

Rhode Island DEM/Division of Agriculture

Specialty Crop Block Grant Program – Farm Bill

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SECOND ANNUAL REPORT

Submitted:

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PROJECT TITLE

HARVESTING RHODE ISLAND FINAL REPORT

Project Title

Harvesting Rhode Island

Specialty Crop Grant / RIDEM Contract # 014 – 018

Project Summary and Purpose

“Harvesting Rhode Island” is a pilot television series with Rhode Island PBS – TV. The series enhanced the competitiveness of the Rhode Island farmers against out of state growers by providing the consumers of Rhode Island and nearby Massachusetts with educational information on local farms, their locations, and the specialty crops they harvest.

The project was created because of the lack of information about the local farms provided to consumers specifically on television. There are several main objectives to this series. One was to make the specialty crop farmers more competitive with their harvest by informing the public on locally raised products and where to purchase them. The second was to provide a format for educating the public on the benefits of buying local and supporting the viability of local farms. The scope of the project included twelve locations interviewing twenty-two farmers over five half hour episodes.

“Harvesting Rhode Island” promoted public awareness through folk life studies by interpreting how this historically significant way of life on the farm managed to survive and become more competitive through resourceful adaptation. The television pilot explored how traditional systems can be creatively maintained and become more of a dynamic marketplace. Introducing the general public to the farmers of Rhode Island through television provided the public insights into the complex but easily taken-for-granted process behind products they consume. The educated consumer will keep the farms that grow specialty crops viable and competitive.

In the latter part of the twentieth century local wholesale markets began to shrink due to large retailers and national distribution systems. As a result growers increased their direct marketing through on-site stands, pick your own programs, farmers’ markets and selling through Farm Fresh to local retailers. This direct approach has in turn stimulated diversification to satisfy the eclectic tastes of increasingly sophisticated consumers. Growers now cultivate an array of both fruits and vegetables, and some are making and selling prepared foods.

A large number of consumers in Rhode Island were unaware of the locations and variety of crops that are grown in the state. Most consumers who purchase local products in the retail stores have never been to the farms harvesting the products. If the “Buy Local” movement is to grow at a faster pace the farmers need an outlet where they can tell their stories. The time was right for creating a sophisticated advertising champagne, providing information to the consumers about the locations of the farms, the crops they harvest, and where they can purchase the products. This television series educated the consumers about specialty crops by bringing them on location to the farms where they were able to see and listen to the farmers talk about the crops. The project producer worked with people from the Rhode Island Nursery

and Landscape Association, Rhode Island PBS, and Heather Faubert from Cooperative Extension at the University of Rhode Island. Farmers were surveyed after the episodes were aired on television. Questions on the survey requested information pertaining to percentages of increased sales and new visibility of the farms. Additional information was requested as to the importance of the project and the outcomes. The outcomes and direct comments from farmers are listed below in this report.

Project Approach

Work Plan

Mr. Caserta was the host of the series and worked with an established television crew to carry out the activities accomplishing the project objectives. As producer he worked with the director, videographer and editor. Alex worked with the graphic designer and the musicians who produced the original score for the show and background music. He developed a working relationship with two students at Rhode Island College who worked as interns on graphic design for a poster and marketing. Mr. Caserta retained an attorney for the development of contracts for the working crew and copyright procedures. He made contact with the farmers to establish schedules for filming, created interview data forms and questions, and a video agreement form for individuals included in the episodes. He was in contact with the program director at Rhode Island PBS throughout the entire filming, editing process and the scheduling of the episodes.

- September 2013 - Research information on seasons for harvesting specialty crops. Develop benchmarks for the collection of data.
- April – December 2014 - Developed questions for five pilot episodes.
- May – September 2014 - Production (Filming on location).
- September 2014 - February 2015 - Editing.
- March 2015 - Rhode Island PBS premiere of five episodes.

Mr. Caserta established contacts with the local media for publicity. He created a website on the project that has been up and running for almost a year and can be found on www.harvestingrhodeisland.com. Mr. Caserta also photographed at the farms using the photos on the website and some in the episodes as B role.

All funds were used to produce five half hour episodes on the specialty crop farmers and their harvest.

Goals and Outcomes Achieved

- A. To enhance the competitiveness of Rhode Island specialty crop farmers against growers from outside of the state through marketing techniques.
- B. Provide an outlet for the promotion and marketing of local Rhode Island specialty crop growers by bringing the consumer to the farm by means of a television series.
- C. Provide the consumers of Rhode Island with the *locations of farms* in the state, the crops available for marketing, products harvested by nursery farmers, and farmers markets where they are sold.

D. Educate the public from young to old on the variety of specialty crops in the state.

Five episodes were filmed on location at Rhode Island farms that harvest a variety of specialty crops. Each episode was made up of interviews with the farmers totaling twenty-two in all. Farmers were selected according to the crops they harvest and their location in the state. The location where farmers market their products to the public (farmers markets, local retail markets, direct retail building on farm) was considered. Five episodes were produced instead of four and twenty-two people were interviewed instead of twelve. Filming took place at twelve locations.

Outcomes for this project were immediate and long lasting. The episodes premiered in March of 2015 prior to the spring and new harvesting and were aired an additional three times during the growing season. The episodes presented the residents of Rhode Island an insight to locally harvested crops, where to purchase them, and created an audience that were exposed to information in an educational format. This project has met all the established goals in the grant. Due to the strong quality of production a positive relationship has been established with the program director at Rhode Island PBS.

Consumers in the past have received very little information about local farming through television. Increasingly, Americans are abandoning highly processed foods in favor of fresh whole foods picked when they are ripe, tasty and at peak nutritional value and do not have to be shipped long distances. Many consumers want to know where their food comes from and how it is produced. The series has assisted in promoting a positive relationship with consumers who visit local farms and farmers markets. Rhode Island PBS also benefited by providing their audience with a new program with local interest.

Beneficiaries

According to Rhode Island PBS television as many as 7,000 - 10,000 people viewed each pilot per showing on television. The most difficult goal to achieve was gathering information showing quantitative results for direct sales increase. Farmers provided their calculated percentages. Qualitative results were less difficult to gather due to the large number of farmers interviewed. Consumers were given an insight to the workings operations of a farm provided the consumer with the insight that a farm is run just like any other business. The promotion and marketing of the farms on television enhanced the competitiveness against growers from outside the state.

The educated consumer is the best consumer and “Harvesting Rhode Island” was a new way of reaching out to the public and farmers. Using television as a medium and working with Rhode Island PBS was a successful way of telling stories and sharing information. The results show that the consumers embraced the project. The five episodes can also be used as an educational and teaching tool through the school systems. The number of people benefiting from this project was well over one hundred thousand.

Lessons Learned

It would have been an advantage if we included a few wireless microphones in the original budget, however the sound came out excellent and we had no real issues. The extra half hour episode allowed us to expand the farms and products that were included in the series. The staff enjoyed working with the farmers and their employees. They were very gracious in providing information and spending time with the crew. The members of the crew and I found this to be a very interesting and important project as did the farmers and public. In the future I would present the budget showing additional staff such as a person for sound correction. All the pricing was at a discount compared to the going rates in the industry and the budget worked without any problems. Scheduling was a bit difficult with some of the farmers because of their busy daytime activities but in the end things worked out well.

Goals and outcome measures were achieved. I feel fortunate that I was given the opportunity to produce a product that promoted the farmers and educate the public at the same time. I am also grateful to the members of the funding committee for allowing me to create something that was different from what they normally fund. This type of production needs to be embraced by DEM because of the important educational information that can be shared with the public about agriculture. There are so many farmers that harvest products in the state that the consumer is still unaware of and this project was an effort to bring about a change. Production could continue for a number of years without duplication.

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Additional Information

Summary of Survey /December 2015

The complete series of five episodes were broadcasted at least four times to this date and are still running on television. The story of Harvesting Rhode Island was told in six different newspapers and listed in a number of web sites.

Twelve questions and space for comments were sent to each farmer listed above.

The following is a summary of the answers to the questions. Comments came from the farmers who filled out the survey.

1. Q. How did Harvesting Rhode Island enhance the competitiveness of your business?
 - A. The individual farms that sell directly to the public all agreed that the episodes assisted them by greatly enhancing their business.

Comment: "The piece provided valuable exposure for us, garnered numerous

positive comments and inquiries from the public about our business, and resulted in increased sales”.

Q. Provide a percentage of increased sales.

A. There was a range from 2% to 20% in the answers. This was taken from the farms with direct public contact compared to the wholesalers in the nursery business.

Q. Has Harvesting Rhode Island provided exposure to the general public about your business through television and what type of feedback have you received?

A. Looking at 100% of answers collected 80% said that they received lots of new exposure and 20% receiving some new exposure.

A. The farmers all agreed that the feedback from the episodes was very positive at the 100% level.

Q. Has your business developed an increase in consumers that had not been aware of your business before it was aired on television?

A. About 30% of the farmers were unable to come up with an accurate percentage, while the additional 70% of the farmers felt that 5% to 15% would be accurate.

Q. What type of advertising have you done in the past and has television reached a new source of people in the community in relation to your business?

A. About 80% of the farmers have done no advertising in the past. The 20% includes brochures, flyers and trade shows for the nursery farmers. The farmers believe that the episodes reached out to a new source of consumers.

Q. Have consumers requested products from your business that were discussed on the episode and they were unaware that you sold?

A. About 50% said that 5% to 15% would be accurate in requesting products. The remainder 50% was unable to tell at this time. The three nurseries sell wholesale but one had an increase in sales due to the episodes.

Q. Have customers indicated that they were previously unaware of your business and location?

A. About 80% of the farmers believe that a range from 5% to 20% is accurate.

Comments: Nursery – “ Many people were unaware of the farms existence

in their own town. I kept hearing where are you. I didn't know Portsmouth have a sixty acre nursery".

"The story of our farm interested a lot of people. I was unaware people are so interested in history of families in their own town. When our farm was taken by eminent domain by the government and now the land is up for sale, people want us to get it back. Amazing response".

"I had many people who wanted to buy from us. But being a wholesale nursery I sent them to the retailers that I sell to. Many people wanted the plant we patented because they felt a local connection with the history".

"Traditionally we use trade shows. Being wholesale it limits your advertising to the general public. I think television opened the eyes to the consumers to the fact that farmers grow more than food".

Vineyard - "We have had very positive feedback. It is great for the public to know how much is entailed with running an agricultural operation. Especially when we are fighting to keep as much farmland productive in the ocean state".

Nursery – "Very positive. First an awareness of the fact we existed as a true business instead of a pretty site as they drive down the road next to our property. Second, their awareness of our size as an industry and how much we contribute to Rhode Island's economy. Third, their comments reflected a new awareness of the environment stewardship that they appreciated".

Q. Have consumers requested products from your business they learned about through Harvesting Rhode Island?

- A. General answer from farmers is about 10%. Most consumers were aware of some of the products that were sold at the farms.

Q. Have customers indicated that they were unaware of your business and location prior to watching your episode on Harvesting Rhode Island?

- A. About 60% of the farmers said that between 10% and 20% of people in the community were unaware.

Comment: "Absolutely, so many people had no idea that we had so much land in Portsmouth that was hidden. Many people drive by now just to see it. A lot of people had no idea that there was a third generation farm right in there own back yard".

Q. As a small business owner how effective and important is Harvesting Rhode Island being used as an educational program?

- A. About 10% said that the program was very effective and 90% believe that it is extremely effective and important.

Comments: Extremely effective. It presented my business in an entertaining fashion (story telling), which is the most memorable way to convey our “brand”.

“This sort of stuff is extremely important. Again, we want the consumers to know how much goes into our operation and to develop a relationship with the place so they will support it”.

“What is more rewarding for me however is to hear that the message about organic foods got through to people in a way they found accessible and succinct”?

“I think all episodes brought fourth an interesting look at specialty crops in Rhode Island. I found the other episodes were interesting, educational, and full of knowledge both historically and informatively”.

Q. Due to an increased exposure is their anything you would change in your Business?

A. About 50% of the farmers would like to advertise but don’t have the budget to support the endeavor.

Comments: “I would like the opportunity to continue to expose my business to the community, although I don’t have the time, resources, or skill to present it in a professional manner such as we seen on Harvesting RI”.

“Mostly adding crops”

“We are strongly considering a change in our advertising. We have already incorporated a link to Harvesting RI on our face book page and have received comments and thumbs up”.

Q. Is Harvesting Rhode Island important enough for specialty crop? growers businesses to continue the program?

A. The answers were 100% on having the program continue and expand.

Comments: “I think the local population is very interested in all things local, finally. PBS is definitely the right audience and we are trying to bring our operation to a broader audience with social media etc. “.

“It’s a great educational tool for supporting local agriculture”

“If by doing the television show helped our wholesale business I could only image the impact on retail venues. Absolutely without question it helps to educate the public”.

Q. Is it important for the USDA to provide funding for this type of? programming?

A. Farmers reported with 10% important and 90% very important.

Comments: “Yes, very important. This exposure would not have occurred otherwise”.

“Very important. It is extremely difficult to provide funds for something as comprehensive and educational as that. It is very important for smaller states whose agriculture is mostly specialty crops to get the support to encourage the public to support these small businesses”.

“USDA has an important impact on agriculture, this is a win-win situation”.

Q. Please relate some of the comments made to you about the show being helpful in educating the public about the farms and crops.

Comments: “Some people were very interested in the history of farms, others were interested in our product. Still others had no idea that without farms our land would be eaten up never to return”

“People did not realize the size of our market area. They did not realize how much time and effort it took for us to produce a crop. They did not realize how beneficial our products were for the environment. For some reason, people do not equate a “farm” with truly being a “business” that is profit driven and faces many challenges that other people face. And finally, just how extensive the weather impacts our business”.

These types of programs provide a vital role in disseminating information to the public concerning food resources in their communities, as well as providing valuable exposure and revenue generation to local farms and food related businesses”. “Many customers reported being unaware of our farm prior to this program’s airing – even those living nearby did not always know about it. Many of our crops are not widely known to the public – this program helped us to educate consumers about our products. We’ve received many positive comments from the public about the program, and feel that

this piece has generated both public awareness and increased sales for our business. We are proud to have been included in this series and feel it provides a service to the people of Rhode Island who value local businesses and local agriculture”.

Harvesting Rhode Island has it’s own web page that is filled with information on the project. It also contains photographs and the five episodes that are airing on Rhode Island PBS.

The link to the web site is: harvestingrhodeisland.com.

**FINAL REPORT
THE RI FARM TO CAFETERIA PROJECT AND FARMFRESH.ORG RI FARM
GUIDE**

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PROJECT SUMMARY

The RI Farm to Cafeteria Project addresses pressing issues in RI – farm viability and preservation of open space and the escalating epidemic of obesity. At a time when government farm programs favor large farms, small farms find it difficult to compete. In RI, despite these national trends and unfavorable economic conditions, farming is a growing industry. According to the 2007 Census of Agriculture, the number of farms in the state has grown from 858 in 2002 to 1,219 in 2007, an increase of 42 percent. Most of the increase has been among farms earning less than \$50,000.00 in gross sales. To continue this upward trend and for existing farms to survive and continue to grow, there is a need for RI farmers to expand new markets for their products.

