m) as synthetic inert ingredients  
20 as classified by the Environmental Protection  
21 Agency for use with non-synthetic substances or  
22 synthetic substances listed in this section and

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1 used as an active pesticide ingredient in  
2 accordance with any limitations on the use of such  
3 substances.

4 Under paragraph (m)(2) EPA lists three  
5 inerts of unknown toxicity for use only in passive  
6 pheromone dispensers. Thanks.

7 MEMBER SONNABEND: Thank you. Once  
8 the recommendation that we passed for an annotation  
9 change for the list 4 listing gets published and  
10 becomes a final rule this listing will be  
11 superseded because under the new inerts  
12 terminology the lists are changing to the current  
13 way the FIFRA and the EPA refers to them.

14 So, the list 3 inerts in pheromone traps  
15 are specifically cited with a different -- Emily,  
16 help me here. What's the clause called, the number  
17 called to the EPA regulations? It's just a CFR  
18 section that has to do with the EPA -- I'm blanking  
19 on the word -- tolerance exemptions.

20 Now, public comment. Relatively  
21 little public comment on this, but those who did  
22 comment mostly wanted a separate TR and a complete

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1 review of these.

2 We did request one probably a year ago  
3 now we did request one. This affects as far as we  
4 know for sure three substances which are anti-UV  
5 compounds that stay in the body of the pheromone  
6 dispenser, in the plastic to keep the pheromone  
7 from all dissipating at once and breaking down in  
8 the light, and do not get out into the environment  
9 themselves, but just help regulate the pheromone.

10 There might be a fourth item that we  
11 have never seen by a petition, but those three items  
12 were petitioned a long time ago and we do have those  
13 petitions posted on the website if anyone wants to  
14 review them. So it wouldn't have been that hard  
15 since at least we have disclosure which we don't  
16 on many inerts to do a TR on them.

17 However, that was not done by the  
18 department. I personally don't have concerns  
19 about these items. They are stationary and not  
20 released in the environment.

21 And banning them would ban pheromones  
22 which is not something we want to do in my opinion.

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1           But in any event that is where we stand  
2 on this. So this sunset review has to be completed  
3 because the new annotation change may not be  
4 published on time before this would take into  
5 effect.

6           But once that goes into effect this will  
7 be removed as a listing.

8           Questions? Harriet.

9           MEMBER BEHAR: Is there a way to change  
10 the annotation to just list those three items,  
11 instead of just saying list 3? Can we actually be  
12 clearer about what we are -- is that a significant  
13 change in sunset?

14           MEMBER SONNABEND: That's a  
15 significant change. That would have to be a  
16 separate proposal for an annotation change, which  
17 if this is just going to be superseded shortly after  
18 doesn't make an awful lot of sense. But you could  
19 propose it, I suppose.

20           Okay. And then we have one more  
21 sunset, calcium chloride. Lisa.

22           DR. BRINES: Thank you. This

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1 substance is included at Section 205.602 of the  
2 National List under Non-Synthetic Substances  
3 Prohibited for Use in Organic Crop Production.

4 It's listed under (c) as calcium  
5 chloride. Brine process is natural and prohibited  
6 for use except as a foliar spray to treat a  
7 physiological disorder associated with calcium  
8 uptake. Thanks.

9 MEMBER BECK: So, as Dr. Brines stated  
10 calcium chloride is listed at 205.602 as a  
11 non-synthetic substance prohibited for use in  
12 organic crop production.

13 And the annotation only allows use as  
14 a foliar spray to treat a physiological disorder  
15 associated with calcium uptake.

16 Calcium chloride continues to be  
17 inappropriate for direct soil application given  
18 its high chloride content and high solubility.

19 Various factors contribute to the  
20 inadequate uptake of calcium which necessitates  
21 its continued allowance as a foliar spray.

22 Written public comments supported the

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1 relisting of calcium chloride.

2 The subcommittee did not ask any  
3 questions of the public and has no concerns  
4 regarding the continued listing of calcium  
5 chloride.

6 MEMBER SONNABEND: Questions?  
7 Comments? Okay. So, we will come back with  
8 proposals for all these at the fall meeting.

9 Now, we move on to the proposal for ash  
10 from manure burning. Lisa.

11 DR. BRINES: Thank you. This petition  
12 was submitted by EnergyWorks BioPower, LLC on  
13 August 22, 2014.

14 The petition was subsequently updated  
15 on October 9, 2014.

16 It addresses the current listing of ash  
17 from manure burning on Section 205.602 of the  
18 National List, Non-Synthetic Substances  
19 Prohibited for Use in Organic Crop Production.

20 The current listing reads ash from  
21 manure burning. They're looking for an annotation  
22 change.

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1           In support of the review no technical  
2 report was requested and this is the first NOSB  
3 meeting for this agenda item. Thank you.

4           MEMBER BECK:       In their petition  
5 EnergyWorks BioPower explained that their facility  
6 could extract greater than 30 tons of minerals from  
7 240 tons of egg-layer poultry manure daily using  
8 a staged thermochemical reactor.

9           Their petition annotation rationale  
10 included, one, a suggestion that the extraction of  
11 minerals by controlled combustion would preserve  
12 their non-synthetic nature, and two, would allow  
13 organic growers to derive increased value from  
14 manure as a nutrient resource.

15           Poultry manure is sourced from  
16 concentrated animal feeding operations.

17           The petitioner described benefits of  
18 annotation approval including, one, generation of  
19 renewable electricity, two, prevention of excess  
20 nutrients in the environment, and three, the  
21 increased development of similar commercial  
22 processing facilities throughout the U.S.

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1           Although these benefits could sound  
2 promising, utilizing burning as a method to recycle  
3 millions of pounds of excess poultry manure  
4 inadvertently supports the business of  
5 concentrated animal feeding operations by creating  
6 an organic industry demand for ash.

7           Ash from manure burning was originally  
8 placed on 205.602 based on its incompatibility with  
9 organic production.

10           Burning removes carbon and nitrogen  
11 from the final ash product and lessens its  
12 soil-building value.

13           Not only does the material fail OFPA  
14 criteria but also utilizing ash from manure burning  
15 in order to assist concentrated animal feeding  
16 operations in the reduction of environmental and  
17 human health contamination is not a compelling for  
18 consideration for addition to the National List.

19           Public commenters unanimously  
20 supported the subcommittee proposal to reject the  
21 petitioned annotation.

22           MEMBER           SONNABEND:           Comments?

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1 Questions? Okay, so no discussion, it appears,  
2 but the motion is on the floor as it came from  
3 committee made by Carmela and seconded by Colehour  
4 before he left the Board.

5 CHAIR FAVRE: Okay, I believe we're  
6 going to start the vote with Harriet if I'm correct.  
7 Is that right? Aren't we starting the vote with  
8 Harriet?

9 MEMBER SONNABEND: I don't think  
10 there's any discussion.

11 CHAIR FAVRE: Okay. Ready to start  
12 the vote. We're starting with Harriet.

13 MEMBER BEHAR: I just wanted to say one  
14 thing, that I support not adding this to the  
15 National List. So it's a no. So the vote is no.

16 MEMBER SONNABEND: No.

17 MEMBER RICE: No.

18 MEMBER OAKLEY: No.

19 MEMBER THICKE: No.

20 MEMBER AUSTIN: No.

21 MEMBER BUIE: No.

22 MEMBER BECK: No.

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1 MEMBER SWAFFAR: No.

2 MEMBER ROMERO-BRIONES: No.

3 MEMBER DE LIMA: No.

4 VICE CHAIR CHAPMAN: No.

5 MEMBER SEITZ: No.

6 MEMBER RICHARDSON: No.

7 CHAIR FAVRE: The chair votes no.

8 MEMBER DE LIMA: Zero yes, 15 no. The  
9 motion fails.

10 MEMBER SONNABEND: Thank you. Next is  
11 petition material squid and squid byproducts.  
12 Lisa.

13 DR. BRINES: Thank you. The petition  
14 for squid and squid byproducts was submitted by  
15 Shoreside Organics, LLC, on April 28, 2015. There  
16 was an amendment to the petition made on October  
17 1, 2015, and both that petition and amendment are  
18 posted individually on the National Organic  
19 Program website.

20 The petition requests the addition of  
21 squid and squid byproducts to Section 205.601 of  
22 the National List as a fertilizer.

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1           In support of its review the Crops  
2 Subcommittee did request the development of a  
3 technical report, and that report was developed and  
4 posted on the NOP website in 2016.

5           This is the first meeting at which the  
6 petition for squid and squid byproducts has been  
7 taken up by the NOSB. Thanks.

8           MEMBER BECK: Okay. The petition from  
9 Shoreside Organics for the addition of squid and  
10 squid byproducts to the National List stated that  
11 52 percent of the total squid body weight is  
12 discarded as waste.

13           This waste is typically generated from  
14 calamari food processing.

15           The petitioner has identified an  
16 opportunity to divert this waste from landfills and  
17 utilize it as a fertilizer for use in organic  
18 production similar to how liquid fish products are  
19 currently utilized.

20           The Crops Subcommittee motion listing  
21 included squid and squid byproducts. The  
22 inclusion of squid in the motion was not intended

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1 to allow the harvesting of whole squid for the sole  
2 purpose of manufacturing an organic fertilizer.

3 Both the subcommittee and the Shoreside  
4 Organics Company representative who provided  
5 in-person public comment included squid in the  
6 listing motion specifically to be inclusive of the  
7 occasional whole squid that could potentially make  
8 it into the squid byproduct processing line for  
9 various reasons including spoiled squid that was  
10 no longer suitable for human consumption, or due  
11 to an accidental or inadvertent whole squid that  
12 snuck in.

13 Despite our intentions to limit the  
14 motion to squid byproducts from food processing the  
15 majority of public commenter requested the removal  
16 of squid from the listing motion to ensure that  
17 whole squid would not be harvested solely for use  
18 in fertilizers.

19 These commenters indicated that they  
20 would support the listing motion if it was limited  
21 to squid byproducts.

22 Additionally, a few commenters raised

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1 concerns about environmental harm, worker health  
2 and heavy metal contamination.

3 Note that U.S. fisheries for squid on  
4 both coasts are managed to keep harvests at a level  
5 that ensure future abundance and sustainable  
6 operation of the fishery.

7 Less information is known regarding  
8 international fisheries.

9 Despite this enforcement the Monterey  
10 Bay Aquarium Seafood Watch website does explain  
11 that the main fishing gear used in the shortfin and  
12 longfin squid fisheries in the U.S. Mid-Atlantic  
13 region is bottom trawl which results in the bycatch  
14 of a relatively low number of loggerhead sea  
15 turtles whose populations have been in decline over  
16 the last few years.

17 The category achieved was good  
18 alternative.

19 With regards to worker health while the  
20 NOSB members are deeply concerned with worker  
21 rights, their protection falls under the purview  
22 of other governmental agencies and cannot be

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1 required or enforced by the National Organic  
2 Program.

3 Lastly, heavy metal contamination is  
4 minimal. Note that the squid fertilizer heavy  
5 metal contamination analysis provided by Shoreside  
6 Organics demonstrated minute and lower heavy metal  
7 contamination levels when compared to similar  
8 organically approved fish-based products.

9 Because of the public's feedback we are  
10 proposing splitting the existing listing motion  
11 into two motions in order to vote down the motion  
12 for whole squid and to vote on the motion for squid  
13 byproducts.

14 MEMBER SONNABEND: Okay. So, are you  
15 proposing that as an amendment or a change to the  
16 motion that came forward? Is it a motion to  
17 divide?

18 VICE CHAIR CHAPMAN: It will be, but we  
19 have to do the classification first.

20 MEMBER SONNABEND: Okay, so we're  
21 going to vote classification first and then decide  
22 how to handle it.

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1           VICE CHAIR CHAPMAN:    Yes, we can  
2 discuss.  Vote classification, divide, and then  
3 vote on the two.

4           MEMBER SONNABEND:   Okay.  So, then the  
5 motion is on the table from subcommittee to  
6 classify squid and squid byproducts as synthetic.  
7 Motion by Carmela and seconded by me, Zea.

8           MS. BROWN ROSEN:     Zea, we would  
9 appreciate it if you would put the whole annotation  
10 on there because it sounds like you're just  
11 classifying squid by themselves as synthetic.  But  
12 it's really synthetic when it's -- pH adjusted with  
13 sulfuric citric or phosphoric acid.  You need to  
14 put that in there too would be helpful.