FarmFresh.org is custom-built web software developed by Farm Fresh Rhode Island to map food system assets. When Farm Fresh began in 2004 with limited resources and almost no budget, one of the quickest, cheapest and most effective things to be done was the creation of an online, searchable, in-depth catalog of the Rhode Island specialty crop growers. The database started in 2005 with RI farm information from the RI DEM Division of Agriculture. It allows over 1 million consumers, farmers, chefs, potential farm interns, policymakers, town planners, journalists and other interested parties 24/7 access to local food information on the web for any purpose. That's 1 million people connecting with local specialty crop farmers and building a better food system. FarmFresh.org has other funding sources, that provide a match to cover the costs of the non-specialty crops on the site. Specialty Crop Block Grant funds support the portion of site used by specialty crop growers: the large majority of producers in the state.

As the database has become more popular, there have been increased demands upon Farm Fresh RI to provide comprehensive, accurate information for the growing number of constituents and users. Farmers have requested enhancements such as ways to further customize the look and content of their farm's listing. Consumers and chefs who look to source RI-grown food for its superior quality and the availability of unusual varieties are looking for profiles with photos and a way to connect in depth through media such as Facebook and Twitter. The quick evolution of technology necessitates highly developed website programming to adapt to mobile screens and new, faster connectivity lines.

PROJECT APPROACH

In order to achieve the project purpose of building demand for local specialty crops, the Farm to Cafeteria team has provided technical assistance to cafeteria food service providers and local farmers to make connections resulting in specialty crops on the menu at schools, hospitals, senior meal sites and pre-schools. We have also been working to build demand among cafeteria diners by providing educational promotion programs in classrooms and at senior meal sites.

In keeping with our work plan, the Farm to Cafeteria Coordinator has met with specialty crop farmers, food service purchasers and distributors to facilitate program implementation, promote working relationships and overcome obstacles to local purchasing. An annual Farm to School Stakeholders Meeting was held in March to discuss the challenge of local purchasing, the opportunities in the coming year and how best to work together to build the local food system. We have had multiple smaller group meetings as well as one-on-one meetings throughout the year that addressed the same subjects.

The Farm to Cafeteria Coordinator participated in the following recurring meetings to promote the Farm to Cafeteria project in the community:

- Monthly meeting with the Healthy Hospital Initiative (H2ERI) work group
- Monthly meeting with the Sodexo Providence Wellness Coordinator
- Bi-monthly meeting of the Providence Healthy Communities Advisory Council
- Bi-monthly meeting with a representative of the RI Healthy Schools Coalition
- Occasional meetings of the RI Food Policy Council Production workgroup
- Regular meetings with the Chartwells District Manager for RI East Bay schools
- Semi-annual meetings with the Aramark RI Food Service team
- Occasional meetings with The Children's Workshop CEO and Executive Chef

Last August, the Healthy Hospital Initiative work group took a field trip to Blackbird Farm in Smithfield, RI in an effort to better understand sustainably produced foods. The group of 21 RI hospital food & nutrition services professionals toured the farm and then had a discussion over lunch about the reality of starting to source more sustainably produced specialty crops for their hospital cafeterias and patient meals. The national procurement director for Sodexo unexpectedly joined the group and was able to advise the Sodexo attendees on how they might "push the envelope" on purchasing such products for occasions/events, even though such purchases may be outside their current allowable purchasing parameters.

Multiple meetings took place with Farm Logix on behalf of Aramark college/university and hospital purchasers over the past year. Farm Logix is contracted to seek local specialty crops for their Aramark clients in RI and MA. The technical assistance we provided connected them to Steere Orchards to discuss purchasing RI Grown apples as well as Ocean State Peeled Potato and Robert's PreCut Vegetables in Cranston to arrange for the purchase of lightly processed RI Grown specialty crops such as potatoes and butternut squash. Farm Logix continues to seek specialty crop growers to contract with in advance of the season to ensure availability of specialty crops for their institutional customers.

As demand for local and sustainably produced food increases among institutional buyers, more specialty crop producers are investing in high tunnels and hoop houses to extend their seasons. Farm to School participant Captain Elisha Steere Farm has recently built two high tunnels for season extension. The farmer also plants early and late season broccoli to include in Farm to School programs and Farm Fresh Veggie Boxes.

A statistical database of local purchases by RI schools continues to be maintained by the RI Farm to Cafeteria Coordinator. Due to the implementation of a bi-annual USDA Farm to School Census in 2012, data collection practices by RI Farm to School changed. Last spring we decided to align our data collection with the USDA Farm to School census. We sent out a survey out with the same questions as the USDA Farm to School Census. (In the past, detailed data on individual purchases was collected throughout the year from each district Food Service Director and their produce distributor.) Our survey on school food purchases for harvest season 2013 was answered by 18 out of 36 school districts. All of them reported that they purchased RI Grown specialty crops. Although the other 18 districts did not respond to the survey, it is known from conversations with the food service providers in those districts that RI Grown food was purchased. We discussed the response rate of the survey during our Annual Stakeholders Meeting, urging representatives to submit data to the current 2015 USDA Farm to School census. We endeavor to collect a consistent data set from those purchasers. We seek to expand data collection to include hospital, pre-school, college/university and senior meal site purchasers. This new data collection will begin later in 2015 as part of the USDA SCBG funded Harvest of the Month campaign.

A statistical database of local purchases by RI hospitals using the Market Mobile distribution system is maintained electronically by the Market Mobile system.

Farm to School newsletters are created and distributed on a monthly basis to over 260 stakeholders. Newsletters continue to be an effective way to publicize specialty crop availability and share best practices for serving and celebrating RI Grown in school meals.

Chef demonstrations, showcasing RI Grown produce, take place during Farm to School and Farm to Preschool education programs. We have recently incorporated cooking demonstrations into Veggie Box promotions as an outreach strategy to existing and potential clients.

A total of 193 education programs that integrate local agriculture and nutrition into existing classroom curricula, after-school programming and school garden programming were offered at schools and preschools between April 1, 2014 and March 31, 2015. Additionally, Farm to School hosted one health fair and three summer meals launch events with activities and presentations that highlighted local agriculture alongside the serving of RI Grown specialty crops in the meals. Fourteen classes and two summer groups, a total of 418 students, attended field trips to RI farms between April, 2014 and March, 2015.

A total of 4,825 students were able to learn about Rhode Island agriculture by gardening, cooking with and sampling specialty crops, playing interactive games, attending farms and otherwise participating in the variety of Farm to School experiences we offered. Students, teachers and administrators consistently offer positive feedback on our education programs.

We were able to exceed our target outcome of reaching 500 children with 60 education programs because we received a USDA Farm to School grant that funded 65 education programs and 10 farm field trips. We were also fortunate to have a summer VISTA to deliver summer school gardening programs between July and August. The USDA funding for education programs was exhausted by October 2014, however we continued to offer a limited number of classroom programs as the Farm to Cafeteria Coordinator's schedule allowed. We also partnered with YMCA out of school time at Pleasant View Elementary in Providence to offer an after-school "cooking club" focusing on specialty crops. The YMCA contracted with Farm Fresh and paid an educators time to host the programs. The programs have been so popular that they are now offered two days per week and every student enrolled in the program participates.

During the project period, URI Extension offices of Food and Safety coordinated complementary classroom and afterschool education programs. That partnership allowed us to increase our presence in schools while preserving our limited financial resources. As a partner in our USDA Farm to School grant, we collaborated to develop a comprehensive garden education program. Students learn the importance of growing and eating local specialty crops as well as the steps they need to take to be "food safe" in a series of programs presented by chefs, master gardeners and food safety specialists.

We have worked to measure the impact of our Farm to School education programs on students by conducting pre and post surveys regarding student familiarity with and willingness to eat RI specialty crops. These surveys were conducted in all of the weekly series programs we offered from March 2014-April 2015. We were challenged in obtaining good data from these surveys for a few reasons. Summer school and after-school programs are not attended consistently. Often we are able to obtain a pre-test or a post-test from a student, but not both. Initial survey results are indicated that our youngest students (K-1st grade) seem to enjoy circling *everything* on the page, making it difficult to measure any change between pre and post surveys. We compiled what we believe to be a "good" data set of 116 student's pre and post surveys from programs offered between April and August 2014. Those surveys showed an increase in the number of fruits and vegetables students would try, as well as an increase in the number of students who experienced gardening. 9% of the pre-surveys students who did not like cucumbers noted liking them on the post-survey, 10% went from not liking tomatoes to liking them and 12% who previously did not like blueberries in the pre-survey liked them in the post-survey. We also helped 24% of our participants to experience gardening for the first time ever. The challenges in surveying students have taught us the importance of very carefully monitoring each survey respondent as they complete their survey. Unfortunately this is not always realistic to accomplish in a busy classroom or afterschool setting, but we endeavor to do so whenever possible.

Farm Fresh piloted a "Farm to Senior" program in 2014, implementing successful Farm to School strategies in a similar way at RI senior centers. Working in partnership with the Division of Elderly Affairs, Farm Fresh targeted two senior meal caterers that serve a combined total of 40 senior centers. We agreed upon a strategy to promote RI Grown in the centers during meetings with the agency directors in Woonsocket, Blackstone Health

and the East Bay , then gained buy in from the chefs and distributors that provide the meals to those centers. Our two-pronged approach provided technical assistance to the caterers in the sourcing and serving of RI grown produce while raising awareness and promoting the meals to the diners. Farm Fresh hosted 11 activities at 9 centers, involving over 300 seniors in educational activities that promoted RI Grown produce. Seniors learned about our local food system, as well as the nutritional, community and economic benefits of supporting our local farmers. Sixteen different specialty crops were sampled during games and activities. We also offered specialty crops such as pints of berries, baskets of peaches, and various vegetables as prizes for game winners. Over \$4000 worth of RI Grown produce was purchased and served at the 40 different senior centers. Over 90% of the seniors surveyed believed the addition of RI Grown items to the menu improved their meal. Our Farm to Senior program will continue in the summer of 2015 with the same two caterers and three agencies. We hope to add Lindley Catering this year, which serves the Meals on Wheels program and West Bay Nutrition Program. Our goal is to have every senior center in RI serve RI Grown specialty crops.

Regarding the activities that promote the online Local Food Guide: the target for website hits was 1,800,000 per year, or an average of 150,000 per month. We have recorded a total of 1,516,617 hits from April 1, 2014 through March 31, 2015, or an average of over 126,000 hits per month. This indicates that the website is still receiving strong traffic, but not as much as desired. The Local Food Guide is currently under-going a coding update. When this update is complete, a new marketing campaign for the service will be launched.

In this period, over 120 specialty crop farms have independently updated their pages on the Local Food Guide, with corrections, photos and narrative. Farm Fresh staff members have updated another 210 specialty crop farm listings.

Mobile website visits have increased 23% during this time period. Use of the mobile site, while up significantly, is not up as much as planned. This possible reflects an error in estimation of usage growth. It also brings up the question if a mobile “app” would be more popular and effective way for people to find local food through their mobile devices. After the main database is redone, this possibility will be explored.

In the period 4/1/2014 – 3/31/2015, nineteen blog posts have been made, as well as 218 tweets, 280 Facebook posts. Facebook likes have gone up 1,500, to a total of 5,846 in April 2015. Online activities are a low-cost and effective way to promote locally grown specialty foods and Farm Fresh has been taking advantage of this technique.

PROBLEMS AND DELAYS

As noted in the interim report and above, the Farm Fresh.org website usage, while high, is not as high as predicted, particularly with the mobile device statistics. Farm Fresh will work to address this with a site redesign in 2015-16, with a possible mobile application developed.

GOALS AND OUTCOMES ACHIEVED

The RI Farm to Cafeteria Project is proud of our work to achieve the goal of helping Rhode Island students learn about local agriculture, nutrition, food safety and the benefits of supporting local farms in classroom, after-school and summer programs. We were able to mimic our success in the schools by adapting our strategy and do promotion in Rhode Island Senior Centers. Our Farm to Senior pilot project was successful in engaging diners in the learning and excitement of local foods. We will continue to offer Farm to School education programs and Farm to Senior activities to keep our consumers engaged and increase their demand for local foods on their cafeteria menus.

Schools in Rhode Island have demonstrated a commitment to supporting the livelihood of local farmers through the purchase of their crops. One shining example of this commitment is by Sodexo Providence. In the past year, Providence has negotiated a new school food service contract that prioritizes the purchase of RI Grown specialty crops. The produce purveyor contracted by Sodexo sources from many RI, CT and MA growers, including Pezza Farm in Johnston RI which dedicates about 15 acres of their farm to grow specialty crops for Sodexo schools. Early reports are estimating that almost 20% of the fresh produce purchased by Sodexo Providence is locally sourced.

FarmFresh.org, the online Local Food Guide, has a quiet, but profound, effect on consumer's ability to participate in the success of local specialty crop farmers. Over 1.5M users each year utilize the website to find local specialty crop growers where they are, using an interface that is comfortable and effective. The technology associated with the internet, including apps for mobile devices, streaming video services and social media, is constantly evolving and requires high-level attention to ensure continued relevance. Farm Fresh's software developer provides this monitoring, as well as updating normal functionality and managing user updates. FarmFresh.org is a powerful asset map of the local food system, and is an excellent platform to build from for future site updates.

Project Beneficiaries: Project beneficiaries for these activities include

1. Local specialty crop growers who are able to sell their produce to schools and senior centers. These are steady customers, which allow these local growers to expand their production or dedicate crops in the field to these end users.
2. Institutional cafeteria consumers, such as students and elders. These communities benefit greatly from the nutritious types of fruits and vegetables grown locally. The farm to school and farm to cafeteria programs persuade purchasers to put these tasty specialty crops on the menu, and educate eaters about the nutritional and economic benefits of consuming locally grown produce.
3. Local specialty crop growers whose customers, or potential customers, are able to find them through the local food guide resources on Farm Fresh's web portal. People expect to be able to "Google" what they want to find instantly and Farm Fresh's local food guide gives Rhode Island specialty crop growers this kind of Web presence, with no work or cost to them.

Lessons Learned:

1. Congregate meal sites for seniors and disable adults are great purchasers for locally grown specialty crops. Their meal volume is not as large as that of public schools, and this lesser volume seems to make it easier for them to add local farmers into their value chain. The participants in

the meal sites welcome the additional of the fruits and vegetables to the menus and are generally very engaged with the education programs.

2. Evaluating program efficacy with young children can be very challenging. Innovative methods for gauging learning and engagement with teachers are two likely strategies for increasing the ability of programs to evaluate their results. The National Farm to School Network has numerous resources on this topic, which we have begun to research and implement.
3. A online resource where users can find information on how to find local specialty crops is a baseline digital presence. It is necessary to stay abreast of trends and new tools for users to locate and interact with this information. Farm Fresh has worked with Brown University student interns to update and review the online Local Food Guide, and has sought their feedback on its usability and relevance. Farm Fresh is investing additional resources in 2015-7 to improve the user interface for the site and will look to enhance the functionality.

**Title: Developing African Vegetable Markets in
Providence/Pawtucket Armory and Winter Farmer's Market & Corner
Store Markets in Low income Neighborhoods
Final Report for Funding received from RI DEM for Specialty Crop
12-25-B-1694**

Initial purpose of the project: African Alliance of RI (AARI) proposed the development of 'African Vegetable Markets' within pilot corner stores in African/Latino neighborhoods in Providence/Pawtucket low-income neighborhood.

AARI developed new African vegetable markets and customers in corner store and at Armory Farmer's market and also Winter Farmer's in Pawtucket with "mapping partners" (appendix). Market demonstration projects began mid-year 2014 and continue through March of 2015.

Rhode Island is home to many from the continent of Africa. Today, there are over 75 thousands Africans from 40 African countries living in Rhode Island. These African households have little access to African vegetables and often travel to Connecticut or New Jersey to make 'mass' purchases for their communities. In 2009 AARI began growing African vegetables on two parcels in Providence, initially for household use, but in 2011 began a successful retail sales operation at the Armory Street Farmers Market – in fact, the African vegetables were many times purchased by a broad cross-section of ethnicities.

After the June 29, 2014 cooking demo and tasting at the corner store on the corner of Warrington and Broad St Providence, it became clear that it would be difficult to collect sufficient data at corner stores. The work group realized cooking demo at farmers market would be an excellent idea, because it provides access to diverse crowd for the food education and tasting, access to larger crowd and data collection. We would be able to promote this corner store by directing customers to the stores

Summary of Activities & Tasks

- Created the Work Group made up of 3 chefs and an assistant; Nutritionist, health professional, intern, staff, volunteers (4 of them at the event) and head of African Alliance of RI (AARI). Worked with consultants every aspects of the project.
 - The Work Group became the planning and implementation committee.
 - The committee met very frequently and used technology to our advantage- brainstorming and figuring out the logistics and possible partners. Partners included corner stores, City of Providence Environmental Justice, Bryant University and Brown University.
- The group decided to host cooking demonstration, nutrition education and tasting:
- Cooking demonstration and tasting at the corner store on Warrington and Broad Streets
 - Cooking Demos at Armory farmer's Market –Armory market on Cranston St Providence- demography- Latinos, Africans, African Americans, Haiti (totals about 85%; others 15%)
 - Collected data which confirmed the demand for the fresh vegetable and the accompany recipes.
 - Cooking Demos at Winter Farmer's market at 999 Main St Pawtucket -demography composition – 96% Caucasians; 4% others, in a predominantly Latino, Portuguese Cape Verde & other Africans community. Collected data which confirmed the demand for the fresh vegetable and the accompany recipes
- This event was so successful over 445 people visited our stand to watch the cooking demo, learn about AARI, ask questions, tasted food and the drink.

Overall scope of the project did not benefit any other commodities except specialty crop. The funds were used solely to enhance the competitiveness of specialty crop

Overall Role played by partners & others

- Outreach, Promotions at their Stores, invited friends and families.
- Flyers and Recipes were distributed at their stores, churches.
- Because local participation is essential to growing and marketing the specialty crops, the work group worked with some neighborhood store owners, churches and community

organizations and promoted at AARI market stand every Thursday at Armory farmer's market.

- Engaged market staff and community volunteers that are knowledgeable and culturally appropriate ambassadors for promoting the cooking demos and nutritional and culinary benefits of the specialty crops.
- Additionally, AARI collaborates with Fresh to You, Mobile fresh vegetables to you and new volunteers from Brown University.
- Three local certified chefs also support this project and help with education and cooking demonstrations and product development at Armory Farmer's Market in Providence and Winter's Market in Pawtucket.
- Partners also engaged social marketing including "take 10" that is one calls ten of their friends and families inviting them to the cooking demo and tasting.

Completed activities to achieve performance goals and measureable outcomes: With Specialty Crop grants funding, AARI was able to accomplish the following

- Three certified chefs and Life span nutritionist led the cooking demo and nutrition food education. Consultant collected data and submitted its analysis of the data. The volunteers, staff and board of director of AARI worked diligently with the chefs, customers and the general public to make this a pleasant experience for the customers
- AARI has expanded its customer base, marketing and sales operations at the local Farmers Markets and created an innovative model, through collaborations with neighborhood ethnic markets, to provide in-store including cooking demonstrations in the markets where people shop for their native foods.
- AARI in partnership with Brown University developed grinded okra that can be used as a "thickener" and a "dip" product made from one of our vegetable and nutritional properties of green and ripe plantain
- Uncovering the demographics of who shops at the farmers market, and who purchases African vegetables from AARI.
- Determining if people are interested in purchasing fresh produce and healthy foods, and more specifically, is there an interest in purchasing fresh African produce.
- Assessing if people are experiencing difficulty accessing fresh, affordable produce, i.e. if there is evidence of food insecurity in respondents.
- Finding out where people look for their fresh produce, i.e. do people prefer to shop at corner stores or farmer's markets?
- Assessing the impact of the demonstration and tasting – was the cooking demo enjoyed by the participants? Was the demonstration informative? Was it an effective way to showcase African produce?
- Increased supply and purchases of specialty crops in the African/Latino communities
- Creation of African vegetable markets in select stores (on-going) and at the Farmer's markets in African and Latino neighborhoods
- Enhanced ability to engage in agricultural research
- The cooking demonstration at the Armory was very successful, and over three hundred people had the opportunity to learn, taste and buy the specialty produce. Participants at the Armory Market represent a diverse cross section of the many of the ethnic communities in Providence, especially Africans, Latinos, African American and Haitians

- Winter market cooking demo, tasting and nutrition food education was a major successful beyond our expectation- 445 people visited with us.
- *Cooking Demo Video clip at Armory Farmer's market:*
Also a link: <https://www.youtube.com/watch?v=hpBCDpOWx5s&feature=youtu.be>
a video clip with Winston Guerrero (Latino Chef)at the cooking demonstration –
- *Cooking Demo Video at the Winter Farmers Market, Hope Artiste Village. This video link can be found on YouTube at* <https://www.youtube.com/watch?v=KWTnbXwKlrY&feature=youtu.be>
African vegetables are now many times purchased by a broad cross-section of ethnicities.

Other Project Benefits: The investment from DEM in this project has already had important positive economic and social impacts on the growers. One of the African growers has been able to rent a half-acre lot from Urban Edge Farm, where she also has access to a greenhouse. She will have a larger space this year at the Armory Farmer's Market and plans to begin selling fish as well as the African vegetables. Due to the success of her project, she plans to hire her daughter to work with her this year. She is eager to begin training on season extenders and preserving and storing her products, which she will sell at the Winter Farmer's Market in Pawtucket. Through this investment, she will be able to benefit from technical assistance and learn how to develop and manage a business. This entrepreneurial woman has tremendous potential for growing her small business and is enthusiastic about having access to additional land.

Another grower has shown strong leadership skills and is proficient in several of the African languages spoken by other growers. He has provided interpreting for training sessions and helped the other growers expand their knowledge of sustainable growing practices and marketing of their produce.

As with earlier immigrant and refugee groups whose ethnic foods are produced widely in our state, the African and Caribbean specialty vegetables will enrich Rhode Island's agricultural diversity and bring new, highly nutritional and exciting cuisine choices to markets that serve the general public while improving earned income and food security for low-income families in the growers' communities.

Project accomplishments

- AARI serves 25 families weekly at the Armory Market in Providence during the summer months.
- After the cooking demonstration on July 24, 2014 at Armory Market, it increased to 36 customers per market session. The project improves nutrition and food security for low-income and refugee families in South Providence, helps low-income farmers develop business, marketing and financial management skills, and educates the public about new types of nutritious food that brings culinary diversity and new experiences to the community.
- Some of the nutrition established is now been promoted as part of African Health Summit – how the doctors can prescribe these vegetables as part of care for diabetic patients.
- The primary beneficiaries of this Project are African families in the Providence and Pawtucket communities – of which we estimate there are above 10,000 African individuals.
- Secondary beneficiaries would be Hispanic/Latino families in the Providence and Pawtucket communities – of which we estimate there are 68,000 individuals in Providence alone. we have developed a new customers for these vegetables among other ethnic groups who were excited to learn about new types of local vegetables with excellent nutritional characteristics.

- Households and individuals who live within the demonstration neighborhoods of Providence have the opportunity to purchase specialty vegetables that would otherwise not be available to them.
- As AARI specialty crops marketing efforts have expanded, we have been invited to participate in farmer's markets in other parts of the state, such as Scituate, RI and Hope Street market.

This project makes it possible for the African farmers to increase their customer base.

- The knowledge that the specialty crops have potential to further community and economic development for these urban farmers has translated into efforts to seek additional land for production and expand the amount of produce they can offer for sale.
- The farmers have discovered that there is a high demand for their crops, and that the specialty vegetables, including ewuro, efo Tete, gbure, garden eggs, cassava leaf, hot pepper varieties, spinach varieties, amaranth, sweet potato greens, are a welcome addition to Rhode Island's ethnic food markets.

Lessons learned from the 2014-2015: This is a "work in progress." We learned many lessons during the funding period of the cooking demonstration at the corner store and at the Farmer's market. Some of the immediate challenges at corner store include

- The need for a larger customer base
- Marketing/growing infrastructure and equipment need to be improved
- We need to work on streamlining the distribution system
- For effective marketing, we need to consider the cost of producing and the affordability of specialty produce, especially in very poor neighborhoods
- Difficulty collecting data at corner stores
- We were unable to meet the demand for the specialty produce at the Farmer's Market, which made it difficult to schedule regular delivery to the participating corner store.
- We learned the need to have a well-coordinated delivery system – to deliver to individuals, restaurants and corner stores.
- The level of customer demand confirms the need to increase the supply and distribution of our produce. We need to work to secure additional growing spaces that are large enough to grow more vegetables to meet the demand for this produce at the farmer's market and corner stores.

From data collected at Winter farmer's market:

- There is a great demand for fresh produce generally and African vegetables specifically at the Winter Farmers market.
- There are concerning trends that indicate both racial and geographical disparities within the community regarding healthy food access. The non-Caucasian communities are absent at and in the Farmers market and they are most likely to face difficulty accessing fresh produce.
- Interviewees were generally very interested in learning more about the African vegetable, and recipes, which indicates that AARI could pursue an entrepreneurial project related to the shoppers' interest and demands, successfully.
- Future cooking demonstrations at Winter market should include vegetable sales stand for a one-stop shopping experience

Planned Work with URI- Support agricultural research – In order to meet the growing demand for several common African vegetable crops, the University of Rhode Island will work

directly with Providence growers of African vegetable crops and the African Alliance of Rhode Island in order to:

- Carry out crop production research at both the URI Agronomy Research Farm and on Providence-based urban farms for the purpose of increasing yields per square foot
- Assist urban African growers in construction and use of season extension structures and practices, two for each of three locations

Additional Information.

The Work Group met several times to plan the cooking demonstration event at Winter Farmer's

Market in Pawtucket. The majority of customers at Armory Farmer's Market in Providence were Africans, Latinos, Caribbean's and a small percentage of Caucasians while 96% customers at Winter market are Caucasians. This is reflected in the data collected at the cooking demonstration at Armory Farmer's Market summer 2014 in Providence as compared to data collected at Winter Farmer's market in Pawtucket. The Winter Market (customers 96% Caucasian) is located at 999 Main Street in Pawtucket predominantly communities of Africans, Latinos, Portuguese and Cape Verdeans.

Work group

The work group was made up of thirteen as follows

- 3 chefs- Latino, Caucasian and African plus 1 assistant chef
- 1 Life Span nutritionist
- 1 African grower
- 2 AARI Board members
- 3 Part-time Staff
- 2 Student Intern from Johnson & Wales
- 1 Designer- Promotional material, brochures banner etc

Partners

- 2014 Farm Fresh RI
- City of Providence- Health Communities
- Brown University, Environmental department
- African Alliance of RI(AARI)

Create African vegetable markets in select stores and Farmer's Market in African and Latino neighborhoods

This is "work in progress". We learned many lessons during the phase 2 of the cooking demonstration at the corner store (attached Mapping customer) and at the Winter Farmer's market. Some of the immediate challenges at corner store include i) Needs larger customer base (difficult to collect data at corner store) ii) Infrastructure and equipment iii) Distribution system iv) Cost/affordability –yet to determine a breakeven point at corner store. The customer experiences (data collected) confirm the need to increase the supply and distribution of our produce. We are currently exploring some ways to grow more vegetables for sale at the two markets and corner stores-i) Access to additional land large enough to grow ii) Efficient production practices.

Planned Work with URI- Support agricultural research – In order to meet the growing demand for several common African vegetable crops, the University of Rhode Island will work

directly with Providence growers of African vegetable crops and the African Alliance of Rhode Island in order to:

1. Carry out crop production research at both the URI Agronomy Research Farm and on Providence-based urban farms for the purpose of increasing yields per square foot
2. Assist urban African growers in construction and use of season extension structures and practices, two for each of three locations
3. Educate and persuade urban growers to adopt a minimum of 4 out of 11 production and season extension practices which can contribute to increasing yields per square foot

Cooking Demonstration at Winter Farmer's Market Pawtucket,

The cooking demo at the Winter Farmer's Market Pawtucket was very successful. This is evident in the survey report.

AARI Cooking Demo – Survey Winter Farmers Market Hope Artiste Village, Pawtucket, RI. Saturday April 28, AARI

Introduction

The African Alliance of Rhode Island conducted a Cooking Demo and tasting at the Winter Farmers Market, Hope Artiste Village, Pawtucket, RI, on Saturday April 28. AARI, with Chef Dave Rocheleau, Chef Winston Guerrero and assistance Julius Searight, showcased how to make a quick nutritive and delicious meal, using locally grown African produce. During this event, AARI conducted a survey of customers and walk-through customers at the Pawtucket, Hope Artiste Village Farmer's Market.

AARI engaged 140 attendees (a significant number) at the Farmers Market and at the Cooking demo event. Of the 140 people AARI engaged, 96 people (65%) filled out the 10 questions survey presented. This survey was aimed at achieving the following objectives:

- Uncovering the demographics of who shops at the farmers market, and who purchases African vegetables from AARI.
- Determining if people are interested in purchasing fresh produce and healthy foods, and more specifically, is there an interest in purchasing fresh African produce.
- Assessing if people are experiencing difficulty accessing fresh, affordable produce, i.e. if there is evidence of food insecurity in respondents.
- Finding out where people look for their fresh produce, i.e. do people prefer to shop at corner stores or farmer's markets?
- Assessing the impact of the demonstration and tasting – was the cooking demo enjoyed by the participants? Was the demonstration informative? Was it an effective way to showcase African produce?

Accompanying this questionnaire was a 2-hour observation of the AARI vegetable stand at the Winter Farmers Market, Hope Artiste Village, during which the traffic at the stand was studied in order to determine:

- The demographics at the Farmers Market and
- Knowledge about African vegetables, interests in African recipes and access to fresh food.

There are some factors that could not be assessed by this survey. These include:

- Assessing if the cooking demonstration will lead to a diversification and /or increase in new customers especially those who reside within walking distance of the neighborhood of the AARI farm stand.
- Whether the vegetables used in the cooking demonstration have become more popular in the weeks following the April 28th cooking demonstration.