15          MEMBER SONNABEND:   Okay.  It just  
16 doesn't say that in what came out of committee.

17                                So, well then is it a change to the  
18 motion so we have to take it back?

19          MS. BROWN ROSEN:     No, no, it's a  
20 non-substantive change.

21          VICE CHAIR CHAPMAN:   I'll move to amend  
22 the classification motion to read squid and squid

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1 byproducts pH adjusted with sulfuric, citric and  
2 phosphoric acid as synthetic.

3 MEMBER SONNABEND: Okay. So Carmela,  
4 do you accept the amendment?

5 MEMBER BECK: Yes.

6 MEMBER SONNABEND: And I, the second  
7 accept it. So is that all we have to do now to vote?

8 CHAIR FAVRE: We have to vote on the  
9 amendment.

10 MEMBER SONNABEND: Okay. So, we're  
11 going to vote -- are we roll calling it?

12 CHAIR FAVRE: Yes.

13 MEMBER SONNABEND: Okay. We'll vote  
14 on the amendment now.

15 CHAIR FAVRE: Okay, so we're clear to  
16 everybody there's been an amendment to the  
17 classification motion to make it clear that we are  
18 saying that the byproducts include the pH  
19 adjustment chemicals which the motion was just  
20 read. So everybody's clear on that we're going to  
21 vote on that amended motion.

22 And then once that's voted on then we

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1 have to vote on the main motion. Okay? Yes,  
2 Scott?

3 MEMBER RICE: Do we need to clarify the  
4 amount of acid used shall not exceed?

5 MEMBER SONNABEND: That's not part of  
6 the classification because any amount is -- it's  
7 part of the annotation for the motion.

8 CHAIR FAVRE: Yes, this is the  
9 classification motion just so everybody's clear,  
10 okay? I know it gets a little confusing.

11 All right, we'll start the vote with  
12 Zea.

13 MEMBER SONNABEND: Yes.

14 MEMBER RICE: Yes.

15 MEMBER OAKLEY: Yes.

16 MEMBER THICKE: Yes.

17 MEMBER AUSTIN: Yes.

18 MEMBER BUIE: Yes.

19 MEMBER BECK: Yes.

20 MEMBER SWAFFAR: Yes.

21 MEMBER ROMERO-BRIONES: Yes.

22 MEMBER DE LIMA: Yes.

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1 VICE CHAIR CHAPMAN: Yes.

2 MEMBER SEITZ: Yes.

3 MEMBER RICHARDSON: Yes.

4 MEMBER BEHAR: Yes.

5 CHAIR FAVRE: Sorry, the chair votes  
6 yes.

7 MEMBER DE LIMA: Fifteen yes, zero no.  
8 The motion passes.

9 MEMBER SONNABEND: So now are we going  
10 to entertain a different motion?

11 CHAIR FAVRE: Now we're voting on the  
12 motion itself. The classification motion.

13 MEMBER SONNABEND: We put that on the  
14 table then, the motion from subcommittee to list  
15 squid and --

16 CHAIR FAVRE: No, this is the  
17 classification.

18 MEMBER SONNABEND: We just voted on the  
19 amendment, not on the --

20 CHAIR FAVRE: That's right. We voted  
21 on approving the rights of the Board to amend.  
22 It's like nested Russian dolls, a motion within a

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1 motion.

2 So now we are voting on the motion  
3 itself for classification. The last vote was to  
4 approve the Board to allow the amendment to the  
5 classification motion if everybody followed that.

6 So, is everybody clear? We're voting  
7 on the motion for classification now as amended.  
8 Okay, we'll start the vote with Scott.

9 MEMBER RICE: Yes.

10 MEMBER OAKLEY: Yes.

11 MEMBER THICKE: Yes.

12 MEMBER AUSTIN: Yes.

13 MEMBER BUIE: Yes.

14 MEMBER BECK: Yes.

15 MEMBER SWAFFAR: Yes.

16 MEMBER ROMERO-BRIONES: Yes.

17 MEMBER DE LIMA: Yes.

18 VICE CHAIR CHAPMAN: Yes.

19 MEMBER SEITZ: Yes.

20 MEMBER RICHARDSON: Yes.

21 MEMBER BEHAR: Yes.

22 MEMBER SONNABEND: Yes.

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1 CHAIR FAVRE: The chair votes yes.

2 MEMBER DE LIMA: Fifteen yes, zero no.

3 The motion passes.

4 MEMBER SONNABEND: Now what do we do?

5 CHAIR FAVRE: Now we have the listing  
6 motion.

7 VICE CHAIR CHAPMAN: Do we want to  
8 discuss? Or I can just make the motion to divide  
9 it.

10 MEMBER SONNABEND: Well, yes, I guess.  
11 Can we discuss before we put a motion on the floor  
12 though?

13 VICE CHAIR CHAPMAN: Yes. I mean,  
14 we're now at the listing motion. We can discuss  
15 the listing motion. We can divide it and then  
16 discuss.

17 MEMBER SONNABEND: Okay, so let's  
18 discuss the listing motion then. We'll take  
19 discussion. Tracy.

20 CHAIR FAVRE: I just want to make sure  
21 we're clear that if we take squid off as we heard  
22 in public testimony this week this would allow for

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1        what I'll call as cold squid that might either for  
2        whatever reason end up in the byproducts pile  
3        because it's maybe been dropped on the floor, or  
4        it was too small, or it wasn't appropriate for human  
5        consumption.

6                    He listed it with squid and squid  
7        byproducts because he was afraid that there would  
8        be an interpretation that if there were any whole  
9        squid he would be in violation and he didn't want  
10       that to happen. So I want to make sure we're clear  
11       on that.

12                    MEMBER SONNABEND:    Jean.    And then  
13       I'll call on myself.

14                    MEMBER RICHARDSON:    I was impressed  
15       with his presentation in general that it's a great  
16       way to deal with the squid byproducts.

17                    But for me I don't need to divide the  
18       motion, I'll vote against both of them. I don't  
19       -- once again we've got a product which we're adding  
20       to the National List at a time when it takes  
21       two-thirds to get it on and two-thirds to get it  
22       off.

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1                   And I really don't want to be part of  
2 fishing down the food web as an environmentalist  
3 as a consumer because I think once we start, as we  
4 all know, that when one type of fish is no longer  
5 plentiful fishermen just move on to the next  
6 species. We've seen it many times in our  
7 lifetimes.

8                   So once there's no tuna, no cod or  
9 whatever it might be then we go down to the crabs,  
10 the sardines, et cetera.

11                   And so this fishing down the food web  
12 has a negative impact on the lower level species  
13 which play an important role in all the other fish  
14 in that marine ecosystem as well as the sea animals  
15 and marine mammals that feed on them.

16                   And so I don't mind whether you -- I'll  
17 vote against both.

18                   MEMBER SONNABEND: I called on myself  
19 next so then I'll take Francis and then Tom. Or  
20 whoever had their hand up.

21                   In answer to the question about is it  
22 clear that we only intend it to be squid that is

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1 in the processing waste stream from processing and  
2 not any that is caught specifically for fertilizer  
3 use.

4 I think we can make that distinction in  
5 the cover sheet that goes with the recommendation  
6 that we understand there may be the occasional  
7 whole squid in the waste stream.

8 And I think that will be clear to the  
9 department then that squid byproducts from  
10 processing.

11 I mean, it's just like you process  
12 carrots and a whole carrot might slip through in  
13 your carrot hummus. It's no different than any  
14 other sort of food processing in that way.

15 So now Francis.

16 MEMBER THICKE: Two comments. First  
17 of all, I'm sympathetic to what Jean said.  
18 However, I'm not convinced that if you don't take  
19 care of the waste and dump it in a landfill that  
20 you're going to really reduce the squid fishing.  
21 So I'm going to -- although I'm sympathetic with  
22 what you're saying I'm going to vote the other way.

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1           The other thing though on the  
2 procedure. If we split it in two motions why don't  
3 we just amend it and take squid out. Because if  
4 we split it in two motions we vote down that you  
5 can't use squid, then is that going to mean that  
6 if you get some squid in your byproducts you can't  
7 use it?

8           VICE CHAIR CHAPMAN: Yes, that's a good  
9 suggestion.

10           MEMBER THICKE: Can we just amend the  
11 motion and just take squid out and just have  
12 byproducts only?

13           VICE CHAIR CHAPMAN: I think so. Is  
14 that significant according to the program?

15           MEMBER SONNABEND: There was some  
16 concern that since that's not how it was petitioned  
17 that we would be changing the petition.

18           So we had asked Emily actually to  
19 clarify that. And maybe the department still can,  
20 what the distinction is between just amending it  
21 versus splitting.

22           DR. BRINES: All right, I'll take a

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1 stab at that one.

2 I think the intent of the petitioner to  
3 include squid and squid byproducts, my  
4 understanding is the impact of the amendment that  
5 you're proposing would still allow everything that  
6 was requested by the petitioner in that the intent  
7 wasn't to harvest squid specifically for use as a  
8 fertilizer.

9 So it doesn't seem like it would be a  
10 substantive change to the proposal given that you  
11 would still be allowing the product that the  
12 petitioner has requested.

13 I'm looking to Emily or Miles for nods  
14 on that. Thank you.

15 VICE CHAIR CHAPMAN: So, I move to  
16 amend the listing motion to strike the words "squid  
17 and."

18 MEMBER AUSTIN: Second that.

19 MEMBER SONNABEND: Okay, so Tom moved  
20 and Harold seconded. And we have to ask if that's  
21 agreeable to the original motion makers, right?  
22 No, you don't have to do that? Okay.

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1                   So, then we have to vote on the  
2 amendment, and then we vote on the listing.

3                   VICE CHAIR CHAPMAN: Yes, you can  
4 discuss both the amendment and the listing still.

5                   MEMBER SONNABEND: Okay. So is there  
6 any more discussion before we move to vote on the  
7 amendment? Harriet.

8                   MEMBER BEHAR: So, Jean told me I was  
9 naive but I think that allowing the use of this  
10 byproduct would actually provide another income  
11 stream for producers that would maybe even lessen  
12 the harvest of squid because they'd be able to make  
13 a little bit more money.

14                  MEMBER RICHARDSON: That's not a  
15 criteria.

16                  MEMBER BEHAR: No, but the disposal of  
17 the squid byproducts into the ocean does have a  
18 negative effect on the marine environment. And so  
19 that's another reason why I support the byproducts  
20 being used in a more positive way.

21                  MEMBER SONNABEND: And that is a  
22 criteria. Emily.

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1                   MEMBER OAKLEY: I pushed for removing  
2 whole squid and just listing squid byproducts to  
3 try to address the concerns, but thanks to Jean's  
4 brave comments I actually feel that I'm in  
5 concurrence with Jean on this.

6                   Because even though it's farmers like  
7 myself who would be likely to use this product I  
8 feel that we have many alternatives.

9                   And I don't want organic farmers to  
10 contribute to sea degradation.

11                   MEMBER SONNABEND: Tracy and then I'm  
12 calling on myself. And Ashley, did you have your  
13 hand up? Lisa had her hand up.

14                   CHAIR FAVRE: Okay, I initially  
15 intended to vote against this for the reasons that  
16 Jean had stated.

17                   But after talking it over with some  
18 Board members and thinking it through a little bit  
19 I feel like the potential impact of dumping it in  
20 landfills or in the ocean has a pretty negative  
21 impact.

22                   And I think closing the loop. It seems

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1 to me if the byproduct is already made, and the  
2 waste stream already exists that not allowing it  
3 and so therefore potentially impacting the  
4 environment negatively because we don't allow it  
5 doesn't make a whole lot of sense.

6 And if you think about the way a  
7 forefather might have done it and a farmer out in  
8 the middle of nowhere and you had a squid wash up,  
9 they're not going to say oh, I've got to put this  
10 in the trash. They're going to stick it in their  
11 field somewhere.

12 So, maybe that is naive. She's nodding  
13 her head yes for those of you who can't see her.

14 But I feel like if we've got a resource  
15 it seems wasteful to not avail ourselves of it as  
16 long as we're not creating an additional or  
17 increasing the waste stream.

18 And I don't think by allowing the  
19 byproducts themselves that is an incentive for  
20 anybody to go out and harvest squid.

21 If the squid was not being harvested  
22 already I would say let's not allow this, but it

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1 is. So I'm going to vote in favor it. Sorry,  
2 Jean.