Questionnaire:

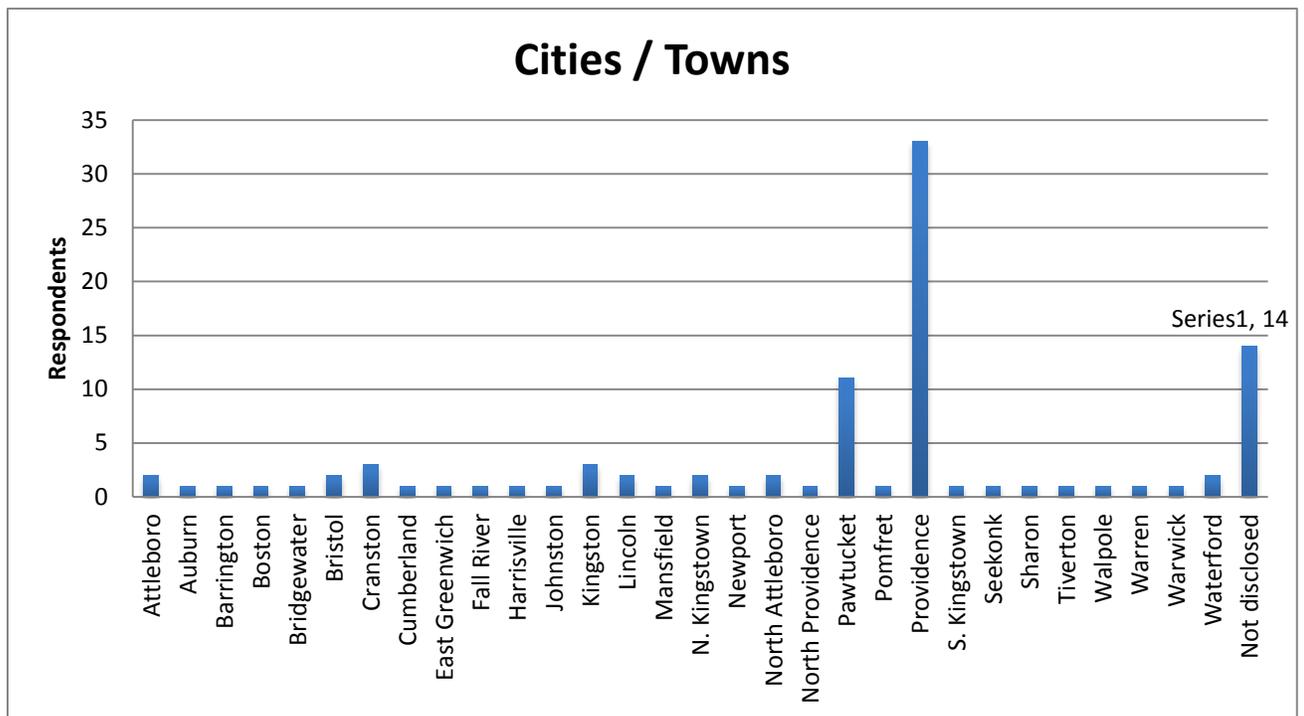
City
Neighbourhood
State
Gender
Ethnicity

	YE S	M AY BE	N O
Do you normally shop at Farmers' markets for your groceries, vegetables, etc.?			
Do you buy African vegetables, such as the ones used in today's cooking demo?			
Do you find it difficult to locate affordable, fresh produce in your local area?			
Did you know about the African vegetable stand at Armory Farmers Market, every Thursday at 3:30 – 7:00 pm?			
Did you find this Cooking Demo helpful and informative?			
Would you prepare any of these recipes at home?			
Does shopping here for your vegetables and others foods increase access to fresh food?			
Does shopping here for your vegetables and others foods provide any health benefits to you?			
How did you hear about the AARI Cooking Demo?			

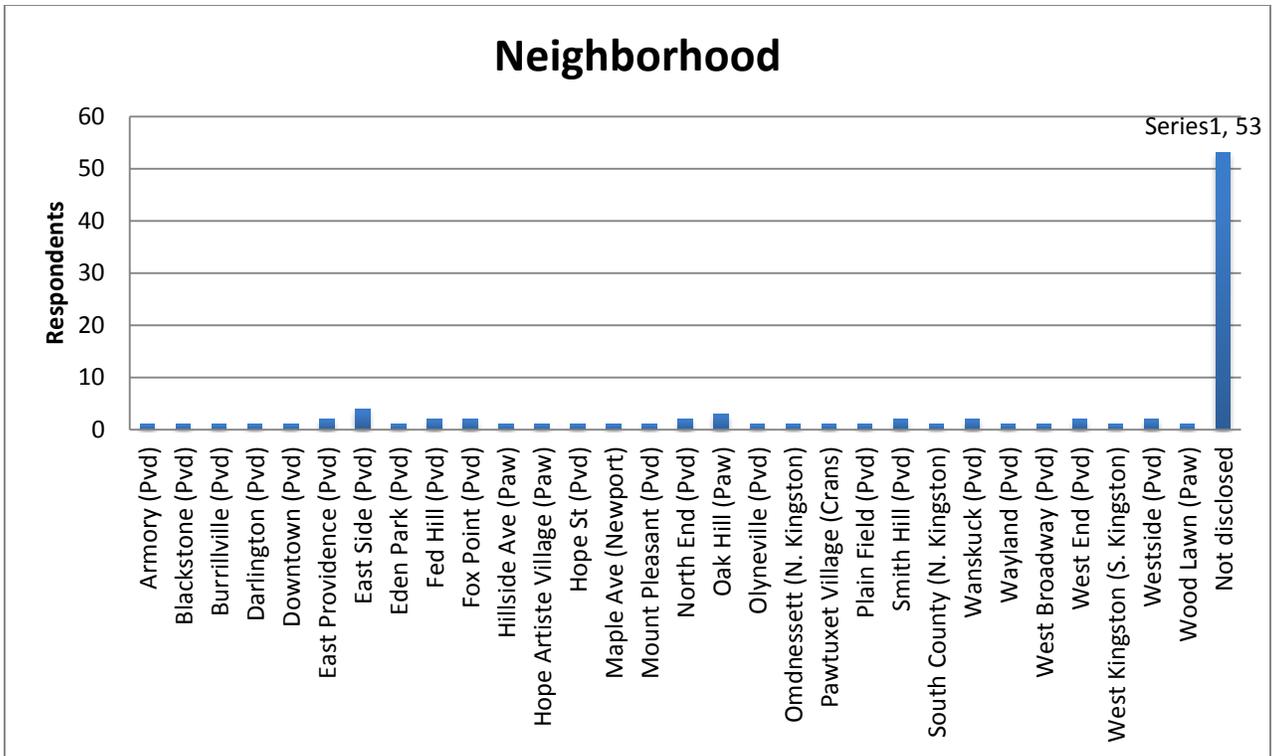
Would you like to learn more about AARI's Cooking Demo,
 0 community garden and vegetable stands?
 Email: _____
 Phone: _____

Questionnaire Results:

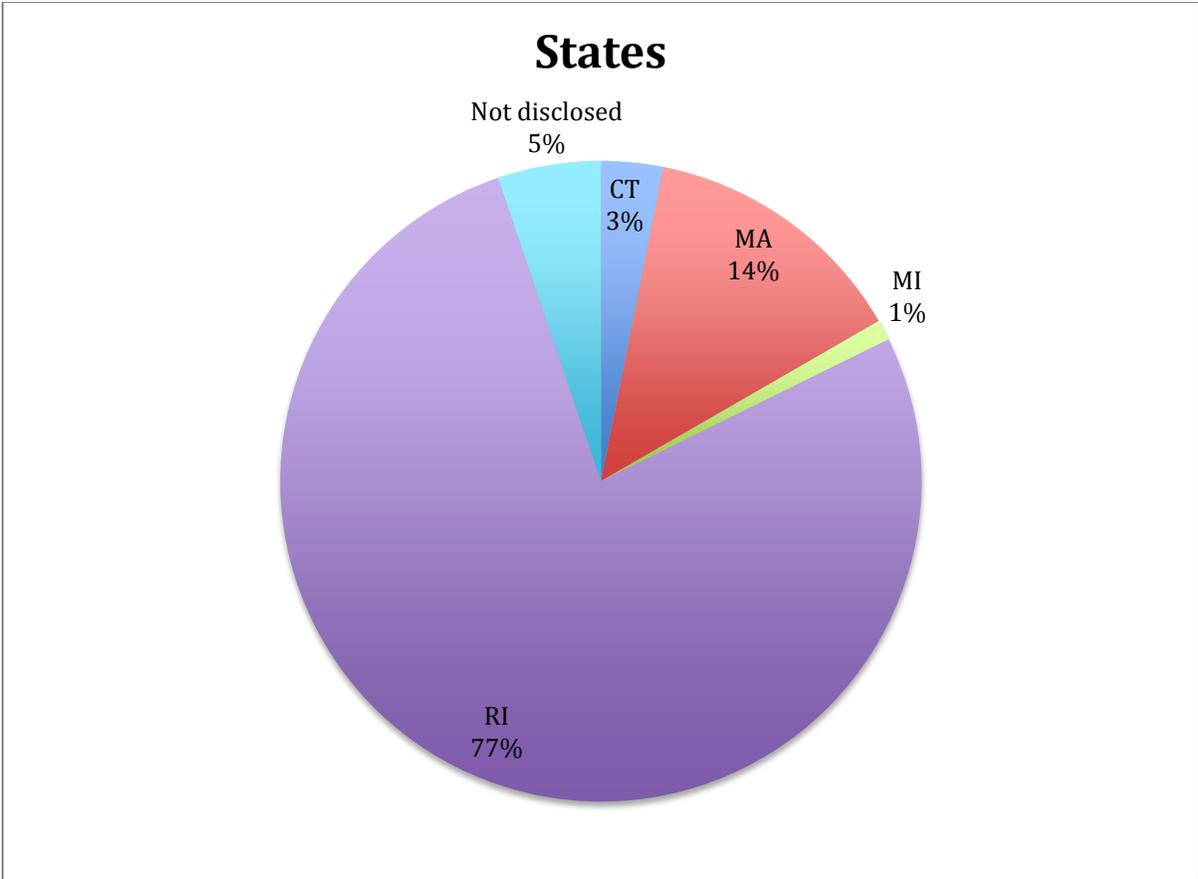
The following charts illustrate a basic breakdown of the 96 respondents, based on the following factors:



Cities & Towns: The respondent self-identified as being residents from 13 cities and town, from 4 states. The overwhelming majority (34%) of our respondents came from Providence and 11% from Pawtucket, which a small number from Cranston and Pawtucket, and a single respondent from Lincoln. 14 respondents did not indicate their town of residence.



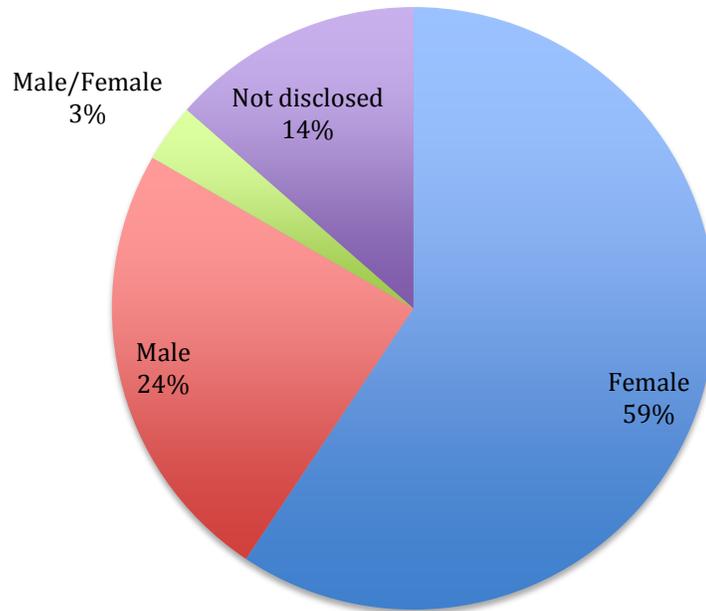
Neighborhood: A majority of respondents (55%) did not indicate their location/neighborhood of residence. Of those who did, the majority of respondents resided in Providence, on the East Side, Federal Hill and Fox Point.



States: The overwhelming majority (77%) of our respondents came from Rhode Island and 14% from Massachusetts, which a small number from Connecticut and Michigan. The 14% of respondents from MA tells us that people are travelling 10 miles or more to shop at the Framers market.

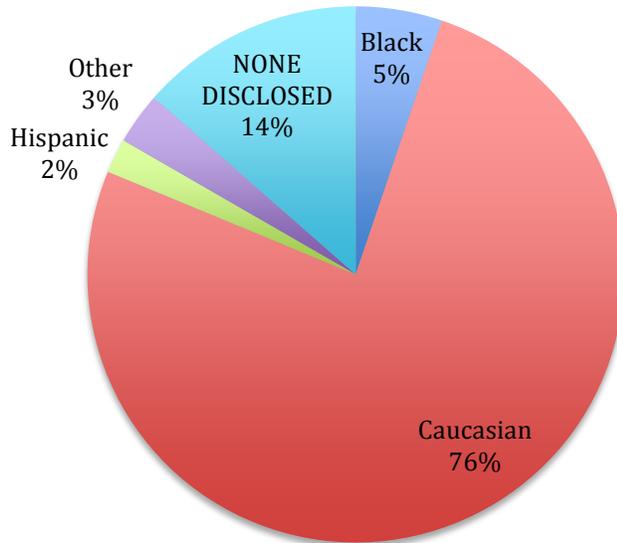
We may assume that they are travelling in need for fresh and healthy produce. Respondents from the States of CT (3%) and MI (1%) reported to be visiting relatives and friends in RI. 5 respondents did not indicate their state of residence.

Gender



Gender: The majority of our respondents were female (59%), 24% were male. 14% declined to indicate their gender and 3% were couples that filled one survey together. This chart leads us to deduce that females shop more at the Farmers market, but the survey did not track what, if any, are the driving factors for the huge gap between the genders.

RACE

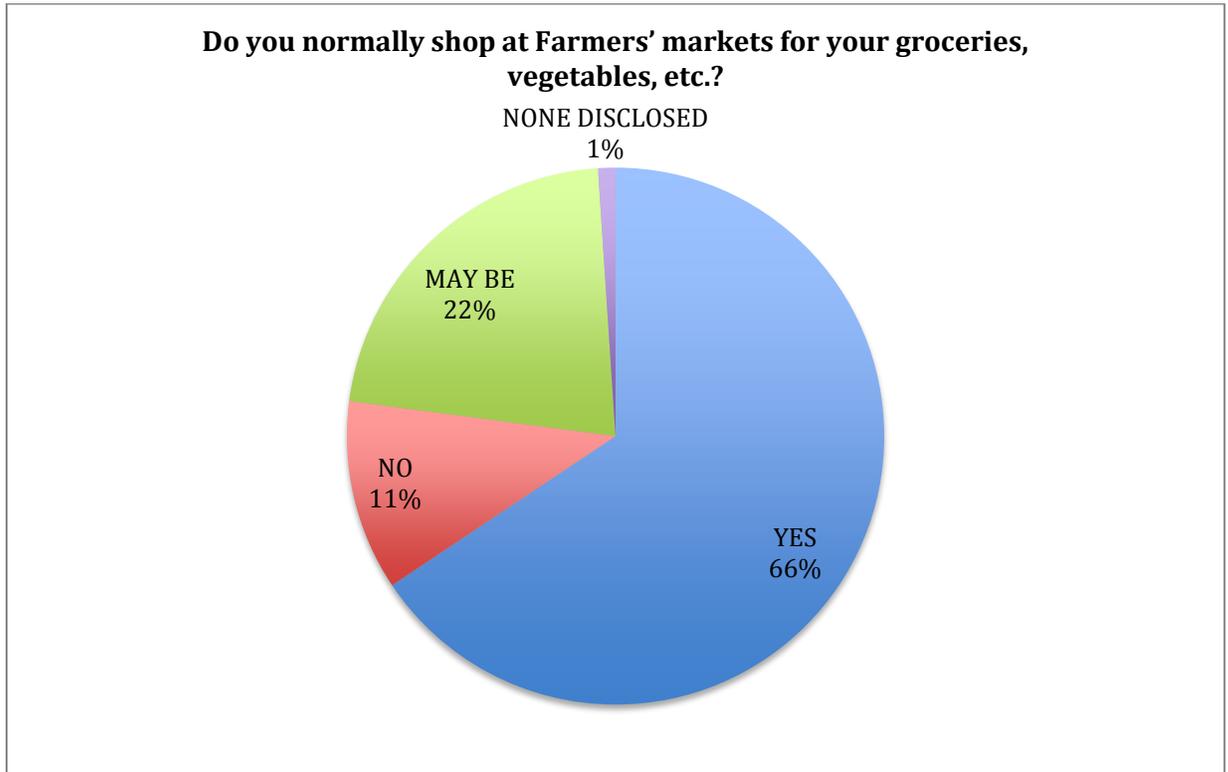


The largest racial demographic of our respondents were Caucasian, at 76%. The Black/African/African-American grouping at 5% and the Latino/Hispanic were at 2%. 3% indicated "Other" and 14% of respondents declined to indicate their racial or ethnic identity. If we combine the total non-Caucasian percentages (24%), we still find that the numbers are still very low compared to the demographic data of Providence/Pawtucket residents.