3 MEMBER SONNABEND: Lisa and me and then  
4 Ashley.

5 MEMBER DE LIMA: I'm voting against it.  
6 I'm with Jean and Emily. I just, I can't get my  
7 head wrapped around -- as soon as I saw that this  
8 was a petition I started looking through Monterey  
9 Bay.

10 And I know in the summary we talked  
11 about well managed fisheries and them being yellow  
12 rated by Monterey Bay. But that's just two  
13 fisheries that are domestic to the U.S.

14 All the other fisheries are just all  
15 other species of squid throughout the world are  
16 rated red. And those are for environmental  
17 concerns, not necessarily labor concerns.

18 And so every single one of these species  
19 that's fished, there's no green rated squid  
20 anywhere on the Monterey Bay reports that I've  
21 combed through.

22 So I kind of understand the argument

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1 that we're recycling this waste, but we're  
2 recycling waste from a byproduct of an industry  
3 that's environmentally not sound. So I can't vote  
4 for it.

5 MEMBER SONNABEND: Okay, I'm calling  
6 on myself next, then Ashley, then Tom.

7 I would just like to point out one of  
8 our other criteria which is the alternatives and  
9 the availability and effectiveness of  
10 alternatives.

11 When we first put fish products on the  
12 National List almost all the fish was byproduct  
13 fish from processing for food.

14 But over time as fish became more and  
15 more widely used in animal feed, and more and more  
16 people went organic, and more fertilizer was needed  
17 the fish started getting caught for just the  
18 purpose of those other uses.

19 And by using the already waste resource  
20 of squid we are reducing the impact of overfishing  
21 on the same environment. So to me that is one of  
22 the criteria that would make me vote yes in favor

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1 of the squid byproduct.

2 So Ashley was next and then Tom.

3 MEMBER SWAFFAR: So I too am concerned  
4 like Jean is of overfishing, but I think back to  
5 what the commenter said yesterday who was the  
6 petitioner is these people who are fishing --  
7 whatever you call it. When they're squidding for  
8 human consumption they're getting a dollar plus a  
9 pound, but for fertilizer they would be getting  
10 pennies. So I don't see that they would actually  
11 be squidding just for fertilizer. I really don't  
12 think that's going to happen.

13 So I really think that this solves an  
14 environmental issue with byproducts going to the  
15 landfill or back into the ocean. So I think this  
16 is a good substance for organic farmers that we  
17 could be using.

18 MEMBER SONNABEND: Tom was next, then  
19 A-dae.

20 VICE CHAIR CHAPMAN: My comments  
21 somewhat follow what Zea said, but I just wanted  
22 to remind the Board that we did just relist liquid

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1 fish products which have all the same environmental  
2 issues here by a vote of 14 to 1.

3 So just keep that in mind if you're on  
4 the Board when liquid fish products come back up  
5 on the list. But consistency in how we interpret  
6 these things I think is important.

7 MEMBER SONNABEND: A-dae and then  
8 Lisa.

9 MEMBER ROMERO-BRIONES: So, I come  
10 from -- I love on an island where the majority of  
11 the population are sustainable fishermen or  
12 hunters.

13 And we've seen this time and time again.  
14 When you create an economy for a certain product  
15 from the ocean it inevitably changes the way that  
16 resource is viewed within the community that has  
17 used it over generations upon generations.

18 So, on one hand I understand the need  
19 to create economic incentives for fishermen like  
20 those of Lanai, but on the other hand there's a need  
21 to protect that community that includes the  
22 fishermen and those resources that come from the

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1 ocean.

2 And that weighs more heavily on my heart  
3 than anything. So I would vote against this.

4 MEMBER DE LIMA: Just to Tom's point  
5 about consistency, I mean I would just point out  
6 that when we voted the fish materials to relist them  
7 that was a sunset material and this is a petitioned  
8 material.

9 And so, I don't have any problem with  
10 not voting for this. It's not a consistency issue  
11 for me because we're adding to the problem.  
12 Because I think the fish use is problematic too.  
13 I just don't want to add to that.

14 MEMBER SONNABEND: So I think we're  
15 ready to move to vote on the amendment first and  
16 then on the motion.

17 CHAIR FAVRE: Right.

18 VICE CHAIR CHAPMAN: Yes, the vote on  
19 the amendment which is to strike the words "and  
20 squid."

21 MEMBER SONNABEND: Should I read the --

22 VICE CHAIR CHAPMAN: It's to vote on

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1 the amendment which strikes the words "squid and."

2 MEMBER SONNABEND: Should we read the  
3 whole thing without it? Or we will before we have  
4 the next vote.

5 CHAIR FAVRE: Okay, so is everybody  
6 clear? We're doing the machinations like last  
7 time. We're amending the motion. We're voting on  
8 whether we can amend the motion first.

9 So the motion before the Board is are  
10 you in agreement with striking "squid and" from the  
11 listing motion.

12 MEMBER SONNABEND: Well, can I just --

13 CHAIR FAVRE: Yes, go ahead.

14 MEMBER SONNABEND: Those of you who are  
15 opposed to this, if you don't for this amendment  
16 and the rest of it goes through you're shooting  
17 yourself in the foot. So you would want to vote  
18 for this amendment and then against the second  
19 motion.

20 CHAIR FAVRE: That's right. All  
21 right, just so we're clear. All right, so we're  
22 going to start the vote with Emily.

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1 MEMBER OAKLEY: Yes.  
2 MEMBER THICKE: Yes.  
3 MEMBER AUSTIN: Yes.  
4 MEMBER BUIE: Yes.  
5 MEMBER BECK: Yes.  
6 MEMBER SWAFFAR: Yes.  
7 MEMBER ROMERO-BRIONES: Yes.  
8 MEMBER DE LIMA: Yes.  
9 VICE CHAIR CHAPMAN: Yes.  
10 MEMBER SEITZ: Yes.  
11 MEMBER RICHARDSON: Yes.  
12 MEMBER BEHAR: Yes.  
13 MEMBER SONNABEND: Yes.  
14 MEMBER RICE: Yes.  
15 CHAIR FAVRE: The chair votes yes.  
16 MEMBER DE LIMA: Fifteen yes, zero no.  
17 The motion passes.  
18 CHAIR FAVRE: Okay.  
19 MEMBER SONNABEND: So the motion that  
20 we are voting on now is to list squid byproducts  
21 at 205.601(j) of the National List with the  
22 annotation can be pH adjusted with sulfuric, citric

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1 or phosphoric acid.

2 The amount of acid used shall not exceed  
3 the minimum needed to lower the pH to 3.5.

4 And that was moved -- well, which first  
5 and second stands for the motion? Out of  
6 subcommittee? Moved by Carmela and seconded by  
7 myself, Zea.

8 CHAIR FAVRE: Okay. So now we're  
9 voting on the amended motion to list. And we're  
10 going to start with Francis.

11 MEMBER THICKE: Yes.

12 MEMBER AUSTIN: Yes.

13 MEMBER BUIE: Yes.

14 MEMBER BECK: Yes.

15 MEMBER SWAFFAR: Yes.

16 MEMBER ROMERO-BRIONES: No.

17 MEMBER DE LIMA: No.

18 CHAIR FAVRE: Yes.

19 VICE CHAIR CHAPMAN: Yes.

20 MEMBER SEITZ: Yes.

21 MEMBER RICHARDSON: No.

22 MEMBER BEHAR: Yes.

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1 MEMBER SONNABEND: Yes.

2 MEMBER RICE: Yes.

3 MEMBER OAKLEY: No.

4 MEMBER DE LIMA: That's 11 yes, 4 no.

5 The motion passes.

6 MEMBER SONNABEND: Thank you. Now  
7 we're moving onto hypochlorous acid. Lisa.

8 DR. BRINES: Thank you. The petition  
9 for hypochlorous acid is the same information that  
10 was read earlier into the record this morning.

11 So at this point we'll be considering  
12 the motion to add it to Section 205.601 of the  
13 National List for crop production uses. Thank  
14 you.

15 MEMBER SONNABEND: Harold.

16 MEMBER AUSTIN: Okay. This is the  
17 third of the three proposed listings throughout the  
18 subcommittees for hypochlorous acid.

19 For this particular use for the Crops  
20 Subcommittee the material was petitioned for use  
21 as a post-harvest sanitizer for use on raw herbs  
22 and spice materials no less than 60 parts per

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1 million and as an equipment and cold room sanitizer  
2 at less than 200 ppm.

3 I think that's probably all we really  
4 need to go over on this at this point. If there's  
5 any questions. Zea?

6 MEMBER SONNABEND: Well, I just wonder  
7 about the value of having to have votes to classify  
8 it as synthetic in all the committees. It seems  
9 like once is enough but we have to. Twice so far,  
10 but all right.

11 MEMBER AUSTIN: Okay. Before we go  
12 into the voting I would make one clarifying point  
13 though is that we did hear comments back of another  
14 use by producers for electrolyzed water that  
15 they've been using in conventional farming for  
16 mildew control and other disease and pathogen  
17 control.

18 And that would be a use, an application  
19 that's outside of the scope of our review because  
20 that was not in the original petition as we're  
21 reviewing it right now.

22 So if they wanted that additional use

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1 we would have to bring that forward as a different  
2 consideration. Is that correct?

3 Okay. So I just wanted to put that into  
4 the record so that they understand that that  
5 additional use would have to come from -- they would  
6 have to petition us for that use. Francis.

7 MEMBER THICKE: But if you look at the  
8 listing it just says as an algicide disinfectant  
9 and sanitizer. Would that disallow that if  
10 they're going to sanitize surfaces? For cleaning.

11 MEMBER AUSTIN: Yes, because it would  
12 be being used as a pesticide because it would be  
13 fungicidal control. It would actually physically  
14 be applied to the tree.

15 MEMBER THICKE: Oh, I misunderstood  
16 you. Okay.

17 MEMBER AUSTIN: Okay. So, listing.  
18 We have a motion in front of the entire Board from  
19 the subcommittee to list this, classify this  
20 hypochlorous acid as a synthetic.

21 It came as a motion from the  
22 subcommittee by myself and seconded by Francis.

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1 CHAIR FAVRE: Okay, this is the  
2 classification motion and we will start the vote  
3 with Harold.

4 MEMBER AUSTIN: Yes.

5 MEMBER BUIE: Yes.

6 MEMBER BECK: Yes.

7 MEMBER SWAFFAR: Yes.

8 MEMBER ROMERO-BRIONES: Yes.

9 MEMBER DE LIMA: Yes.

10 VICE CHAIR CHAPMAN: Yes.

11 MEMBER SEITZ: Yes.

12 MEMBER RICHARDSON: Yes.

13 MEMBER BEHAR: Yes.

14 MEMBER SONNABEND: Yes.

15 MEMBER RICE: Yes.

16 MEMBER OAKLEY: Yes.

17 MEMBER THICKE: Yes.

18 CHAIR FAVRE: The chair votes yes.

19 MEMBER DE LIMA: Fifteen yes, zero no.

20 The motion passes.

21 MEMBER AUSTIN: Okay, so now for the  
22 listing motion. Tom?

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1                   VICE CHAIR CHAPMAN:  It's preferable  
2                   to have a listing motion that's the same across all  
3                   the subcommittees.  And to be explicit the  
4                   petition subcommittee review and the technical  
5                   review were all for hypochlorous acid generated via  
6                   electrolyzed water.

7                   Therefore I move to amend the petition  
8                   to read hypochlorous acid generated via  
9                   electrolyzed water as petitioned.

10                  MEMBER AUSTIN:  Second that.

11                  CHAIR FAVRE:  Okay, we have a motion  
12                  and a second.  I guess is there any discussion on  
13                  that beforehand?

14                  Okay, we'll begin the voting with  
15                  Jesse.

16                  MEMBER BUIE:  Yes.

17                  MEMBER BECK:  Yes.

18                  MEMBER SWAFFAR:  Yes.

19                  MEMBER ROMERO-BRIONES:  Yes.

20                  MEMBER DE LIMA:  Yes.

21                  VICE CHAIR CHAPMAN:  Yes.

22                  MEMBER SEITZ:  Yes.

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1 MEMBER RICHARDSON: Yes.

2 MEMBER BEHAR: Yes.

3 MEMBER SONNABEND: Yes.

4 MEMBER RICE: Yes.

5 MEMBER OAKLEY: Yes.

6 MEMBER THICKE: Yes.

7 MEMBER AUSTIN: Yes.

8 CHAIR FAVRE: The chair votes yes.

9 MEMBER DE LIMA: Fifteen yes, zero no.

10 The motion passes.

11 MEMBER SONNABEND: Okay, next up is soy  
12 wax. Lisa.

13 MEMBER AUSTIN: That was just a motion  
14 to amend. We still have the full motion to vote  
15 on.

16 CHAIR FAVRE: Okay. Now we have  
17 approved the right to amend the listing motion. So  
18 now we're voting on the main motion. Is there any  
19 discussion?

20 Okay, we will begin the vote with  
21 Carmela.

22 MEMBER BECK: Yes.

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1 MEMBER SWAFFAR: Yes.  
2 MEMBER ROMERO-BRIONES: Yes.  
3 MEMBER DE LIMA: Yes.  
4 VICE CHAIR CHAPMAN: Yes.  
5 MEMBER SEITZ: Yes.  
6 MEMBER RICHARDSON: Yes.  
7 MEMBER BEHAR: Yes.  
8 MEMBER SONNABEND: Yes.  
9 MEMBER RICE: Yes.  
10 MEMBER OAKLEY: Yes.  
11 MEMBER THICKE: Yes.  
12 MEMBER AUSTIN: Yes.  
13 MEMBER BUIE: Yes.  
14 CHAIR FAVRE: The chair votes yes.  
15 MEMBER DE LIMA: Fifteen yes, zero no.  
16 The motion passes.  
17 MEMBER SONNABEND: Okay, now soy wax.  
18 Lisa.  
19 DR. BRINES: Thank you. The petition  
20 for soy wax was submitted on September 30, 2015,  
21 by Beyond Pesticides.  
22 The petition requests the addition of

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1 soy wax to Section 205.601 of the National List for  
2 use in mushroom production.

3 There was no technical evaluation  
4 report completed for this petition substance and  
5 this is the first meeting where the petition is on  
6 the NOSB agenda. Thank you.

7 MEMBER THICKE: So, soy wax is intended  
8 to be used for the same purpose that now  
9 microcrystalline cheese wax is used for, and that's  
10 made from petroleum so this would be a more natural  
11 product.

12 It's made to plug the seal plugs and  
13 ends of logs where mushrooms are grown on.

14 Of course since it's made from a natural  
15 product it should be much more environmentally  
16 sound.

17 However, it is synthetic because it has  
18 to be hydrogenated. And so even if you had organic  
19 soybeans it still would be a synthetic product.

20 And so we made the annotation say that  
21 it has to be from non-GMO soybeans because even  
22 though it's an excluded method, GMOs, we wanted to

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1 put it in there anyhow. And we got comments that  
2 people thought that was a good idea.

3 Other comments. We got comments, one  
4 from a farmer saying that he preferred to have a  
5 non-petroleum based product. We didn't get  
6 anybody against it that I saw.

7 However, we heard that it seems that  
8 some of the mushroom producers are going away from  
9 using logs now and are using more sawdust and wood  
10 shavings. So maybe that would be phased out.  
11 Although they said some of the smaller producers  
12 are still using logs.

13 I think that about covers everything  
14 that I had to say. Any questions or comments?

15 MEMBER SONNABEND: There is an  
16 inconsistency, and I shouldn't have even let this  
17 go in, but if you actually look at the document  
18 under the listing motion it says "must be made from  
19 non-GMO soybeans," but then below it under proposed  
20 annotation, "must be made from non-GMO soybean oil"  
21 and those are not really the same thing.

22 MEMBER THICKE: It should be soybeans

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1 on the bottom.

2 MEMBER SONNABEND: And it did confuse  
3 some of the commenters I noticed.

4 So, we're voting on the motion the way  
5 it is listed, the way it is here in the first thing,  
6 but then we're going to change what it says there  
7 below. Tom.

8 VICE CHAIR CHAPMAN: Two questions. I  
9 was curious to know why a TR wasn't commissioned  
10 on this substance.

11 And then secondly, do we need a  
12 definition of non-GMO?

13 MEMBER THICKE: I'll answer the first  
14 one but not the second one.

15 Well, we felt that there was -- we  
16 didn't see any negative consequences from using  
17 something more natural. So we didn't see any need  
18 to go out and get a TR, to have the expense of a  
19 TR.

20 I couldn't see that there were  
21 unanswered questions. Do you have some in mind?

22 VICE CHAIR CHAPMAN: I mean, not in

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1 particular if the committee is satisfied with  
2 transparency into the manufacturing of this  
3 substance.

4 MEMBER THICKE: Yes, we felt that going  
5 from a petroleum-based product to a natural  
6 plant-based product was a good step, and didn't see  
7 any drawbacks to it.

8 VICE CHAIR CHAPMAN: Yes. I guess my  
9 question's around -- I understand that argument.  
10 That's clear and makes perfect sense.

11 I guess my question is did we fully  
12 evaluate the manufacturing of this substance  
13 though to make sure that we fully understand it and  
14 that there's no issues with this substance.

15 MEMBER THICKE: Well, it's basically  
16 hydrogenated which is kind of a common process.  
17 And so that's all that we went in looking at it.

18 MEMBER SONNABEND: The petition was  
19 complete enough in the manufacturing process.

20 VICE CHAIR CHAPMAN: Okay.

21 MEMBER THICKE: That's right. Thank  
22 you, Zea.

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1                   MEMBER BEHAR: I think we need more of  
2 a definition on what non-GMO soybean oil is rather  
3 than what is non-GMO soybeans.

4                   MEMBER SONNABEND: Why? Soybean oil  
5 is not in the definition.

6                   MEMBER BEHAR: Oh, I thought you were  
7 going to do that later. Oh, so that proposed  
8 annotation is not going to be even voted on or  
9 anything.

10                  Okay, great. Because I know what  
11 non-GMO soybeans are, but not what non-GMO soybean  
12 oil is.

13                  MEMBER SONNABEND: I'm going to just  
14 call on myself for a second. We have a proposed  
15 definition for non-GMO in the excluded methods  
16 terminology. And by the time this got turned into  
17 a rule that will be voted on in the fall. Which  
18 means it won't be a rule either, but that's probably  
19 as good as we're going to get.

20                  Okay. So, Tom? Oh, the NOP is waving  
21 at us so let's let them go first.

22                  DR. BRINES: Thank you, Zea. Just to

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1 follow up on Tom's question regarding whether we  
2 need to define the term "non-GMO."

3 I just want to remind the Board that  
4 they did have a similar intent with a previous  
5 recommendation on biodegradable biobased mulch  
6 film where the intent was to exclude feedstocks  
7 that were derived from GMO sources. So that was  
8 implemented that it must be produced without  
9 organisms or feedstocks derived from excluded  
10 methods. So for consistency with the rule that's  
11 usually the terminology we would implement.

12 I think the intent is clear from the  
13 proposal.

14 MEMBER SONNABEND: And that would not  
15 be a substantive change if we wanted to change that  
16 language now?

17 DR. BRINES: For purpose of  
18 interpretation of what your intent is I think it's  
19 clear either way. How that gets implemented in the  
20 regulatory language --

21 MEMBER SONNABEND: So you don't feel  
22 like it has to be changed to excluded methods, that

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1 if we say this it's clear? That it's an excluded  
2 method.

3 Okay, we'll proceed with Tom.

4 VICE CHAIR CHAPMAN: That was  
5 basically what I was going to ask, if it would make  
6 more sense to say must be made not utilizing  
7 excluded methods or whatever. Using the line we  
8 already have.

9 MEMBER DE LIMA: This might be a silly  
10 question. Why do we have to put the GMO part in  
11 there? Isn't it implied? I don't understand.

12 MEMBER SONNABEND: Francis.

13 MEMBER THICKE: We don't have to and we  
14 discussed that. Because it's an excluded method  
15 we didn't have to, but we put it in there just  
16 because.

17 Sometimes people, you know, they have  
18 to know that it's an excluded method. This way we  
19 make it clear.

20 And so I can understand which first,  
21 chicken and egg thing, you know. It's really GMOs  
22 that are excluded methods and so we thought non-GMO

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1 would be a more clear statement.

2 It isn't necessarily needed, but  
3 actually the commenter, a lot of people who  
4 commented thought it was a good idea as well to  
5 reiterate that.

6 MEMBER SONNABEND: Okay, so Harriet,  
7 then Tracy.

8 MEMBER BEHAR: So based on the biobased  
9 biodegradable plastic mulch should we state 100  
10 percent non-GMO soybeans?

11 MEMBER SONNABEND: Are you proposing  
12 that as an unfriendly amendment?

13 MEMBER BEHAR: I don't know if it's  
14 unfriendly. I just know that there has been a need  
15 for clarification or discussion because it seems  
16 like what happened with the biodegradable mulch was  
17 that there seems to be confusion about how much of  
18 a percentage needed to be --

19 MEMBER SONNABEND: But that's not GMO.  
20 That's --

21 MEMBER BEHAR: I know, but I'm just  
22 wondering when you read this could it be just 5

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1 percent non-GMO soybeans and that would still be  
2 okay? Or is our intention that all the soy wax must  
3 be from all non-GMO soybeans?

4 CHAIR FAVRE: Okay, so I think,  
5 Harriet, the confusion is the percent of biobased  
6 in the bioplastic mulch is where the percentage  
7 came in, not the percentage that was non-GMO first  
8 of all. That's my first point.

9 Second point is I hate to say this  
10 because I appreciate what the intent is, but it is  
11 a little bit in my opinion sloppy to have to include  
12 non-GMO in the annotation.

13 Because if we start that every single  
14 thing that is questionable we'd have to put from  
15 non-GMO sources. And that's redundant.

16 It's also confusing because it does  
17 sort of imply if we specify it here but we don't  
18 specify it elsewhere that it somehow might be  
19 allowed when we've already been battling the issue  
20 that organic is non-GMO but there's some that are  
21 not clear on that.

22 And I think that might be fostering that

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1 perception if we're not careful.

2 I would prefer to see it stricken from  
3 the annotation for that reason when we have  
4 overarching regulations that specify excluded  
5 methods are not allowed.

6 I think that's cleaner and I think  
7 that's a little bit tighter way to handle this.

8 MEMBER SONNABEND: I'm going to call on  
9 myself and then Harriet.

10 We purposely put it in the  
11 biodegradable mulch to be non-GMO for a couple of  
12 reasons.

13 One, it's a whole different product  
14 category for a different use and so we thought it  
15 was worth reemphasizing.

16 And two is in the absence of very  
17 completely clear guidance in how far back in the  
18 chain of foodstuffs or inputs you look for GMOs and  
19 some certifiers and for instance OMRI used decision  
20 tree structures which tend to say that some of the  
21 soil-based inputs if they don't have an expression  
22 of a GMO would be allowed.

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1                   And so we wanted to make extra clear for  
2 this new category and soil-based applied thing that  
3 it was GMO.

4                   I do not feel it's necessary here  
5 either. I didn't really want to have a big  
6 argument in the subcommittee that would look like  
7 we were in favor of GMOs if we voted that part out  
8 so we didn't pursue it.

9                   Harriet was next, then Tracy.

10                  MEMBER BEHAR: So it's specifically  
11 for that reason that various groups view -- so if  
12 it's a soybean oil it doesn't have the protein.  
13 And so if you go all over the internet it says  
14 non-GMO soy wax, but it actually is derived from  
15 GMO soybeans, but they're calling it non-GMO soy  
16 oil because the protein is not present in the final  
17 oil.

18                  So I think that's why the committee then  
19 said to not derive it from GMO soybeans.

20                  MEMBER SONNABEND: We realize that no  
21 products on the market meet this right now, right?

22                  MEMBER THICKE: That's a good thing,

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1 Harriet, that's why we did it. Because if it just  
2 said from -- if it didn't say it then you could have  
3 GMO soy oil because there aren't any GMOs in the  
4 soy oil. That I think was our reasoning.

5 MEMBER SONNABEND: Tracy?

6 CHAIR FAVRE: I was actually going to  
7 ask Francis, you made the statement earlier in this  
8 discussion that you didn't feel like it absolutely  
9 had to be in there, the statement about non-GMO.

10 And I'm sort of asking if that still  
11 holds in your mind.

12 MEMBER THICKE: Well, I think now after  
13 I remember why we did that. Because you could have  
14 oil derived from GMO soybeans and it would be  
15 non-GMO oil.