This may indicate that aside from Caucasian, predominantly female, non-Caucasian are not aware of this opportunity to shop for their fresh produce at the Winter Farmers market or these demographic do not readily connect with the produce sold at this location. It also may indicate that there is insufficient outreach to other communities regarding the Farmers market. These assumptions will need to be investigated further.

QUESTIONS

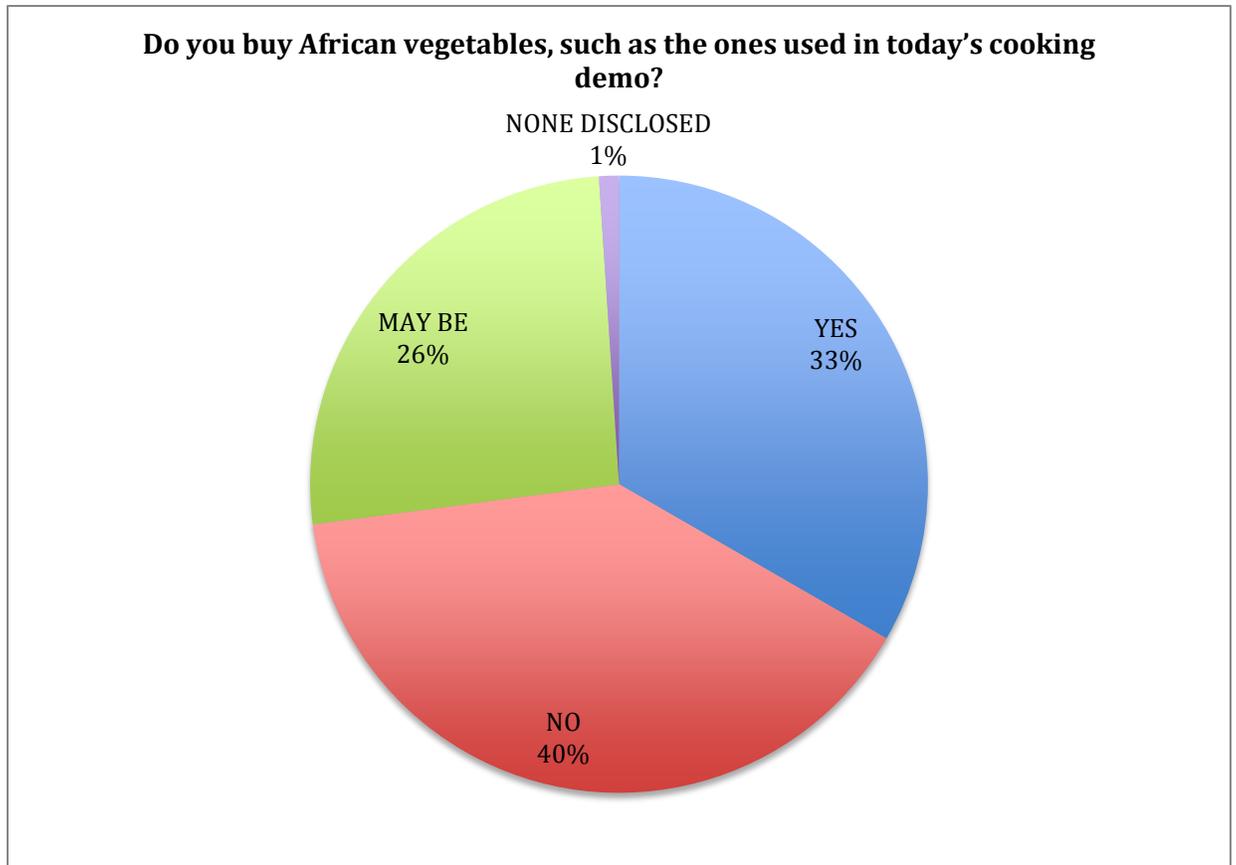
Question 1 “Do you normally shop at Farmers’ markets for your groceries, vegetables, etc.?”



A majority (66%) of the respondents answered “YES” and 11% answered “NO” and 22% answered “MAY BE”. 1% of the respondents did not answer the question. If we add-up the “YES” and “MAY BE” answers, we find that the vast majority of the respondent shop at the Farmers Markets for groceries and vegetables.

This indicate that majority of shoppers responding to the survey are generally familiar with the shopping experience at the Farmers Market and shop here as a routine, while there is a 22% of shoppers considering shopping at the Farmers market as a routine activity. This assumption leads one to believe that there is potential customer growth within the Farmers market sector.

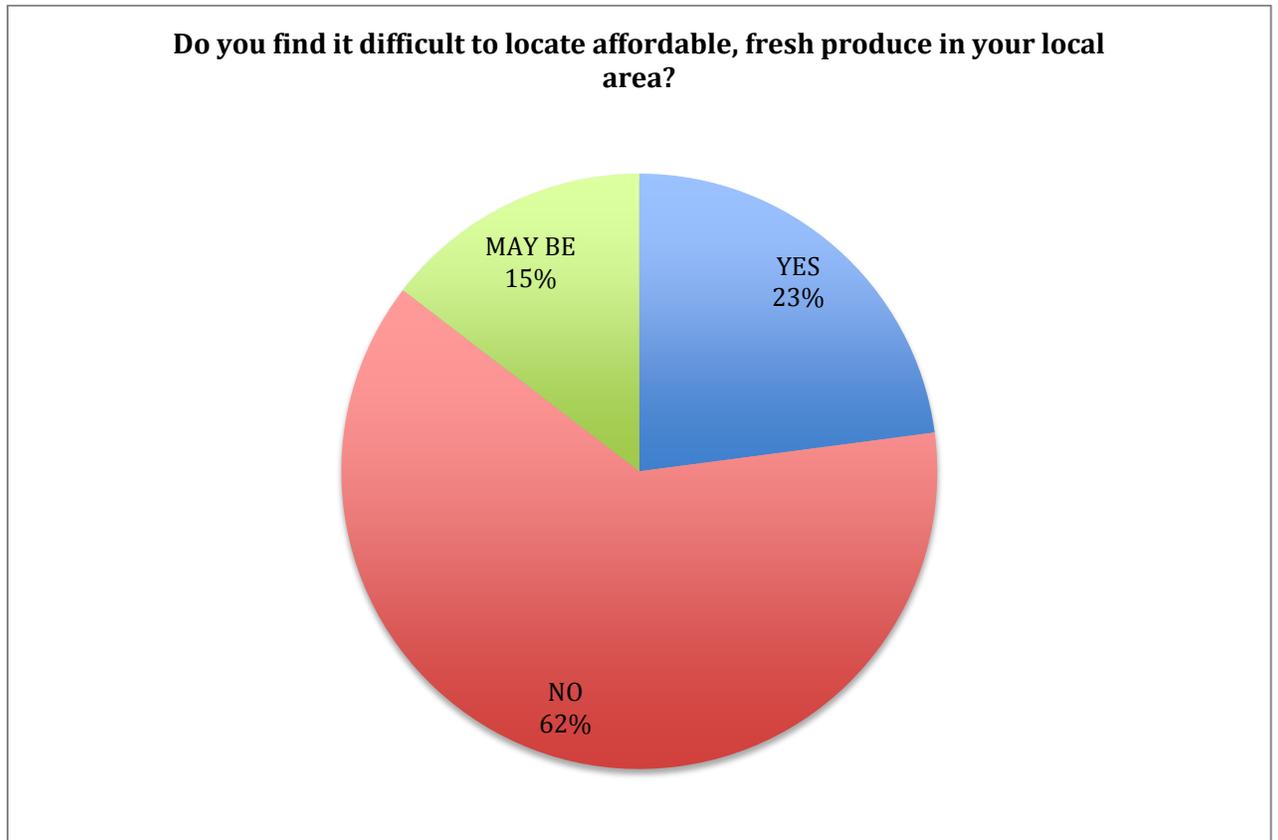
Question 2: Do you buy African vegetables, such as the ones used in today's cooking demo?



On this issue, the spread was fairly balanced. 40% of the respondents answered "NO" and 33% answered "YES" and 26% answered, "MAY BE". 1% of the respondents did not answer the question. If we add-up the "YES" and "MAY BE" answers, we find that the vast majority of the respondent are familiar with the African vegetables that were used in the cooking demo.

This indicator may speak more to the shoppers familiarity with African dishes, how they are prepared and preferences to explore new cuisines. It also slight shows that there are a good number of non-African shoppers familiar with African vegetables or are willing to taste.

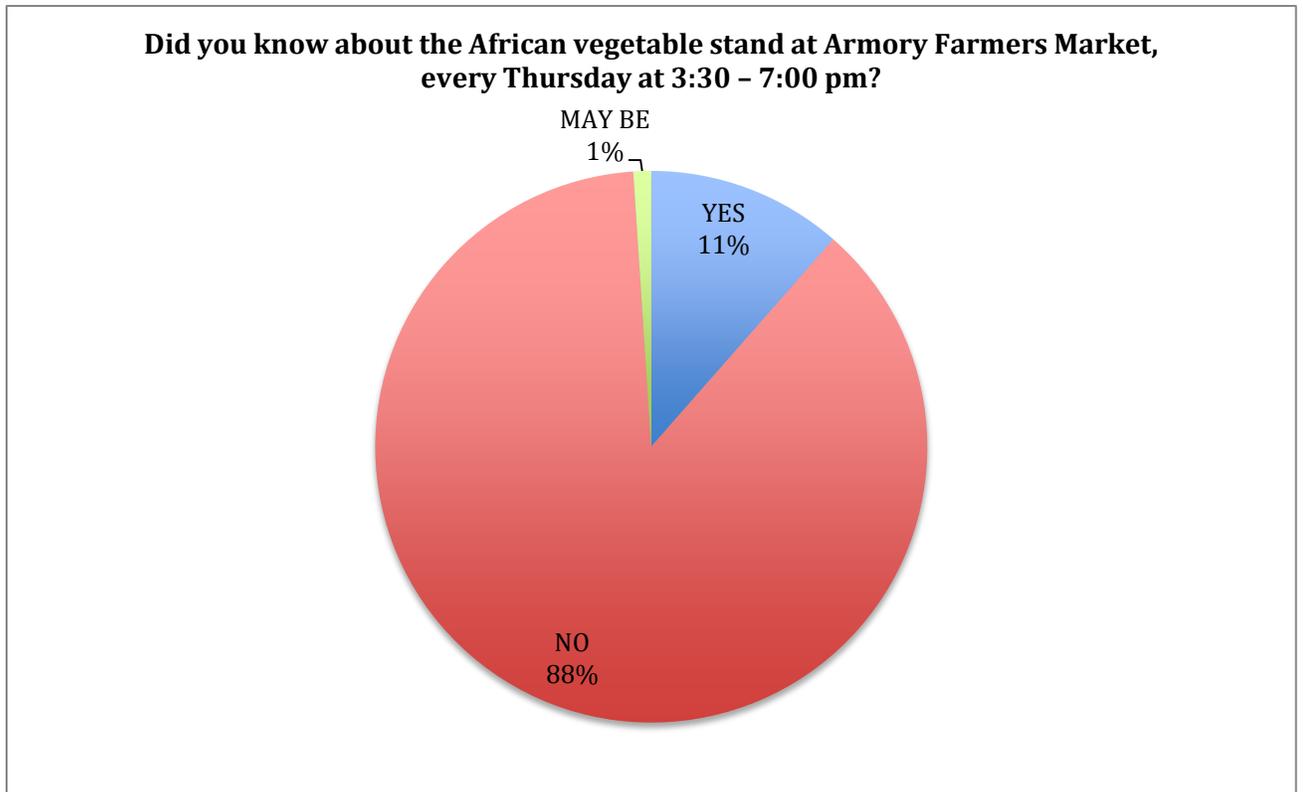
Question 3: Do you find it difficult to locate affordable, fresh produce in your local area?



A majority, 62% of the respondents answered “NO”, 23% answered, “YES” and 15% answered “MAY BE”. If we add-up the “NO” and “MAY BE,” answers, we find the respondents feel it is easy for them to access affordable, fresh produce in their local area.

This indicates that shoppers responding to the survey were already familiar and able to find or locate a Farmers market which they felt comfortable shopping at. It will be interesting to track repeat-customers to the Farmers market versus first-time customers, since this entry might provide more information on easy/difficulty to locate Farmers markets. There will be a need to consider defining and tracking what customers consider affordable and fresh produce.