16 Because there's no protein in there.  
17 It's just oil, it's just a lipid. It's just an oil.  
18 So there's no GMOs in the oil.

19 MEMBER SONNABEND: But that doesn't  
20 matter. In our existing construct of excluded  
21 methods it doesn't matter if you detect it in the  
22 final product or not. It's a process-based

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1 approach.

2 And so in no case would an oil made from  
3 a GMO soybean be allowed in food production except  
4 if it was in a soil-applied thing according to OMRI  
5 which has never been officially adopted here.

6 MR. MCEVOY: I would say based on this  
7 discussion it would be very good to clarify that  
8 the soy wax is made from non-GMO soybeans.

9 Because you're talking about  
10 interpretations and this would make it very, very  
11 clear. From an enforcement perspective, from a  
12 certifier perspective we want the standards to be  
13 very, very clear. The way it's written currently  
14 is clear.

15 MEMBER SONNABEND: Okay, I think Jean  
16 is next and then Tom.

17 MEMBER RICHARDSON: But we use the word  
18 "excluded methods." I mean GMO isn't what we've  
19 been using.

20 I mean, I understand where you're  
21 coming from, Miles. I mean, I would agree with  
22 Tracy's initial comment there is that what we have

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1 in our books that we're working on is the phrase  
2 "excluded methods." We don't use the word GMO.

3 VICE CHAIR CHAPMAN: I want to pile on  
4 that one real quick.

5 When you say it makes it more clear are  
6 you looking only at the context of this listing?  
7 Does it potentially make the rest of the listings  
8 that don't say non-GMO less clear than in that case?

9 MR. MCEVOY: Yes, it makes this listing  
10 clear. The rest of the listings as Zea mentioned  
11 certifiers are using OMRI's decision tree for the  
12 most part and that goes back in different depths  
13 in terms of how far back in the chain you go.

14 So that's sort of a separate topic that  
15 probably this Board should take a look at, look at  
16 that decision tree, how far back do you go to  
17 clarify how far back you go with the non-use of  
18 excluded methods.

19 So, what we're saying is that non-GMO  
20 to us means excluded methods.

21 MEMBER SONNABEND: Miles, you wouldn't  
22 be adverse to say must be made from soybeans that

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1 were not produced with excluded methods?

2 MR. MCEVOY: No, we wouldn't. We  
3 would not. That would be clear as well.

4 MEMBER SONNABEND: Harriet.

5 MEMBER BEHAR: So I support this with  
6 what we just mentioned. Because as an organic  
7 inspector I visited many shiitake mushroom log  
8 producing operations and saw piles where logs have  
9 decomposed into the ground, and piles of petroleum  
10 cheese wax laying there where the wildlife could  
11 eat it, where it was not decomposing.

12 And so seeing all of that I really would  
13 like to have some type of biodegradable option for  
14 those growers just so that wax which is going to  
15 take decades or longer to decompose in the  
16 environment would instead be something that would  
17 rather than something that's not.

18 I realize they're both on the National  
19 List now, but at some point if we had this and it  
20 was truly an option, if we had -- so then the  
21 question is also are we replacing a petroleum-based  
22 product with then an excluded methods produced

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1 product. And that's why we decided to write it  
2 this way.

3 MEMBER RICE: I was going to bring up  
4 the OMRI decision tree prior to when it got out  
5 there.

6 But I think -- I would agree with some  
7 of the hesitation of including the non-GMO language  
8 or the excluded method language as it would point  
9 to a question mark around the things that aren't  
10 indicated as such.

11 With all due respect to the concern to  
12 keep GMOs out I think from a certification  
13 perspective we're using the decision tree and those  
14 would be -- the excluded would be excluded.

15 CHAIR FAVRE: So, are you supportive of  
16 removing the excluded language altogether? Is  
17 that what you're saying?

18 MEMBER RICE: It would seem by leaving  
19 it in it would point to the question mark around  
20 it not being in other areas.

21 MEMBER SONNABEND: Harold.

22 MEMBER AUSTIN: I would agree with the

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1 comments that Scott just made.

2 I think it's trending us down a path  
3 that could make it more confusing for the industry,  
4 the stakeholders and the certifiers.

5 I think it sets a precedent that is  
6 going to do nothing but add to the confusion as we  
7 look forward. We haven't done it on other  
8 materials and I'm afraid to get started down that  
9 path right now.

10 I would probably vote against it just  
11 because of the terminology that it's going to have  
12 in it.

13 MEMBER SONNABEND: Emily.

14 MEMBER OAKLEY: Well, I would just say  
15 that it's not only certifiers that look at these  
16 terms, it's farmers and -- well, especially  
17 farmers.

18 And I think they might not be looking  
19 at the OMRI decision tree. I know for myself as  
20 a farmer it would be helpful to have the non-GMO  
21 or excluded method terminology.

22 VICE CHAIR CHAPMAN: So, if you were a

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1 farmer and you were just looking at the list and  
2 you saw 14 listings that didn't say non-GMO and 1  
3 that did? I'm going to go right back to you.

4 MEMBER OAKLEY: I'm totally happy to  
5 answer that. I wouldn't be parsing through the  
6 entire list. Like, I would be going to look for  
7 exactly my material. That's what I do now.

8 I don't read through the whole thing.  
9 I'm looking for specifically what I want. And the  
10 more detail I have, the better I can make my  
11 decision.

12 MEMBER RICE: I can respect that  
13 perspective, but I would also offer that as a  
14 certified operation you'd have to add that to your  
15 materials list before you would use it. And that  
16 would in turn put the onus on the certifier to  
17 ensure that it's listed as approved material.

18 MEMBER OAKLEY: That's true. I would  
19 always contact my certifier before I would use it,  
20 but it's just another step that helps me make clear.

21 MEMBER RICHARDSON: So, just to see if  
22 it works I would make a motion to amend the listing

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1 motion that must be to delete the sentence that said  
2 "must be made from non-GMO soybeans."

3 MEMBER SONNABEND: Is there a second to  
4 that motion?

5 MEMBER DE LIMA: I'll second.

6 MEMBER SONNABEND: Who seconded?  
7 Lisa.

8 VICE CHAIR CHAPMAN: Did we do the  
9 motion to classify as synthetic yet?

10 MEMBER SONNABEND: No.

11 VICE CHAIR CHAPMAN: So, that's the  
12 motion on the table.

13 MEMBER SONNABEND: We have to take them  
14 in order. Okay. All right. Well, maybe we're  
15 ready to vote on the synthetic and then discuss  
16 amending.

17 MEMBER THICKE: I could go either way  
18 on this, but if we now take that out, now we're going  
19 to be on public record taking out the GMO thing and  
20 then we're going to really confuse people.

21 MEMBER SONNABEND: Not necessarily  
22 because we can explain in the cover sheet why we're

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1 doing it and that it is excluded anyway.

2 CHAIR FAVRE: Okay, we have before us  
3 a classification motion, a motion to classify soy  
4 wax as synthetic. And we'll start the vote with  
5 Lisa de Lima.

6 MEMBER DE LIMA: Yes.

7 VICE CHAIR CHAPMAN: Yes.

8 MEMBER SEITZ: Yes.

9 MEMBER RICHARDSON: Yes.

10 MEMBER BEHAR: Yes.

11 MEMBER SONNABEND: Yes.

12 MEMBER RICE: Yes.

13 MEMBER OAKLEY: Yes.

14 MEMBER THICKE: Yes.

15 MEMBER AUSTIN: Yes.

16 MEMBER BUIE: Yes.

17 MEMBER BECK: Yes.

18 MEMBER SWAFFAR: Yes.

19 MEMBER ROMERO-BRIONES: Yes.

20 CHAIR FAVRE: The chair votes yes.

21 MEMBER DE LIMA: Fifteen yes, zero no.

22 The motion passes.

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1                   MEMBER SONNABEND:   Okay, so now do you  
2                   want to put your motion forward?

3                   MEMBER RICHARDSON:   So now I will make  
4                   a motion to amend the main listing motion.   The  
5                   main listing motion includes a sentence that says  
6                   "must be made from non-GMO soybeans."   I would  
7                   propose to delete that sentence from the main  
8                   listing motion.

9                   MEMBER   SONNABEND:       Lisa, are you  
10                  seconding it?

11                  MEMBER DE LIMA:    Yes, I second.

12                  MEMBER SONNABEND:   Okay.   That is open  
13                  for discussion.   Harriet.

14                  MEMBER BEHAR:    I just want to make sure  
15                  that it does end up somewhere in a preamble that  
16                  ends up in the Federal Register that our intention  
17                  was that because it's being used on certified  
18                  organic land that it must be derived from  
19                  non-excluded methods crops.

20                  MEMBER SONNABEND:   Anyone -- Lisa.

21                  MEMBER DE LIMA:    I just want to say I'm  
22                  with Harold.   I'm going to have a hard time voting

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1 for it if we can't get the language out. Because  
2 I think it's confusing for the list overall.

3 MEMBER OAKLEY: I just want to put in  
4 a last ditch effort that I think you might be  
5 missing the forest for the trees here and  
6 forgetting that there are a lot of people who look  
7 at this list that do not have nearly the depth of  
8 knowledge or interaction with it that everyone else  
9 does.

10 MEMBER SONNABEND: Ashley.

11 MEMBER SWAFFAR: I totally agree with  
12 you Emily, but there's those few who will turn this  
13 into a headline of why is it here but not here.

14 And I think it could send a really bad  
15 message to the community if we spell it out here  
16 and nowhere else.

17 MEMBER SONNABEND: Harold.

18 MEMBER AUSTIN: As a producer and a  
19 handler it's my responsibility to make sure that  
20 I'm doing the proper job to research the materials  
21 that I'm going to apply, submit that list to my  
22 certifier.

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1           So it's a dialogue that's going to be  
2           taking place between myself and my certifier that's  
3           going to make sure that we're not using materials  
4           that are made with excluded methods, or outside of  
5           the scope of what we're supposed to be applying.

6           And that's every person that's  
7           organically certified's responsibility. We're  
8           all in this together.

9           MEMBER SONNABEND: I call on myself.  
10          And Emily, I appreciate your industriousness to  
11          look at the list, but I have to respectfully  
12          disagree.

13          Because after inspecting hundreds of  
14          farms I have almost never found one that looked at  
15          the National List directly. They rely on OMRI and  
16          their certifier to interpret what materials can and  
17          can't be used. Very rare for them to look at the  
18          list. Miles.

19          MR. MCEVOY: Yes, I'm not intimately  
20          familiar with the OMRI decision tree on GMOs, but  
21          I think if you look at it my impression is that they  
22          would not require non-GMO soy to be used in this

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1 particular way.

2 So, if you're going to remove this then  
3 it leaves the possibility that GMO soybeans could  
4 be used in the soy wax.

5 So, by leaving it in you're clarifying  
6 that you don't want that to be used. But if you  
7 take it out it makes it to me very unclear that that  
8 is your intent if you go back to that decision tree.

9 MEMBER SONNABEND: Okay, Miles, I am  
10 very familiar with the OMRI decision tree and would  
11 disagree with the interpretation.

12 But if we could ask Johanna or Peggy to  
13 give that clarification I would appreciate it.  
14 Can we do that?

15 CHAIR FAVRE: Yes, if they're here in  
16 the audience. The information that I've gotten on  
17 it is that it would require non-GMO soybeans and  
18 it would go back all the way to the original source.

19 MEMBER SONNABEND: Yes. The only  
20 exception in the OMRI decision tree is for  
21 soil-applied GMO components like soy oil because  
22 the soil would buffer any residual -- there can be

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1 small amounts of residual GMOs in some oils. It  
2 depends how highly refined it is.

3 And so the OMRI exemption is only for  
4 soil application which a log is not. Can we ask  
5 them? So, Johanna or Peggy.

6 CHAIR FAVRE: Is Johanna or Peggy in  
7 the audience? Okay. Do you want to weigh in on  
8 this as we shine the spotlight on you?

9 MEMBER SONNABEND: You need to come to  
10 the microphone, please.

11 PARTICIPANT: I would be very, very  
12 happy to provide information in writing to you all  
13 on this, but I don't know if I'm comfortable.

14 MEMBER SONNABEND: So to capture that  
15 for the record she doesn't want to comment at this  
16 time but she could supply us with written  
17 information later.

18 I am one of the coauthors of that  
19 decision tree though and know how it is applied all  
20 the time. Tom then Harriet.