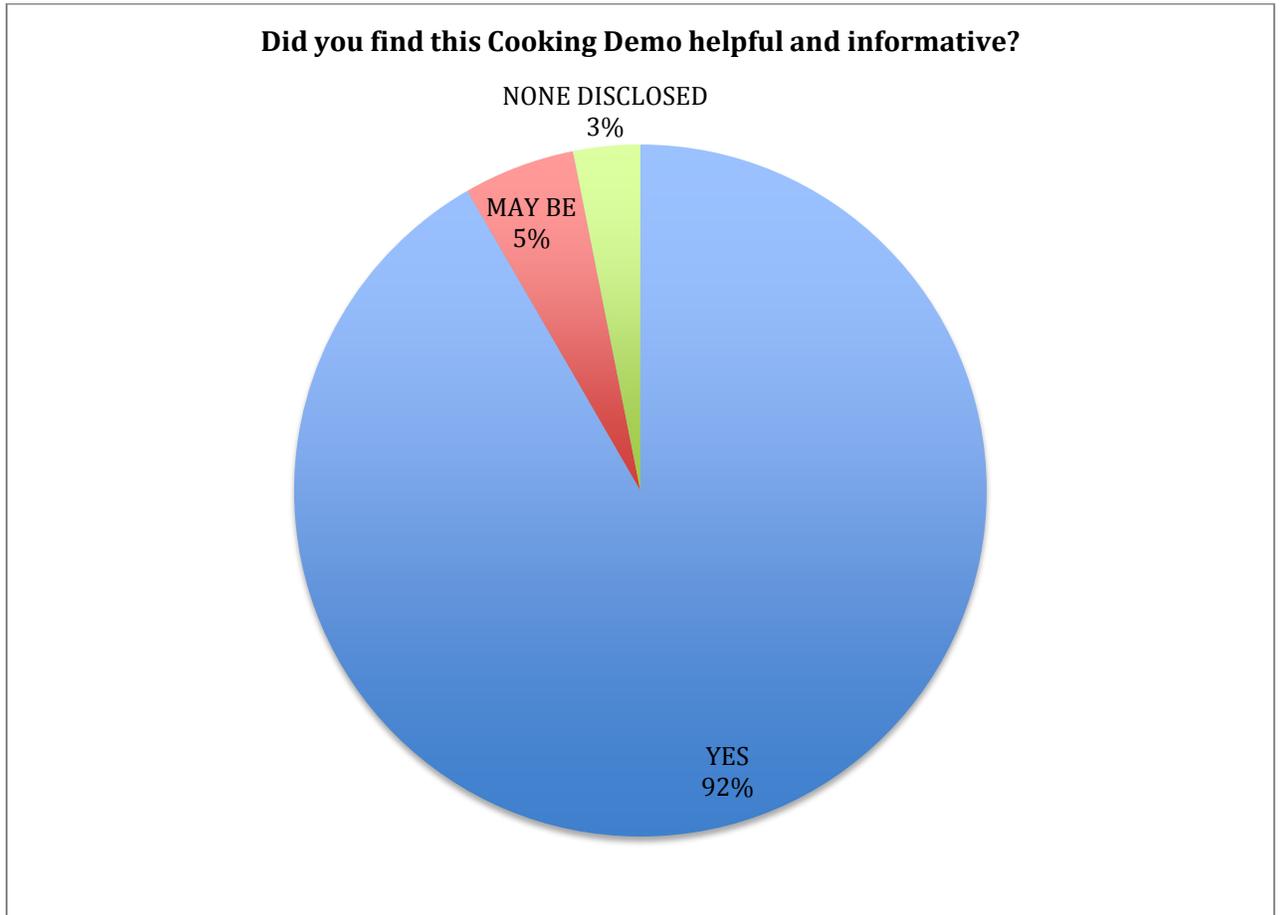
Question 4: Did you know about the African vegetable stand at Armory Farmers Market, every Thursday at 3:30 – 7:00 pm?



A majority, 88% of the respondents answered “NO”, 11% answered, “YES” and 1% answered “MAY BE”. We find here that the respondents did not know about or are not familiar with the African vegetable stand at the Armory Farmers Market, despite the fact that 34% of the respondents came from the City of Providence.

This may indicate that many shoppers are not aware of this opportunity to shop for their fresh produce at the Amory Farmers market, due to a lack of aggressive promotion and advertisement. These assumptions will need to be investigated further.

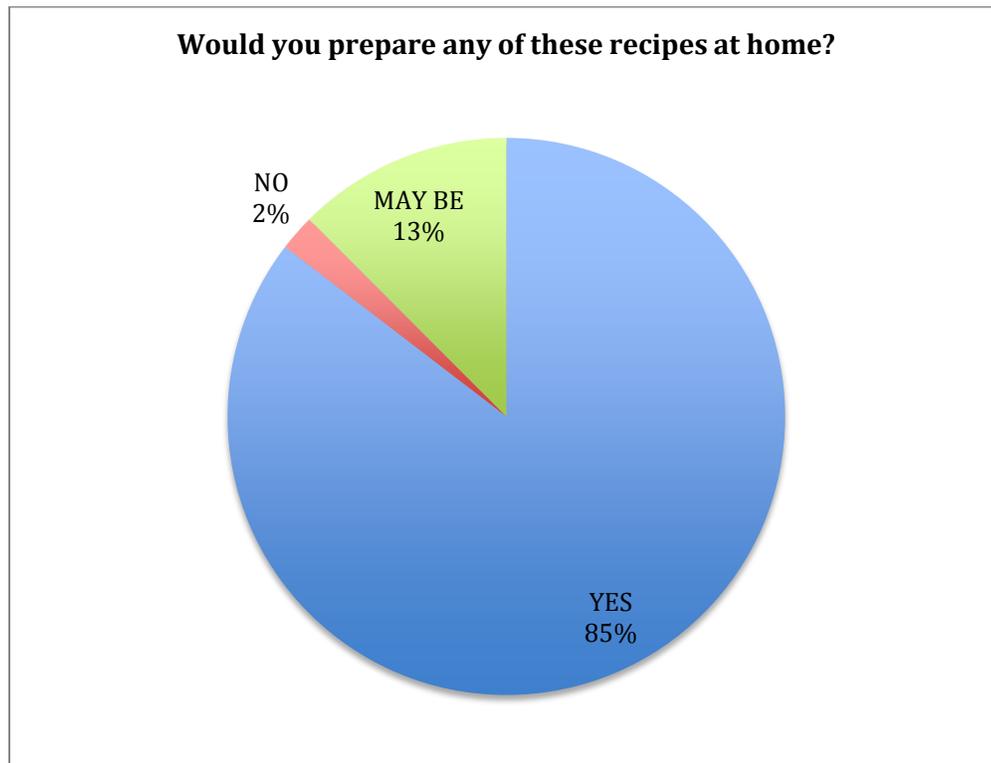
Question 5: Did you find this Cooking Demo helpful and informative?



A majority, 92% of the respondents answered, "YES", 5% answered "MAY BE" and 3% did not respond to the question. We find here that the respondents did find the cooking demo helpful and informative.

The heavy volume of traffic at the cooking demo and tasting stand leads us to conclude that shoppers were successfully introduced to or informed of, an African, delicious and tasty dish, which enabled them consider purchasing African vegetables and prepare it at home according to the recipe distributed at the event (e.g. with helpful cooking demo). This survey did not capture which shoppers went on to purchase some or all of the ingredients to prepared the demo dish at home. This might be an issue for discussion and a potential follow-up.

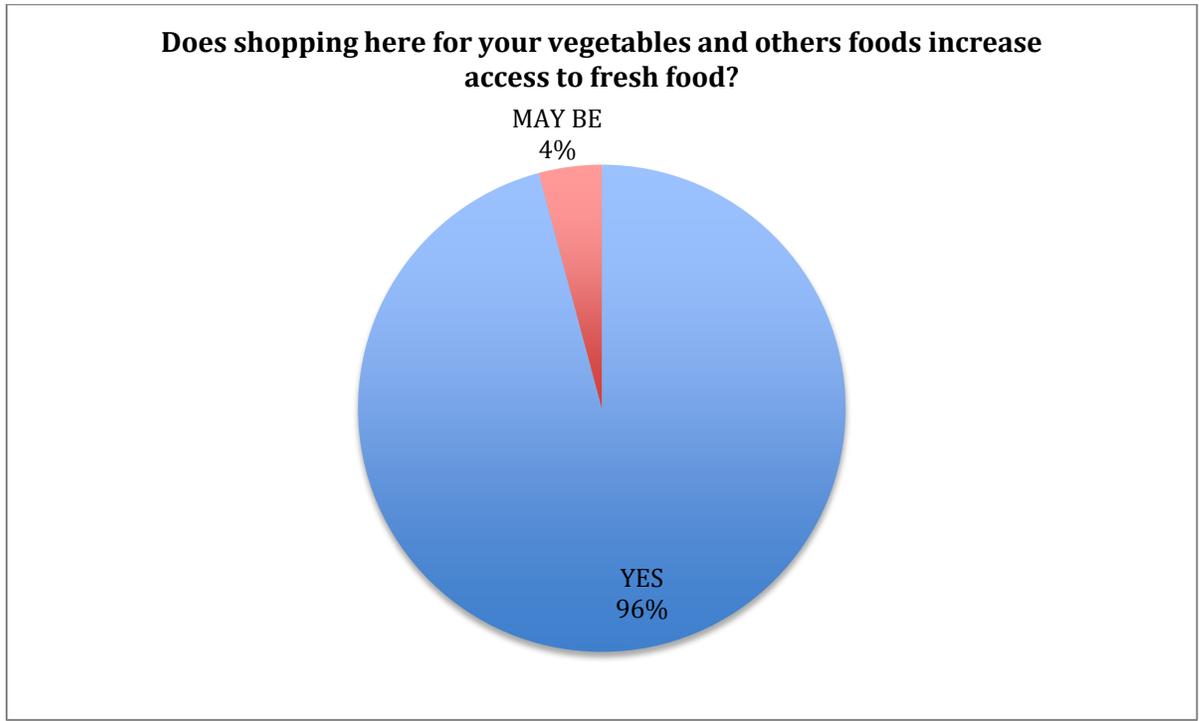
Question 6: Would you prepare any of these recipes at home?



A majority, 85% of the respondents answered, "YES", 13% answered "MAY BE" and 2% answered "NO".

We find here that the respondents express great interest in preparing the dishes presented at the cooking demo. A testament to the shoppers interest for the recipes is shown in the fact that AARI ran out of 200 recipes hand-out printed. The give-away recipes cards were in great demand and very much appreciated by the respondents. This survey did not capture which shoppers went on to purchase some or all of the ingredients to prepared the demo dish at home. This might be an issue for discussion and a potential follow-up.

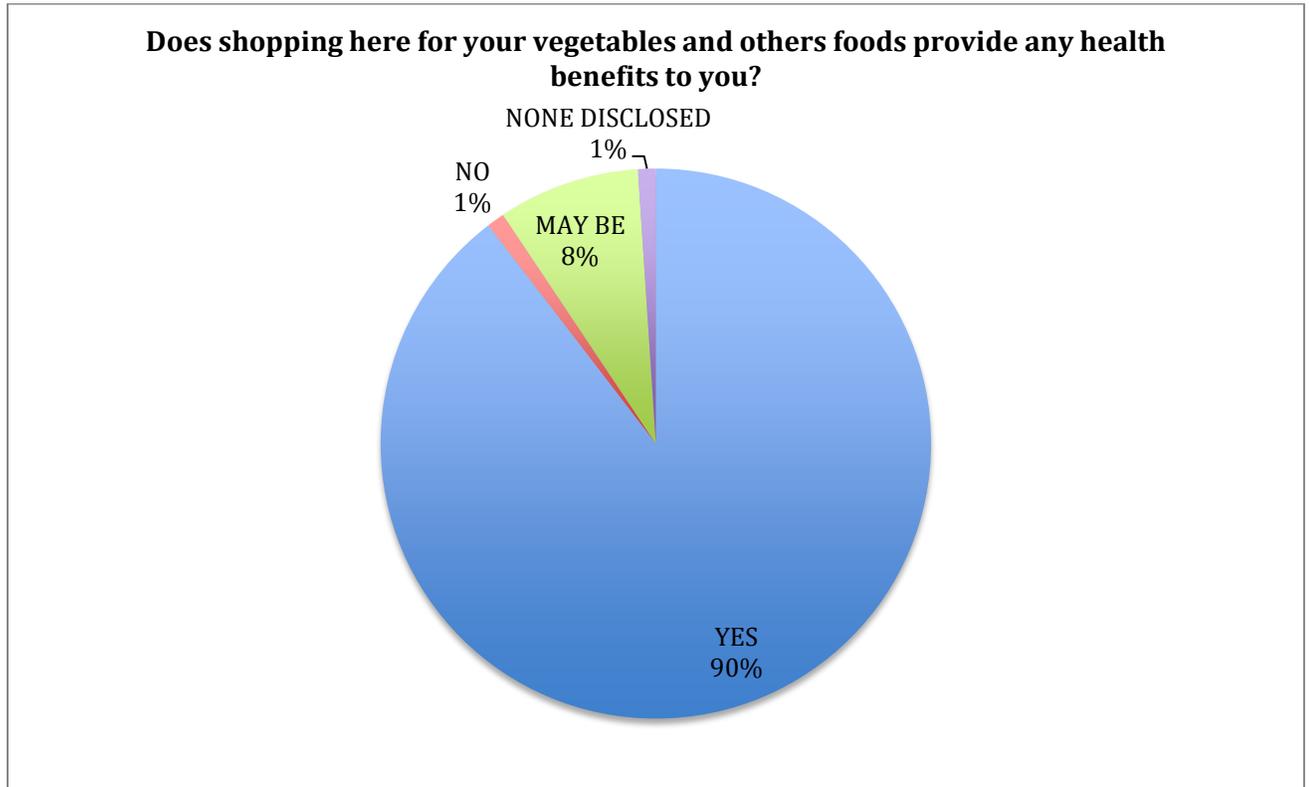
Question 7: Does shopping here for your vegetables and others foods increase access to fresh food?



A majority, 96% of the respondents answered, "YES", 4% answered "MAY BE". We find here that the respondents believe that shopping at the Farmers market increases their access to fresh food. It will be interesting to survey what are the specific factors that lead them to this believe or position.

This indicates that shoppers responding to the survey believe that the Farmers market is a great venue to purchase vegetables and other fresh produce. This survey did not track what other shopping facilities or locations these shoppers consider as an alternative to the Farmers market, when shopping for vegetable and other fresh produce.

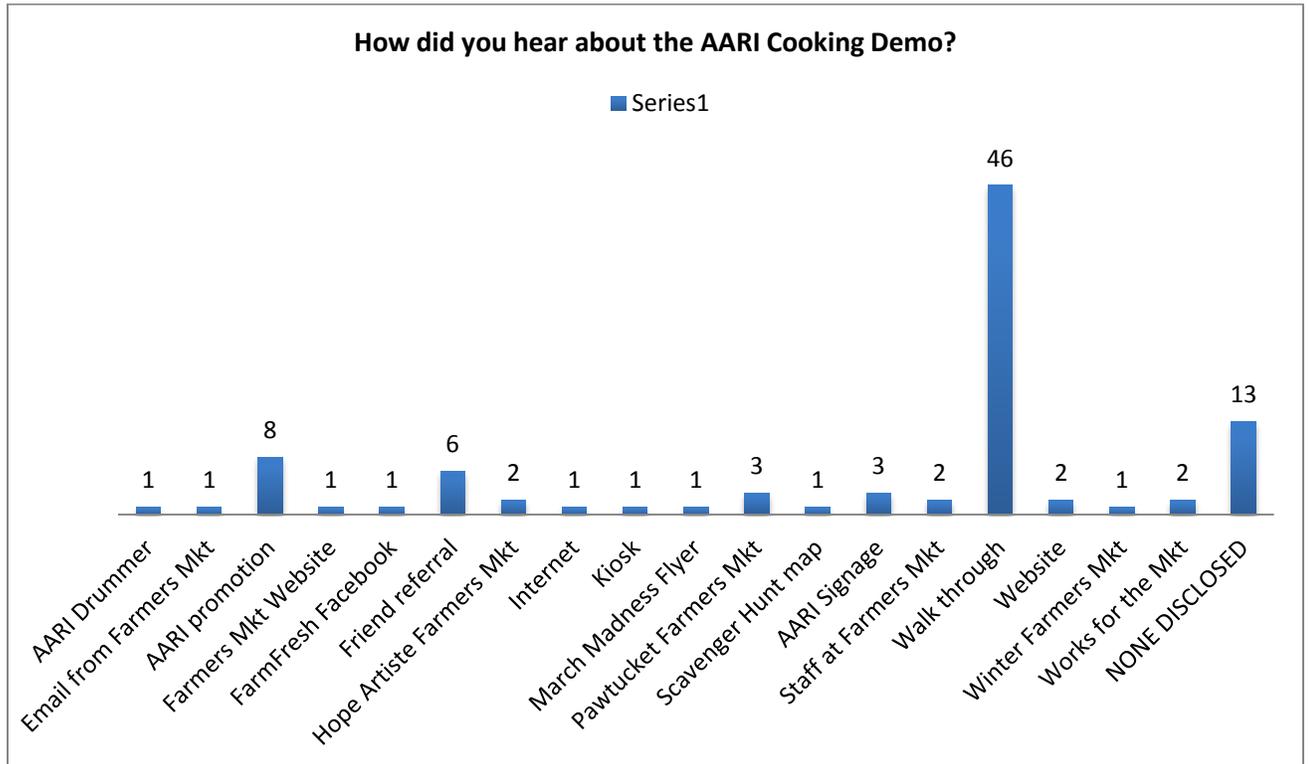
Question 8: Does shopping here for your vegetables and others foods provide any health benefits to you?



A majority 90% of the respondents answered "YES" and 8% answered, "MAY BE" and 1% answered "NO" while another 1% of the respondents did not answer the question.

We find here that the respondents believe that shopping at the Farmers market provides a health benefit. It will be interesting to research what are the specific factors that lead them to this believe or position, for instance, do they perceive the foods at the Farmers market to be better or healthier quality than food found else where?

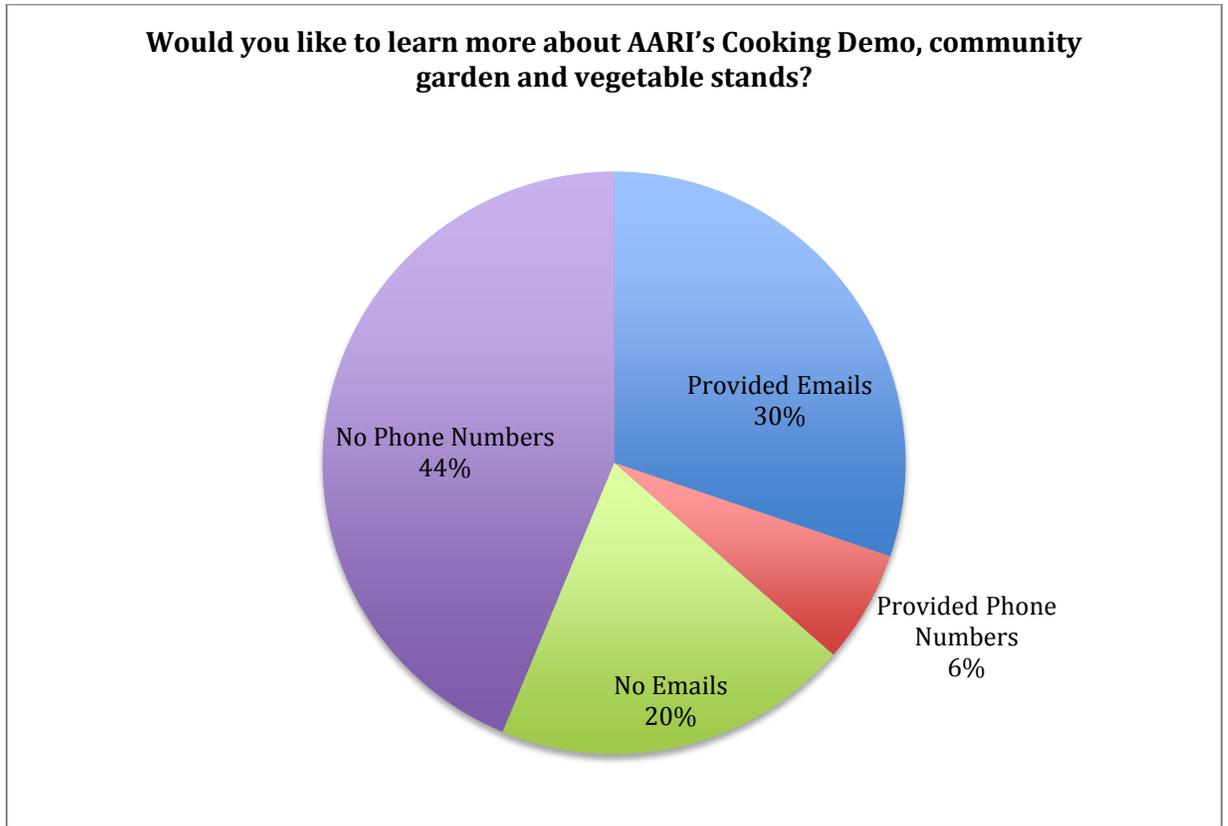
Question 9: How did you hear about the AARI Cooking Demo?



A majority 46% of the respondents were “Walk through”, and approximately 16% knew through one of several Farmers market outlet. About 8% knew through the AARI’s promotions campaign and another 8% knew through the internet (website, Facebook or emails).

This indicates that the majority of shoppers responding to the survey primarily went to the Farmers market based on the need to purchase fresh produce. This survey also shows the various, multiple vehicles that were used to attract and inform shoppers about AARI’s Cooking Demo event. The AARI and Farmers market staff on-site personally engaged the shoppers, play the drums and posted signage. Other side attractions like the scavenger hunt did account for the rest.

Question 10: Would you like to learn more about AARI's Cooking Demo, community garden and vegetable stands?



A significant number of respondents 36% provided an email and/or a phone number expressing interest and wanting to know more about AARI's cooking demo, community garden and vegetable stands.

This survey shows that there was significant interest from the respondents to know AARI's Cooking Demo , community gardens and vegetable stands.

Cooking Demo traffic

The pictures attached herein below, portrays the general dense traffic experience through the cooking demo event. There was a lot of demand for all the recipes handouts and respondents expressed how delicious the demo dish – Maffae, was.



Pictures taken of AARI volunteers at the Winter Farmers Market, Hope Artiste Village



Shoppers lined up to taste / Shoppers tasting / AARI volunteers engaging participants during the cooking demo and tasting



AARI – Video of AARI volunteers and drummer at the Winter Farmers Market, Hope Artiste Village. This video link can be found on YouTube at <https://www.youtube.com/watch?v=KWTnbXwKlrY&feature=youtu.be>

Conclusions

A number of conclusions can be drawn from this report and can be condensed into the following points.

- There is a great demand for fresh produce generally and African vegetables specifically at the Winter Farmers market.
- There are concerning trends that indicate both racial and geographical disparities within the community regarding healthy food access. The non-Caucasian communities are absent at and in the Farmers market and they are most likely to face difficulty accessing fresh produce.
- Interviewees were generally very interested in learning more about the African vegetable, and recipes, which indicates that AARI could pursue an entrepreneurial project related to the shoppers' interest and demands, successfully.
- Future cooking demonstrations should be timed in accordance with the sales of the stand, when the stand, so that shoppers could enjoy a one-stop shopping experience.

Project Title

RI. DEM GET FRESH BUY LOCAL Campaign

Final Report

Project Summary

This program was built on the previous projects and enhanced our commitment to increase demand and consumption of RI Grown Specialty Crops. Our motivation is to enhance the marketing of Fruits and Vegetables in the State for over 200 farmers. This is needed to help slow down the loss of Agricultural Land to development by making farming of Specialty Crops viable in Rhode Island.

The Rhode Island Division of Agriculture working with specialty crop growers throughout the state expanded on its "Rhode Island Get Fresh Buy Local" buy local initiative by conducting produce preparation demonstrations featuring local celebrity chefs at all RI farmers market and participating roadside stands. The Division also updates its RI Agricultural Display on an annual basis. The Division also uses SCGF to enhance its marketing program by making point of purchase advertising material available to farmers. The need for this project is to help keep Specialty Crop Farming Viable in Rhode Island. Since Rhode Island has such a short growing season it was critical for us to get Specialty Crop Farmers (Fruit and Vegetable Growers) the logo material.

Project Approach

Through our efforts of purchasing new graphics for our display and doing shows throughout the State we increased demand for RI Grown Specialty Products (fruit and vegetables). We also expanded our farmers' market program by using wireless EBT technology at our farmers markets. At the market we increased sales for Rhode Island Specialty Crop Farmers by the use of these EBT machines

Our partnership with Rhode Island Specialty Crop Growers has served over 400,000 Rhode Island residents by bringing the locally grown fruits and vegetables. Working with over 50 farmers markets we have increased outlets for the sale of locally grown Specialty Crops. Fruit, Vegetables, Nursery Stock and Honey are now in demand more than ever.

We also held cooking demonstrations in partnership with Johnson and Wales University at 6 farmers markets throughout the State. Customers were taught how to prepare fruit and vegetables that were being sold at the farmers market. Over 700 people saw these demonstrations.

We also hired two summer interns to work at the farmers markets to help Specialty Crop Farmers sell their products. The interns job was to help specialty crop farmers display their products. The interns job was to give out information about specialty crops and answer any customers questions. Also the intern would interview specialty crop farmers to see if our efforts increased their sales. In interviewing farmers we have seen a 2% increase in sales of Specialty Crops over last year. We interviewed 50 Specialty Crop farmers at farmers markets and asked if they have seen any increase in sales due to our marketing efforts. Due to the added demand we now have 6 winter farmers markets.

To ensure Specialty Crop Funds were only used for Specialty Crops the DEM/Division of Agriculture contributed over \$50,000 dollars of State funds to cover non Specialty Crops that have benefited from this program. Over 80% of the Agricultural Crops sold in RI are Specialty Crops.

Goals and Outcomes Achieved

By expanding our marketing efforts by purchasing of display material and doing shows throughout the State we have increase demand for RI Grown Products. Also by expanding our farmers' market program and introducing wireless EBT technology into additional markets we have increased sales for Rhode Island Farmers. These sales were documented by bank statements showing sales of fruit and vegetables that were processed through the EBT machines. There was sales of \$13,000 processed on the EBT machine for Specialty Crops. We also measured the increase sales of RI Grown Specialty Crops by speaking and surveying farmers to see if their sales have increased. We know as in the past informing the public about RI Grown Specialty Crops increases demand for such products.

EBT Program was supplemented by 20% of State funds to compensate for the sales of non-Specialty Crop items. It has been determined that 20% of products being sold at our farmers markets are not Specialty Crops.

The goals we achieved for the season are:

- Set up and operate EBT systems at 16 farmers markets
- Re-Certified 42 farms for GAP compliance for sales to school districts
- Had cooking demonstrations at farmers markets throughout the season at 6 farmers markets over 6000 people learned how to prepare fresh fruits and vegetables. This was a partnership we have with Johnson and Wales University that is very popular.
- Gave out information to 50,000 citizens promoting RIGrown at shows
- Point of purchase material is critical to educate the public as to what products are RI Grown Specialty Crops. These point of purchase materials also let the farmer help customers identify which are Rhode Island Grown Specialty Crops. We will measure the outcomes of our actions through the surveying of farmers to see if our efforts have increased demand for their products.
- Of the 50 Specialty Crop Farmers Surveyed. All responded that our efforts have helped them in some way to stay viable as a Specialty Crop Grower in RI. They all have seen an increase in sales.
- We created two new farmers markets, but we closed one farmers markets that were not performing to our expectations. The new markets we opened operate November through April.
- We held Agriculture Day at the Rhode Island State house May of 2016 and over 40 Specialty Crop Farmers were able to give out information about the crops the grow and where there establishments are located. Over 2,300 people attended the event. There was also a proclamation from the Governor for Agriculture Day in Rhode Island.
- Sales for Specialty Crops in RI have been increased as documented by the New England Agricultural Statistics Census taken for RI.
[http://www.nass.usda.gov/Statistics by State/New England includes/Publications/Annual Statistical Bulletin/CashRec2013.pdf](http://www.nass.usda.gov/Statistics%20by%20State/New%20England%20includes/Publications/Annual%20Statistical%20Bulletin/CashRec2013.pdf)

Using previous years as benchmarks it is clearly seen the increase in sales of Specialty Crops on an annual basis.

-OUR MARKETING EFFORTS HAVE LEAD AGRICULTURE TO BE THE ONLY SEGMENT OF THE RHODE ISLAND ECONOMY THAT IS PROSPERING. We have achieved our goals for this grant cycle.

Beneficiaries

The beneficiaries of the project are all the citizens of Rhode Island and Specialty Crop Farmers. Our efforts have increased the availability of fresh fruits and vegetables for the citizens of Rhode Island.

Lessoned Learned

We have learned that marketing of Fruits and Vegetables and other Specialty Crops is critical to increasing sales and keeping farming viable in Rhode Island

Contact Person

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Dry Bean Trial

Project Summary

This project was to supply farmers with the knowledge of dry bean varieties suitable for Rhode Island, which in turn would provide those farmers with a valuable crop for Fall storage and provide local chefs in the food service industry with another source of sustainable protein. As farmers trying to supply the food service industry in Rhode Island, we had found it difficult to find dry beans varieties that perform well in Rhode Island, have a consistent shelf life and are desirable to local chefs. With a large “buy local” movement within the state, farmers are looking to extend crops through the year as much as possible. Dried beans can be stored throughout the Winter and be a valuable Winter wholesale crop. Within the project two machines were constructed, a small bean thresher and a bean winnower to make the processing of beans cost effective. The original project included 10 chefs who agreed to take part in a survey to rank the characteristics of beans supplied to them. With help from Johnson and Wales a survey was written to include specific qualities of dried beans which local chefs may be interested.

Project Approach

Ten varieties of dried beans were selected from two vendors, Vermont Dried Bean Company and Johnny’s Select seed. The varieties, Black Turtle Soup, Yin Yang, China Yellow, Bumble Bee, Vermont Cranberry Bush, Red Mexican, Tiger’s Eye, Black Coco, Adzuki and Arikara Yellow were selected for their growing length, short was preferred and for the bush habit, to keep down on costs of materials for stakes and labor.

In Mid-May we plowed, harrowed and rototilled a two-acre farm that we rent in Little Compton, RI. The field has been used in previous years for the production of tomatoes, pumpkins, cut flowers and rye. On May 31st, we marked and planted 30 rows of dried bush beans, 3 rows of each of the 10 varieties.

The beans began to sprout on June 10th, also at this time wild turkeys flocked to this location. The turkeys did moderate damage to the west end of the field across all the varieties.

During the next 5 weeks rototilling and hand weeding close to the plants was done twice weekly.

On July 8th we discovered the flock of wild turkeys again and had begun eating the established plants. We installed a battery powered four strand electric fence around the field in hopes of discouraging the flock. We contacted DEM to see if there were any measures we could take against the turkey but were notified that there were none. We encouraged our neighbors to allow their dogs to roam the field in hopes of relocating the turkeys. It was apparent that the Black Turtle Soup variety that was along the north side of the field had taken a lot of turkey damage, a whole row had almost been completely lost, whereas the other varieties seemed to be less damaged. We continued to rototill two times a week, but decided to let the weeds closer to the plants grow in hopes of forming a protective barrier.

In October we began work on a thresher using the USDA approved plans: <http://naldc.nal.usda.gov/naldc/download.xhtml?id=IND43759336&content=PDF> . These plans explain how to convert a wood chipper into a thresher. We had to purchase two used wood chippers to obtain enough parts to have a structurally sound machine when finished. Each machine cost \$200.00, one machine was purchased locally, while another was purchased at an auction. The first step was to rebuild the gas engine. Which required a new carburetor and cleaned points. We followed the plans using parts from both machines to complete the thresher. The first try at threshing proved the machine was running at too many RPM’s. around 1800, as our sample beans would be cracked in two. With the aid of the internet and some friends it was discovered that we would need to mount a 24” pulley on the thresher and a one-inch pulley on the engine to get the RPM’ s down to a more manageable 400 RPM’s. The size and shape of the thresher would not support the 24” pulley, as it would rub against the ground.