21 VICE CHAIR CHAPMAN: Does it make sense  
22 at this point to send this item back to the

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1 subcommittee for further review? Bring it forward  
2 in the fall?

3 MEMBER SONNABEND: Harriet was next,  
4 then you.

5 MEMBER BEHAR: I know there is  
6 confusion out there in the world. If you go on the  
7 internet you'll find all kinds of advertised  
8 non-GMO soy wax on the market.

9 But then when you dig deeper and contact  
10 the manufacturers. Of course, this is not a  
11 regulated term "non-GMO." And so you find out no,  
12 it's just because it's an oil that doesn't contain  
13 the protein that we're calling it non-GMO, but  
14 we're pretty sure it was derived from genetically  
15 modified soybeans.

16 So that's my -- I just want to make sure  
17 that -- there is some confusion in the marketplace.  
18 People with due diligence would buy that non-GMO  
19 labeled soy wax, but it wouldn't actually meet our  
20 definition of non-GMO. It meets some other market  
21 unclear definition.

22 MEMBER SONNABEND: And that's exactly

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1 why we're trying to have our own definition of  
2 non-GMO. Francis.

3 MEMBER THICKE: I remember seeing some  
4 farmers complaining about that microcrystalline  
5 cheese wax even had to be on the list because it's  
6 like a plug. It's like a plastic cap. They  
7 figured it shouldn't even have to be on there.

8 And so it's not really considered by a  
9 lot of people as an input. It's just like a shelf  
10 or something.

11 And so for that reason there may be more  
12 reason to put non-GMO on there because people don't  
13 see it as an input.

14 MEMBER SONNABEND: More discussion, or  
15 a motion to go back to subcommittee, or we'll  
16 proceed to vote on the amendment?

17 CHAIR FAVRE: Yes, we have an amendment  
18 to the motion on the floor.

19 VICE CHAIR CHAPMAN: But if we do move  
20 to refer to subcommittee.

21 CHAIR FAVRE: We can withdraw the  
22 motion, but just as a reminder we do have an open

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1 motion on the floor.

2 VICE CHAIR CHAPMAN: I would make the  
3 motion to refer to subcommittee, but from looking  
4 around the room when I said that I didn't feel like  
5 there was strong support for that. Maybe I'm  
6 wrong. Didn't hear anyone else pick it up so I'm  
7 not going to make that motion. But if other people  
8 start speaking to it then I will.

9 MEMBER SONNABEND: So then we're going  
10 to proceed to vote on the amendment. So the  
11 amendment is to remove the last sentence of the  
12 listing motion, remove the sentence "must be made  
13 from non-GMO soybeans."

14 And anymore discussion? Harriet.

15 MEMBER BEHAR: So just in the record  
16 then if we remove this then we are then relying that  
17 all the producers will go to their certifiers first  
18 with all inputs that they are using in the Organic  
19 System Plan to receive approval before use.

20 And their certifiers will clarify for  
21 them whether or not they meet the regulation which  
22 would include not being derived from a crop that

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1 was produced using excluded methods.

2 MEMBER SONNABEND: Tom.

3 VICE CHAIR CHAPMAN: I'm really not  
4 comfortable in voting on this. I realize I'm also  
5 the first one up on the list.

6 I mean, the program on one end is saying  
7 we should say this. And certifiers and other  
8 people are saying we shouldn't.

9 I see both sides of this. I am going  
10 to make a motion to refer back to subcommittee.

11 MEMBER SWAFFAR: Second.

12 MEMBER SONNABEND: Who seconded.  
13 Ashley seconded.

14 CHAIR FAVRE: All right, we have a  
15 motion and a second.

16 MEMBER SONNABEND: Okay. And does  
17 that supersede the motion?

18 VICE CHAIR CHAPMAN: I'm sending all of  
19 that to subcommittee.

20 CHAIR FAVRE: Hold on a minute.

21 MEMBER SONNABEND: Wait, they have to  
22 withdraw the motion to amend first.

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1 (Simultaneous speaking.)

2 MEMBER SONNABEND: So, does the maker  
3 of the motion, or do we need a parliamentarian here?

4 I mean, I think a motion to table  
5 supersedes the amending motion, but --

6 CHAIR FAVRE: I don't think it does.  
7 Emily's got her hand up over there.

8 MEMBER SONNABEND: Emily.

9 MEMBER OAKLEY: I'm just going to note  
10 that I don't think sending it back is going to  
11 provide everybody else in this room clarity.

12 I think that there was clarity at the  
13 subcommittee level when this was proposed. And I  
14 wasn't officially on the Board at that time, but  
15 I listened in on that meeting and it was crystal  
16 clear what the intent was.

17 I also think the fact that Miles is  
18 promoting that idea is something everyone should  
19 listen to.

20 And I don't know what the final rule  
21 would be, but it might just end up including it  
22 anyway. So, just putting that out there.

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1                   MEMBER SONNABEND:     So probably we  
2                   should vote on the amendment because it was already  
3                   on the floor.   And once that's voted on if it fails  
4                   then you could put in a motion to go back to  
5                   subcommittee.   Or either way you could before we  
6                   vote it onto the list.

7                   CHAIR FAVRE:     I'd actually like to  
8                   propose we take a break.   We're about due to take  
9                   our break anyway.

10                  MEMBER SONNABEND:    And then have to  
11                  rehash the discussion all over again?

12                  CHAIR FAVRE:     No, but I call an  
13                  emergency break.

14                  (Laughter.)

15                  CHAIR FAVRE:     We're going to take a  
16                  15-minute break and reconvene at 3:20.   And this  
17                  will take the place of our planned break at 3:15  
18                  so everybody knows.   So 3:20, everybody come back  
19                  here, please.

20                  (Whereupon, the above-entitled matter  
21                  went off the record at 3:05 p.m. and resumed at 3:28  
22                  p.m.)

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1 CHAIR FAVRE: All right, we're going to  
2 get started back again.

3 Okay, just to remind everybody where we  
4 were at we were having a discussion on whether or  
5 not we were going to send this back to committee  
6 or go ahead with the amended motion.

7 And I believe the last person talking  
8 was Tom.

9 VICE CHAIR CHAPMAN: I had made a  
10 motion and it was seconded by Harold or Ashley.  
11 Ashley. To refer to subcommittee.

12 CHAIR FAVRE: Okay, so we have a motion  
13 and a second to refer it to subcommittee.

14 We have conferred with the  
15 parliamentarian and that motion actually takes  
16 precedence or priority over the motion to amend the  
17 listing. So therefore we are going to go ahead and  
18 vote on the motion to send it back to committee  
19 before we decide about amending the listing motion.

20 And I believe the vote starts with Tom.

21 VICE CHAIR CHAPMAN: And it's a  
22 majority motion, right?

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1 CHAIR FAVRE: Yes, this is a simple  
2 majority, not a two-thirds majority motion just for  
3 the FYI to the members.

4 VICE CHAIR CHAPMAN: Yes.

5 MEMBER SEITZ: Sending this back to  
6 committee.

7 CHAIR FAVRE: Yes, this is the motion  
8 to send it back to committee. So a yes motion would  
9 send it back without further vote on the listing  
10 motion.

11 MEMBER SEITZ: Yes.

12 MEMBER RICHARDSON: Yes.

13 MEMBER BEHAR: Yes, please.

14 MEMBER SONNABEND: Yes.

15 MEMBER RICE: Oh yes.

16 MEMBER OAKLEY: Considering the room,  
17 yes.

18 MEMBER THICKE: Abstain.

19 MEMBER AUSTIN: Yes, ma'am.

20 MEMBER BUIE: Yes.

21 MEMBER BECK: Yes.

22 MEMBER SWAFFAR: Yes.

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1 MEMBER ROMERO-BRIONES: Yes.

2 MEMBER DE LIMA: Yes.

3 CHAIR FAVRE: The chair votes yes.

4 MEMBER DE LIMA: Fourteen yes, one  
5 abstain. The motion passes.

6 CHAIR FAVRE: Okay, so this will be  
7 headed back to committee to hopefully be discussed  
8 further and brought forward as appropriate.

9 MEMBER SONNABEND: Okay, now that  
10 brings us to one of our most juicy subjects of the  
11 whole meeting, the subject of inerts, and in  
12 particular first, nonylphenol ethoxylates.

13 When we first undertook this program to  
14 work with the EPA Safer Choice we compared our list  
15 of known inerts which is now several years old, but  
16 at least captures most of the known inerts in  
17 organic products with what EPA Safer Choice had  
18 already reviewed.

19 And we came up with therefore how many  
20 things would still need to be worked on. And while  
21 we're still actually working on a more accurate  
22 version of that list in light of testimony we

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1 received at the last NOSB meeting it became clear  
2 that there were going to be a few inerts that are  
3 in use in organic materials now but which would not  
4 pass their -- which they've already reviewed and  
5 would not pass the Safer Choice screening.

6 One category of these was nonylphenol  
7 ethoxylates. And we decided as a subcommittee  
8 maybe over a year ago now that it would be a shame  
9 if we waited till the very end of the whole review  
10 process which could be easily 8 to 10 years from  
11 now until everything gets transferred over to the  
12 new system, and then all of a sudden have this group  
13 of leftover things that people would not be  
14 notified about until then as far as the need for  
15 reformulation.

16 Because while some people say that, oh,  
17 they'll think of it on their own when they see it  
18 coming, but that just isn't the way the world works.

19 And so we decided we should do a TR on  
20 these things which we have done. And the TR made  
21 it very clear that they were not really appropriate  
22 for organic production.

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1           And so now we're starting the process  
2 of letting the community know, the community who  
3 makes products know that these things are going to  
4 be phased out.

5           So this is the first step of this. I  
6 mean, we did actually put one paragraph in the  
7 annotation change proposal regarding this.

8           But now we've come with a discussion  
9 document. And the main purpose of the discussion  
10 document is to start collecting information from  
11 stakeholders about how long it's going to take them  
12 to reformulate and ask them to provide suggestions  
13 for how to outreach to the parties that will be  
14 affected, i.e., the formulators.

15           We didn't get a lot of comments back on  
16 this, but we did get quite a bit of misunderstanding  
17 I felt among our regular commenters who seemed to  
18 think that it would be three years and the clock  
19 would start ticking from this discussion document.  
20 And this just is not the way the world works in  
21 organic regulations.

22           Nothing happens starting from a

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1 discussion document. No timeline ever happens  
2 from that.

3 And so the intent was to -- at a point  
4 this proceeds to a recommendation that it would  
5 then be a proposal from the Materials Subcommittee,  
6 and then a recommendation passed by the Board.

7 And even then the clock doesn't start  
8 ticking, but the recommendation will have a  
9 suggested timeline in it.

10 And when that is turned into  
11 rulemaking, that's when the clock actually starts  
12 ticking.

13 So, you can see why things take so long.  
14 And if they didn't have so many FOIA lawsuits they  
15 might be able to do things quicker.

16 But nonetheless this is happening at  
17 its pace of us being able to eventually remove these  
18 things.

19 We did -- so as I say, most of the public  
20 comment involved either hurry up and do this, or  
21 three years isn't long enough. I'd have to say we  
22 expected that.

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1           But the three years isn't long enough  
2           complaints weren't -- we made at least the affected  
3           parties who commented understand better. And most  
4           of them didn't think it would be three years from  
5           the discussion document, that it would be a longer  
6           period of time.

7           Unfortunately we didn't get very many  
8           answers to our question three which was to provide  
9           suggestions for outreach to the parties affected  
10          by this change.

11          But I am happy to see at least some of  
12          the formulators have been here in the room and are  
13          aware, and the formulators associations are aware  
14          of this and will take this back to their members.

15          We got a significant amount of comment  
16          that this will be much harder to do in livestock  
17          teat dips where the NPEs are used.

18          We may by the time we go to proposal come  
19          with a separate one for livestock than from the  
20          Materials Subcommittee, or we may not, or we may  
21          not do anything. Not separately Jean's saying.  
22          Not do anything.

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1           Okay, well we'll make that clear if  
2 we're going to separate out the livestock issues  
3 from the crops ones.

4           So, I will have to say then speaking  
5 just for crops I think this is going to come  
6 eventually.

7           The EPA has publicly stated that while  
8 they're not taking action to remove them, they  
9 would be really happy if these things would be  
10 removed. And therefore this will proceed.

11           However, I will also have to say that  
12 those commenters who said well, you shouldn't do  
13 this before the annotation rule is in place were  
14 absolutely correct. And it was not my intention  
15 to advance this to the recommendation stage until  
16 we do have the rulemaking on the annotation which  
17 might be a little while from now, but at least we  
18 will have had the notice to the community that this  
19 is going to happen after that happens.

20           So, any questions or comments on this?

21           MEMBER BEHAR: So this brings up that  
22 we don't necessarily have a procedure for not

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1 allowing things that are on the Safer Choice list.

2 And when you say that EPA likes the idea  
3 of removing it, would we ask EPA to completely  
4 remove it from the Safer Choice list, or it's just  
5 that it would not be allowed in organic production?

6 MEMBER SONNABEND: These are not on the  
7 Safer Choice list. Safer Choice told us these  
8 would not make it through their program.

9 And the EPA also didn't say they liked  
10 this. The EPA said -- the EPA issued a statement  
11 -- I don't know where I put it. I think it was in  
12 the last version. But anyway, they didn't exactly  
13 say stop using them, and they didn't say they were  
14 happy we were doing this or anything that direct.

15 But they did indicate that they didn't  
16 feel that these things had much of a future. I  
17 don't have the language with me, I'm sorry.

18 Anyone else? Okay. So it was as I  
19 mentioned just a discussion document. The  
20 subcommittee will talk about when it's appropriate  
21 to bring it forward again.

22 So now we're going to have a little

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1 update from Emily Brown Rosen about the Inerts  
2 Working Group which will answer your question about  
3 the procedure that will -- well, it won't answer  
4 your question. It will give a progress report on  
5 the issues we're working on around the procedures.  
6 Emily.

7 MS. BROWN ROSEN: Okay, thank you.  
8 I'm just going to read a little statement -- I don't  
9 have a PowerPoint on this, but we will put this  
10 statement, post it with the proceedings so people  
11 can refer to it if they need to.

12 This is the Inerts Working Group  
13 update. And my name's Emily Brown Rosen with the  
14 Standards Division at USDA, AMS-NOP.

15 Inert ingredients are any substances  
16 other than an active ingredient which are  
17 intentionally included in a pesticide product.

18 Examples would include adjuvants,  
19 solvents, diluents, stabilizers and  
20 preservatives.

21 Last October at your October meeting  
22 2015 the NOSB supported a recommendation to amend

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1 the National List regarding the use of inert  
2 ingredients in pesticides.

3 The NOSB recommended changes that would  
4 remove the current categorical allowance for  
5 inerts that appear on the now obsolete EPA List 4A,  
6 4B and List 3. List 3's were the ones you were  
7 looking at for a sunset review for 2018 and they  
8 are currently only allowed for use in passive  
9 pheromone dispensers.

10 The recommendation supported replacing  
11 this with several new options. So, just as a  
12 reminder these options included those inerts  
13 appearing on the EPA's Safer Chemical Ingredient  
14 List, otherwise known as SCIL, those that are  
15 approved by EPA for what they call the 25B products,  
16 those pesticide products that are exempt from  
17 registration, and those inerts that are approved  
18 by EPA for use in pheromones when used in passive  
19 dispensers.

20 And also it would preserve the option  
21 for petitioners to specifically petition and add  
22 individual inerts on the National List. So it's

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1       like a new framework for reviewing and  
2       incorporating allowance for certain inert  
3       ingredients.

4               So, the Inerts Working Group consists  
5       of at the present time two NOSB members, Jean  
6       Richardson, Zea Sonnabend and NOP staff which is  
7       Lisa Brines, myself, and Paul Lewis has been  
8       joining us. And we also have several people from  
9       the EPA Office of Pesticide Programs, Chris Pfeifer  
10      and Kerry Leifer.

11              We met last November and then NOP met  
12      further with the Safer Choice program to discuss  
13      what the next steps would be for this program.

14              A couple of key points that we did  
15      discuss in light of the comments at the last NOSB  
16      meeting were, one, the need for regular updates  
17      from the Safer Choice program to NOSB regarding  
18      their list and any additions to their list.

19              And then what type of oversight the NOSB  
20      could have over continuing monitoring of these  
21      decisions and additions.

22              The other points were what would an

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1 approved SCIL list look like to identify inerts  
2 that are approved for organic production.

3 How would manufacturers apply. What  
4 is the process. And four, what kind of outreach  
5 to manufacturers can be done.

6 There remains a lot of work to do on this  
7 project. Before we move forward with a rulemaking  
8 docket to formalize the change to the National List  
9 the NOP has a number of other pressing rulemaking  
10 projects to complete.

11 Notably, we have to get the 2016 and  
12 2017 sunset revisions all processed through  
13 notices and final rules.

14 We will proceed with the proposed  
15 rulemaking including submitting a work plan. We  
16 have to get a work plan approved to OMB for this  
17 project. We have to draft all the supporting  
18 background information and the regulatory language  
19 as soon as we have resources available and get it  
20 in the queue.

21 Some of our additional short-term work  
22 plans include reviewing a compiled list of known

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1 inert ingredients in organic, comparing it to the  
2 SCIL list to identify the outstanding one.

3 Identify the inerts that already appear  
4 on the SCIL list and so don't need further action.

5 We have to also identify which of the  
6 SCIL substances have EPA tolerances or tolerance  
7 exemptions for use as inert ingredients in  
8 pesticides.

9 Because not everything on the SCIL list  
10 has an EPA tolerance so it will not automatically  
11 qualify.

12 They have different categories of  
13 ingredients there. If you're not familiar with  
14 that program they have -- they review all different  
15 types of chemicals and put them in different  
16 categories like surfactants or solvents.

17 A lot of them are used as ingredients  
18 in industrial cleaning products, that type of  
19 thing. It's not really designed for inert  
20 ingredients, but there does happen to be overlap  
21 in that many of these ingredients are also used as  
22 inert ingredients. That's why the whole program

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1 is of interest.

2 So, we plan to continue to meet on a  
3 regular basis to work out the details of the program  
4 and NOP is committing to getting started on the  
5 necessary background rulemaking work.

6 So that's all I have. If you have any  
7 questions I'd be happy to answer them. Harriet.

8 MEMBER BEHAR: So you mentioned that  
9 you were going to compile a list of the inerts that  
10 are being used in products that are used on organic  
11 land.

12 MS. BROWN ROSEN: We have a list, but  
13 it's not necessarily particularly accurate. We  
14 received some help from OMRI and WSDA back in 2013  
15 to give us a pooled list of inerts that they know  
16 are in products, but not associated with any  
17 product names, just the ingredients themselves.

18 So, we have that list. I don't know  
19 that it's up to date, but we can start with that  
20 to get a rough idea of which ones already appear  
21 on the SCIL so we know how big of a problem we have  
22 as far as getting the other needed ones reviewed

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1 and looked at carefully.

2 MEMBER BEHAR: Were you going to do any  
3 outreach to certifiers on that?

4 MS. BROWN ROSEN: As we get further  
5 along. What did you have in mind?

6 MEMBER BEHAR: Well, just what inerts  
7 that they know. 2013 is three years ago.

8 MS. BROWN ROSEN: We haven't decided  
9 yet.

10 MEMBER BEHAR: Maybe if you compile it  
11 then you can say is there anything beyond this list  
12 or something like that.

13 MS. BROWN ROSEN: Well, yes. That's  
14 certainly under discussion. We may have at some  
15 point reach out in general to do a call in for more.

16 Once we have the procedure for the  
17 program I think better sketched out then we can do  
18 more publicity and get more feedback on that.

19 Okay, thank you.

20 MEMBER SONNABEND: This concludes the  
21 Crops Subcommittee business.

22 CHAIR FAVRE: Thank you, Zea. Okay,

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1 since we have no deferred proposals or final votes  
2 and we already took our break we are now at the  
3 subcommittee work agenda place.

4 Okay, so this is our current working  
5 agenda for the various subcommittees. I'm going  
6 to turn it over to each of the subcommittee chairs.

7 I should state that the process that  
8 we're using here for subcommittee updates is that  
9 it's proposed in subcommittee or through an issue  
10 that's brought forward to the Board from public  
11 comment or elsewhere.

12 It comes out as a recommendation from  
13 the subcommittee brought to the executive  
14 subcommittee. And then basically there's a  
15 write-up as part of that that describes what it is  
16 that we're hoping to do.

17 We've tried to formalize the process  
18 somewhat so that we don't have a lot of very vague  
19 and so broadly termed projects on the Board that  
20 we can't effect completion of those projects. And  
21 so we have a lot of dangling participles out there.

22 And so then they'll come before the

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1 executive subcommittee and submitted and discussed  
2 with the NOP.

3 And then we get formal acknowledgment  
4 from the NOP. We add it officially to the work  
5 agenda.

6 That work agenda will be officially  
7 presented in the fall. And so you will probably  
8 see some of the discussion items that have come up  
9 at this Board meeting as well as some things that  
10 have still been outstanding in subcommittee.

11 So, I just wanted to say that as a  
12 preface because there's probably some things on  
13 here you'd think well hey, wait a minute, I thought  
14 we were going to add this.

15 This is what we came into this meeting  
16 with before we had the discussions here today. So,  
17 are all the Board members clear on that? Okay.

18 So I'm going to turn it over first of  
19 all to Carmela for CACS.

20 MEMBER BECK: So, as we talked about  
21 earlier there's one agenda item we'll be looking  
22 at in NOP Instruction 2027, specifically the

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1 requirement to do annual infield inspections of  
2 inspectors. And that's all we have at this point  
3 in time.

4 CHAIR FAVRE: Just as a reminder, we  
5 did have the issue of the removing the incentive  
6 to convert native lands that potentially is going  
7 to be brought forward to the subcommittee.

8 MEMBER BECK: Sure.

9 CHAIR FAVRE: Is there anybody else on  
10 the subcommittee that has any comments or  
11 discussion?

12 MR. MCEVOY: Yes, just a comment about  
13 the NOP 2027. We've implemented this instruction  
14 to certifiers.

15 As was said in public comment it's  
16 always been a requirement that inspectors meet  
17 certain qualifications and that they are evaluated  
18 on an annual basis.

19 What we clarified in 2027 was that they  
20 needed to be evaluated in the field and not just  
21 a desk review of their work, not just looking at  
22 their inspection reports.

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1           We had seen through our audits of  
2           certifiers that there were some certifiers that had  
3           never actually observed the inspectors operating  
4           in the field.

5           We felt that that was very much a  
6           deficiency in terms of ensuring the quality of the  
7           inspection work.

8           Therefore we issued this instruction to  
9           certifiers to clarify that actually seeing how an  
10          inspector operates and ensuring that they're being  
11          thorough, and the right demeanor, and following  
12          procedures is really, really important.

13          We have gotten a lot of feedback from  
14          certifiers that have really appreciated the  
15          clarification, but also are concerned about the  
16          cost, the impact on doing this on an annual basis,  
17          doing these field evaluations on all their  
18          inspectors on an annual basis.

19          We had conversations with the  
20          certifiers. We have modified the instruction  
21          somewhat and we'll continue to have conversations  
22          with certifiers to see how we can ensure that

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1       there's quality inspections and quality  
2       evaluations of those inspectors that continues,  
3       but see if there's some way to provide a little more  
4       flexibility in that process.

5               So we look forward to working with the  
6       Board as well as certifiers on that important part  
7       of maintaining organic integrity. Thanks.

8               CHAIR FAVRE: Okay, next up is Crops.  
9       Zea.

10              MEMBER SONNABEND: I thought I had a  
11       newer version than this one you sent us this  
12       morning, Tracy. I guess it's up there.

13              Okay. So, we have several petitions  
14       that we're working on.

15              The aluminum sulfate, it's a litter  
16       additive or what do you call it -- amendment, thank  
17       you. But it has to be reviewed on crops because  
18       the resulting litter-manure mixture will be spread  
19       on fields.

20              We have one for 1-MCP which is a  
21       post-harvest treatment for primarily apples. One  
22       for fatty alcohols. And two relatively new ones,

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1 ammonium glycinate and ammonium citrate which are  
2 chelating agents for micronutrients.

3 Then we have a brand new one that isn't  
4 on there for anaerobic digestate made by one  
5 particular method.

6 Our other projects include  
7 contaminated issues in farm inputs which Harriet  
8 has graciously agreed to lead. And we're trying  
9 to identify which parts of this very vast issue to  
10 focus on.

11 So we don't know what the end product  
12 will be on that, but we'll at least have some sort  
13 of update I hope by fall.

14 The biodegradable biobased mulch which  
15 we don't know will turn into a proposal or a review  
16 or what, but we are taking that up again.

17 The prohibition of NPEs as I mentioned  
18 might advance to proposal, but possibly not by fall  
19 and so that probably should be a TBD in the  
20 timeline. We'll talk about it when it comes.

21 And then the anaerobic digestate which  
22 is now an other project because the petition we had

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1 from it from last year got withdrawn, but it raised  
2 some bigger issues. And now that we have a new  
3 petition those bigger issues still exist.

4 But we probably will handle it as a  
5 petition and just ask for a broader scope of the  
6 TR that we're going to do so that it doesn't  
7 encompass just one way to make anaerobic digestate,  
8 but it encompasses some of the other ways that  
9 anaerobic digestate will be made.

10 So, the petition only came this week and  
11 so we haven't discussed that yet in subcommittee.

12 We're expecting the hydroponics report  
13 back from the task force in June approximately.  
14 And so we will be -- that report will be presented  
15 at the fall NOSB meeting formally and the committee  
16 will start working on whatever proposals will come  
17 from that report.

18 We're expecting a TR back on the marine  
19 materials which will affect all of the crops,  
20 livestock and handling. But we will look at the  
21 crops portion of that and possibly have a  
22 discussion document or some other activity around

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1 that.

2 We have put in for a TR on newspaper  
3 because a really complete TR had never been done  
4 and questions came up during the sunset review that  
5 may want us to consider an annotation change in  
6 light of newer technologies for creating paper and  
7 ink.

8 And then our most recently approved  
9 work agenda item in light of the seed purity  
10 discussion document was to take another look at the  
11 guidance on seed and planting stock and see if we  
12 could strengthen particularly the seed portion and  
13 possibly also the planting stock.

14 So, that's a pretty -- and then of  
15 course we have the sunset 2018 items. And so  
16 that's a pretty full agenda we have for the next  
17 semester.

18 MR. MCEVOY: Yes, on the anaerobic  
19 digestate topic we have additional information  
20 that we'll be providing to the Board in a memo to  
21 the Board within the next couple of weeks to provide  
22 more background, more questions for the Board to

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1 consider on that particular topic.

2 So look for that in the next couple of  
3 weeks. That will be sent to the Board and then  
4 posted on the AMS website for the public to see as  
5 well.

6 MEMBER SONNABEND: Thank you.

7 CHAIR FAVRE: Okay, next up is  
8 Handling. Harold.

9 MEMBER AUSTIN: Thanks, Tracy. Okay,  
10 so for handling for this upcoming semester for  
11 petition materials we've got chlorine dioxide dry  
12 gas to look to adding that to 205.605.

13 Oat protein concentrate, looking at  
14 that to add it to 205.605.

15 We also -- from a petition material  
16 perspective we also have SDBS back to the  
17 subcommittee that we just referred back today.

18 Other projects that we'll be working  
19 towards. Fall will be packaging substance used in  
20 organic food handling including BPA. Xanthan gum  
21 reclassification proposal. Tocopherols.  
22 Nutrient vitamins and minerals annotation change.

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1           Phosphate annotation change.    The  
2 marine materials likewise we will be looking at  
3 that in handling and how that applies.   Here we've  
4 got it down as a proposal.   In crops we had it as  
5 a discussion document.   I think that's yet to be  
6 determined.   Once we get the TR back which we have  
7 not received yet, and then we'll figure out how we  
8 take and work with that.

9           Magnesium chloride reclassification  
10 proposal due for the fall.

11           And then we've got our sunset 2018  
12 materials which consist of agar-agar, animal  
13 enzymes, calcium sulfonate mined, carrageenan,  
14 glucono delta-lactone, tartaric acid, cellulose,  
15 potassium hydroxide, silicon dioxide and colors  
16 beta carotene extract.

17           CHAIR FAVRE:   Thank you, Harold.   Next  
18 up is Livestock.   Ashley.

19           MEMBER SWAFFAR:   Sorry, we kind of  
20 already went over a lot of this, but in livestock  
21 what we'll be bringing to fall are four petitions,  
22 aluminum sulfate, sodium bisulfate, acid activated

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1 bentonite which are all poultry litter amendments  
2 and sulfur.

3 Our other projects that we're currently  
4 working on is the Organic Poultry Working Group.

5 And we're also monitoring the marine  
6 materials work that's being done by the Crops and  
7 Handling Subcommittee.

8 And I'm very lucky to have a whole lot  
9 of new members on our subcommittee so we're going  
10 to be bringing forward a lot of extra things since  
11 they're all eager and ready to get to work. Yes,  
12 Jean.

13 MEMBER RICHARDSON: I note that the  
14 lignin sulfonate is still there under aquaculture.  
15 I believe the petitioner withdrew that petition.  
16 It says aquaculture lignin sulfonate chelating  
17 agent.

18 Oh, it was the one for plants. All  
19 right. Because it was the other lignin sulfonate  
20 that was withdrawn for the feeds. Okay.

21 CHAIR FAVRE: And just as a reminder to  
22 folks we have discussed here at this meeting and

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1 just prior to this Board meeting in livestock the  
2 intent to bring forth a request to add an emergency  
3 use definition for use of parasiticides to the  
4 livestock work agenda. But we have not done that  
5 yet.

6 I'm sorry, yes. And also the proposal  
7 to remove -- a petition to remove Ivermectin from  
8 livestock 603.

9 MEMBER SWAFFAR: Miles.

10 MR. MCEVOY: The Poultry Task Force is  
11 still on the list, but we're still not sure what  
12 the purpose. Still working on it? Okay.

13 So we're waiting to hear back from the  
14 Board of what you're thinking about. Is this a  
15 task force? Is it a working group? Is it an  
16 official task force that reports to the Board?  
17 What is their scope of the information that you're  
18 looking for.

19 So we're looking forward to hearing  
20 more clarification about what you're looking for  
21 there.

22 MEMBER SWAFFAR: So, just to respond to

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1 that. I owe the subcommittee next week the  
2 proposal for you. We're going to work it over and  
3 hopefully by the end of May get you our proposal.  
4 So that's kind of our timeline.

5 CHAIR FAVRE: I just wanted to add that  
6 we sort of felt like we wanted to at least see the  
7 draft regulations for animal welfare.

8 Because it felt like maybe some of that  
9 would be designated in that, and we wanted to make  
10 sure that we weren't duplicating efforts. So now  
11 that that's out I feel like we can really bite into  
12 that and get you something.

13 Okay, is that it? Next up is policy  
14 development. Tom. Sorry, Materials. GMO.  
15 Lisa.

16 MEMBER DE LIMA: So, we have four  
17 proposals we'll be looking to bring forward to the  
18 fall meeting. A research priorities proposal  
19 which we do annually, the seed purity from GMOs and  
20 the excluded methods terminology.

21 And then we're also looking to bring a  
22 five-year report to the Secretary of Ag on GMO

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1 issues overall in organic production.

2 CHAIR FAVRE: Zea.

3 MEMBER SONNABEND: One very minor  
4 clarification. I think it will have to be once  
5 again an excluded methods terminology proposal and  
6 also a discussion document. Because we're never  
7 going to have it all finished.

8 CHAIR FAVRE: Okay. Next up is policy  
9 development. Tom?

10 VICE CHAIR CHAPMAN: Who here was  
11 hoping they didn't have to hear me say the words  
12 PPM again today?

13 So, on policy development we have three  
14 items. Sunset reorganization, taking the  
15 feedback we got from this meeting and moving it  
16 forward.

17 An update to the member guide and the  
18 updates to the PPM are ongoing standing items for  
19 the PDS.

20 CHAIR FAVRE: Okay, thank you. So  
21 folks, like I said, that's the current work agenda.  
22 We'll probably have some items that we'll be adding

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1 to it between now and the fall when you see us again.

2 Next up on our agenda is presentation  
3 of the appointment letters and certificates for  
4 incoming members. I believe we'll turn that over  
5 to Miles.

6 MR. MCEVOY: Okay, so the new members  
7 have already been initiated for the last few months  
8 and also the last few days.

9 So I think first of all we should give  
10 them a big round of applause for already what  
11 they've contributed to the organic community in  
12 surviving.

13 (Applause.)

14 MR. MCEVOY: So I have plaques and  
15 letters from Secretary Vilsack to welcome and  
16 acknowledge their appointment to the National  
17 Organic Standards Board and their contributions  
18 that they'll make to the organic community over the  
19 next number of years.

20 So first of all to Harriet Behar. It  
21 says a certificate of appointment presented to  
22 Harriet Behar with appreciation for accepting the

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1 call to serve the nation and the United States  
2 Department of Agriculture as a member of the  
3 National Organic Standards Board.

4 Secretary of Agriculture Tom Vilsack.  
5 (Applause.)

6 MR. MCEVOY: Next I have another  
7 certificate of appointment presented to Emily  
8 Oakley with appreciation for accepting the call to  
9 serve the nation and the United States Department  
10 of Agriculture as a member of the National Organic  
11 Standards Board.

12 So thank you, Emily, for your service.  
13 (Applause.)

14 MR. MCEVOY: Okay. Tracy says I don't  
15 have to read each one.

16 Okay, so the next one is for Dan Seitz.  
17 I pronounced it right? Thank you. Dan, thank you  
18 so much.

19 (Applause.)

20 MEMBER SEITZ: I just want to say this  
21 is the first time I've ever gotten a certificate  
22 for future work and I really appreciate it.

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1 MR. MCEVOY: Next I have a certificate  
2 for A-dae Romero-Briones for her service.

3 (Applause.)

4 MR. MCEVOY: Next I have a certificate  
5 for Jesse Buie for his service to the nation and  
6 USDA.

7 (Applause.)

8 MR. MCEVOY: And finally to Scott Rice  
9 for the certifier representative. Thank you,  
10 Scott.

11 (Applause.)

12 CHAIR FAVRE: Thank you, Miles. Okay,  
13 is there other business to be attended?

14 Okay, well we're at that segment of the  
15 program when we're all sad to see it end. Harriet,  
16 yes. Oh yes, I'm sorry.

17 MS. ARSENAULT: Madam Chair, can we  
18 make the group photo other business?

19 CHAIR FAVRE: Well, no, we'll do that  
20 after we adjourn the meeting. Nice try but no.

21 Yes, we have some closing remarks. To  
22 continue and bookend our session here this week I'd

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1 like Harriet to read us some inspirational lines.

2 MEMBER BEHAR: I know it by heart.

3 Since we're in the Robert Frost mode.

4 And this is for this time of year and  
5 you'll just hear the poem.

6 Nature's first green is a gold,

7 Her hardest hue to hold,

8 Her early leafs a flower,

9 But only so an hour.

10 Then leaf subsides to leaf.

11 So Eden sank to grief,

12 So dawn goes down to day.

13 Nothing gold can stay.

14 CHAIR FAVRE: Well, hopefully we  
15 aren't going to descend from Eden during my term  
16 on the Board. And we may have to start paying  
17 royalty to Robert Frost's estate for all the use  
18 of his language for inspiration, but thank you very  
19 much.

20 I'd just like to close this session  
21 today by saying I appreciate all the work from the  
22 members on the Board, particularly new members.

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1 We threw you into some pretty deep waters at this  
2 session and I think you handled it quite admirably,  
3 much better than I would have done in your shoes.

4 And I'm very, very pleased and  
5 delighted with the engagement and the insight  
6 demonstrated by our new cohort of Board members so  
7 I want to thank you all for that.

8 And I also want to thank -- it's  
9 definitely taken a village for me to manage this  
10 meeting this week. There's been quite a few people  
11 who've made sure that I stayed generally in my lane  
12 and between the lines and I want to thank you all  
13 for that.

14 And at this point I'd like to entertain  
15 a motion to adjourn.

16 VICE CHAIR CHAPMAN: So moved.

17 MEMBER BEHAR: Second.

18 CHAIR FAVRE: I have a motion and a  
19 second and a third. I think we can do that by  
20 proclamation. All those in favor signify by  
21 saying aye.

22 (Chorus of aye.)

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1                   CHAIR FAVRE: I hereby adjourn the  
2                   spring 2016 meeting of the NOSB.

3                   (Whereupon, the above-entitled matter  
4                   went off the record at 4:10 p.m.)

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