Some more research was done and we decided to modify the original plan with a .5 hp electric motor from Harbor Freight. With the electric motor and a speed controller we could reduce the speed of the original design to accommodate the beans. The speed controller needed to be purchased through a local electrician, we initially purchased it from Harbor Freight and it kept blowing the fuses. Our electrician explained that the motor we had would not handle a speed control. So we went back to larger pulleys and because the electric motor was much slower than the gas engine we only needed an eight-inch pulley and then the machine ran great. The total time to complete the thresher project was 33 hours, although about 8 of those hours were spent on the failed gas engine and large pulley trial.

We then started constructing the winnow in October, we located some plans on youtube at [youtube.com/watch?v=EAT0KU7Qw1A](https://www.youtube.com/watch?v=EAT0KU7Qw1A) . To begin the project, we purchased a new shopvac, Plexiglas, wood and few small pieces of hardware to the complete the winnow. We followed the plans with little issue. We used a small band saw to cut all the wood and plexiglass which seemed to speed up the process. This was an extremely easy project. The winnow works very well for any size seed, from peppers and rye to the much larger bean seed. Total time to complete the winnow was around 8 hours, including painting and testing. This winnow creates a finished product that is very clean and marketable and is easy to use.

On October 7 we harvested the beans. It had been dry for several days and was expected to rain the next day. All the varieties were individually pulled from the ground and placed in separate locations within our high tunnel to dry. They were placed up on layers of plastic creates to allow air flow to keep them from molding. We flipped them every morning to prevent molding.

We picked a dry, low wind day in mid-November to thresh our dried bean crop. We laid out a large clean tarp underneath the thresher to catch the beans, which did need to be located near a power supply. Each individual bean variety was moved and threshed separately to ensure that the beans did not get mixed up. Before putting the beans into the thresher we removed what stems and leaves we could, this needed to be done over the tarp as the beans were very dry and some were falling out of the shells. The dried beans were easily collected once the threshing was done by removing the pods and stems that sat on top of the pile by hand and pour the remaining beans into baskets. This process varied for time by variety (index) due to uneven yields between the varieties, but was very effective and easy.

Once all the beans had been threshed, we sent them through the winnow by variety. We did this inside our house as we did not have large quantities of beans, but I would recommend a location out of the elements with a tarp underneath in case of spillage. We used a half inch opening in a funnel which worked fine for most of what we were doing. The output of the funnel was slightly small for the larger sized beans like Tiger’s eye. A larger sized funnel could be used without issue. All the beans came out of the winnow in superb condition. The time was minimal was our yield was low, but the process was very quick and easy

Outcome Table

Black Turtle Soup	Not enough to report
Yin Yang	1.68 lbs.
China Yellow	Not enough to report

Bumble Bee	Not enough to report
Vermont Cranberry Bush	3.66 lbs.
Red Mexican	7.08 lbs.
Tiger's Eye	14.73 lbs.
Black Coco	3.84 lbs.
Adzuki	Not enough to report
Arikara Yellow	21.78 lbs.

With the help from Chef Brandon J. Lewis MBA, Chef instructor, Johnson and Wales University, College of Culinary Arts, we prepared a comprehensive survey to include with a sample pack of beans to be shipped to participating chef. 10 local chefs agreed via email before the project began to take part in a survey ranking our dried beans according to desirable attributes.

Appendix A

Labels were designed for each variety of bean. The beans were packaged in industrial zip style clear bag with a label stating their variety. A sample pack of beans was assembled for each of the participating chefs including 6 varieties, a letter reminding them of our project, the survey and a self-addressed stamped envelope. The packages were sent the end of February, allowing the beans to be stored and to be considerate to the busy times for restaurants. Only one survey was returned, and they wished to remain anonymous. Reminder letters were sent to the chefs and no more surveys were received.

The final step in the process was to hire a plow and harrow to prepare the ground for a winter cover crop of Winter Rye. The soil was then rototilled, seed was broadcast and tilled into the soil.

Despite the drastically low volume of beans due to the turkey infestation we were able to construct two extremely helpful machines to use in commercial dried bean production. Both machines were easily built, with low level in machinery skills, for low cost and parts were fairly easy to obtain.

Goals and Outcomes achieved

We are very pleased with the assembly of the thresher and winnow. We have grown a small amount of dried beans in the past and the amount of man hours to shell them was astounding. Even at the point where they were shelled the product was not a clean sellable bean, there still remained small amounts of shell and dirt. We had looked into purchasing a commercial thresher and winnow, the cost was far out of the small farmer's reach, which may be why there are no commercial growers of dried beans within our state. The thresher and winnow we assemble cost \$1338.82 including labor, making it easy and affordable for a smaller farm.

Beneficiaries

The original plan of the bean trial was to supply farmers with the knowledge of the most desired dried beans varieties by local chefs, while also making an affordable thresher and winnow. With only one response from a local chef we do not feel that we have conclusive data on what the best dried bean would be for local restaurants. The thresher and winnow proved to be a very inexpensive and easy way to process the beans once they were dry. Commercial equipment on the internet was priced at several thousands of dollars. With the extensive damage from the Turkeys we had an extremely low yield of all varieties and feel that it would be conclusive as to which variety had the highest yield.

Lessons Learned

Low bean yield was not a beginning concern of ours, the field had been a great producer in the past with only deer as a pest, and controlled through electric fencing and a state issued nuisance permit. We quickly became concerned about the yield due to turkeys and looked for several unsuccessful solutions. We hope the State of Rhode Island would consider issuing nuisance permits for turkey in the future as they did more damage than deer in previous years. Flocks between 20 and 40 turkeys would could be seen daily in that field and are to this day throughout Little Compton in large quantities. The solar electric fence we used to keep our cows was not a deterrent, as they would fly over it.

The bean plants required the expected amount of weeding and rototilling. They were on a schedule with other crops and required similar time and effort to other crops being grown. The harvest is dependent on the weather, if it had an extremely rainy Fall it might cause a problem.

We had not considered that we would need a large covered area for drying. We luckily had room within our high tunnel during the fall months that remained dry with a nice cross breeze for drying. Had we harvested the expected amount there might not have been enough room. This should not be over looked if considering a large bean crop.

Contact Person
Polly Allen
401.635.4091
Bean4444@aol.com

Appendix A

Dried Bean Trial Survey

Please return your survey in the self-addressed stamp envelope with in the next three weeks

Email questions to Polly at bean4444@aol.com or call 401.635.4091

Thank you for agreeing to participate in our dried bean survey, which was a very important step in completing our Dried Bean Grant with the State of RI. Unfortunately, wild turkeys feasted on most of our crop. We did manage however to save a small sampling of 6 varieties. Besides growing the beans, we were also able to modify an old wood chipper to make a bean thresher and construct a winnow for a very low price. Commercial threshers and winnows can be very cost prohibitive for small local farmers. We hope the results of this survey, and the shared knowledge of our plans will encourage other local farms to produce dried beans as well.

Please tell us a little about yourself:

Name:

Restaurant or culinary institute:

How often do you use dried beans in your profession?

How easy is it for you to find local dried beans?

May we use your name within our reporting to the State of RI? YES ☆ No ☆

What did you think about this beans Color and pattern before cooking?

On a scale of 1 to 5, 5 being that you loved the color and 1 being you did not care for the color

	1	2	3	4	5
Arikara Yellow					
Black CoCo					
Red Mexican					
Tiger Eyes					
Vermont Cranberry					
Yin-Yang					

What did you think about this beans Color and pattern after cooking?

On a scale of 1 to 5, 5 being that you loved the color and 1 being you did not care for the color

	1	2	3	4	5
Arikara Yellow					

Black CoCo					
Red Mexican					
Tiger Eyes					
Vermont Cranberry					
Yin-Yang					

What did you think of the meatiness of this bean?

Considering the skin to bean meat ratio, please rate how desirable you found the meatiness of this bean. 5 being very desirable and 1 being not desirable at all

	1	2	3	4	5
Arikara Yellow					
Black CoCo					
Red Mexican					
Tiger Eyes					
Vermont Cranberry					
Yin-Yang					

How well did it stay together when cooked tender?

On a scale from 1 to 5, 5 being that the bean held together very well and 1 being that it fell apart.

	1	2	3	4	5
Arikara Yellow					
Black CoCo					
Red Mexican					
Tiger Eyes					
Vermont Cranberry					
Yin-Yang					

How likely would you be to purchase this bean from a local farmer?

On a scale from 1 to 5, 5 being that very likely and 1 being unlikely.

	1	2	3	4	5
Arikara Yellow					
Black CoCo					
Red Mexican					
Tiger Eyes					
Vermont Cranberry					

Yin-Yang					
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**FINAL REPORT
NORTHEAST ORGANIC FARMERS ASSOCIATION of RHODE ISLAND -
NOFA/RI**

12-25-B-1694

TECHNICAL ASSISTANCE TO IMPLEMENT ORGANIC TECHNIQUES ON SPECIALTY CROP FARMS

PROJECT SUMMARY

This project seeks to enhance the competitiveness of eligible specialty crops by training farmers to produce crops with higher value and demand in the marketplace. Certified organic crops command a higher price in the marketplace, and consumers actively seek out crops that either are certified organic, or are grown in a way that is perceived to be more sustainable. In a State where availability and accessibility of farmland is severely limited, farmers are interested in increasing the yields and value of their crops, while reducing their reliance on chemical inputs.

There exists in Rhode Island, a small percentage of certified organic farmers and a growing number of farmers who are beginning organic farmers or would like to employ organic methods on their farms, but lack experience and knowledge to do so. This project would serve to enhance the viability of both groups by providing advanced technical training, an advisor program, and on-farm workshops. Currently, NOFA/RI is the only resource in Rhode Island that is fulfilling this need. Under the current National Organic Program Standards, the Rhode Island Department of Environmental Management Division of Agriculture implements the State's Organic Certification Program and is restricted from advising applicants on organic production techniques. The RIDEM organic certification program receives requests for technical assistance from new applicants for organic certification. Rhode is currently experiencing a resurgence of local agriculture. This project will give farmers the knowledge and skills they need to remain viable in an increasingly competitive industry.

The project has not been submitted to or funded by another Federal or State grant program.

Importance and Timeliness (Describe the importance and timeliness of the project.)

Consumer demand continues to rise for organic and non-GMO foods. America does not have enough certified and non-certified organic growers to meet this demand causing a large percentage of organic foods sold in the US to be imported from other countries. This need demonstrates a strong need for training additional farmers in organic and sustainable practices. NOFA/RI addressed this need through our educational workshops, seminars and conferences as well as assisting farmers individually via the Organic Farmer Advisor program.

Climate change continues to be a concern across the globe. Grower discussions and research is focused on sequestering carbon in soil through building organic matter with organic practices. This includes crop rotation, mulching, composting, and using cover crops and low-till/no-till practices. CRAFT On-Farm Workshops and Advanced Grower Seminars demonstrated and emphasized these practices.

Beginning farmers continue to struggle with farm viability. Our full-day workshops on farm business planning addressed this directly:

“Six-Figure Farming for Small Plots: Essential Tools & Techniques for the Small Scale Organic Vegetable Growers” with Jean-Martin Fortier

“Business Planning – Farming Smarter, Not Harder” with Richard WiswaL

The Northeast's Departments of Agriculture along with numerous non-government agencies have a goal of increasing the food sovereignty of the Northeast.

During the grant period, grassroots groups began and continued efforts to require food manufacturers to label foods made with Genetically Modified Organisms (GMOs) or Genetically Engineering (GE) across many northeast and western states. Legislation passed in several Northeast states, some with trigger clauses requiring nearby states to pass similar legislation. After the close of the grant period, federal legislation overrode the state labeling legislation.

By definition, USDA Certified Organic excludes GMO or GE products from use in organic production and inclusion of GMO or GE ingredients in value added "Organic" foods.

Building on Previous Grants (description similar to grant proposal and contract)

If the project built on a previously funded project with the SCBGP or SCBGP-FB describe how this project complemented and enhanced previously completed work.

NOFA/RI received specialty crop block grant funds for Advanced Grower Seminars and Organic Farm Advisors from April 1, 2010 to March 31, 2012.

NOFA/RI received specialty crop block grant funds for Advanced Grower Seminars and Organic Farm Advisors plus Collaborative Regional Alliance for Farmer Training (CRAFT) On-Farm workshops from April 1, 2012 to April 31, 2014.

The current grant proposal seeks to continue the same programs, but expand one of the Advanced Grower's Seminars into an Organic Farming Conference. As of the application date six Advanced Grower Seminars had been held, with an average of 14 specialty crop farmers or agricultural professionals attending. Publicity for the events was extended to all farmers in RI, and a mix of certified organic, non-certified, and beginning farmers attended. Recent seminars were on the topics of tomato grafting with Skip Paul, and four-season growing with Eliot Coleman. A seminar on nutrient dense crop production is planned for the fall of 2013. Evaluations from the attendees showed that the workshops were effective in accomplishing the goals of the specialty crop program. NOFA/RI sought continued funding for the Advanced Grower Seminars with a slight increase in the amount to pay a Seminar Coordinator.

The Organic Farm Advisor program was launched in 2011. Four experienced organic farmers were appointed as Organic Farm Advisors. Despite increased publicity and outreach, only two applications for assistance were received in the prior grant period. NOFA/RI reduced the total amount requested for the program to more accurately match demand.

In 2012, NOFA/RI hosted five Collaborative Regional Alliance for Farmer Training (CRAFT) On-Farm Workshops and planned another 10 workshops for 2013. Previous workshops focused on skills that would be needed by people starting out in organic farming such as seed saving, intensive production, winter growing, cover crops, succession planting and weed control. A total of 45 people participated in the 2012 workshops. NOFA/RI sought a slight increase to fund 8 workshops per year, and also increased the funding request to pay a CRAFT Workshop Coordinator to plan and promote the workshops.

In 2012, NOFA/RI contracted a Coordinator to assist with planning the CRAFT On-Farm Workshops and Publicity for all programs. Through a revised website and email newsletter, direct mailings and press releases, participation in events increased dramatically. For example, on-farm workshop attendance jumped from an average of four participants per workshop to 30 participants. To continue this improved response, NOFA/RI sought an increase in funds for Publicity and for a Publicity Coordinator.

PROJECT APPROACH

Activities / Tasks, Results and Recommendations

*Briefly summarize activities and tasks performed during the entire grant period. Whenever possible, describe the work accomplished in both quantitative and qualitative terms. Specifically, discuss the tasks provided in the **Work Plan** of the approved project proposal. Include the significant results, accomplishments, conclusions and recommendations. Include favorable or unusual developments.*

This grant allowed NOFA/RI to pursue the following programs:

- Advanced Grower Seminar Program,
- Organic Farming Conference / 2016 Winter Conference,
- Collaborative Regional Alliance for Farmer Training (CRAFT) On-Farm Workshop Program,
- Organic Farm Advisor Program
- Publicity/Outreach for these programs.

Advanced Growers Seminars

The NOFA/RI board contracted with an Advanced Grower Seminar Coordinator, who coordinated the Advanced Grower Seminars.

NOFA/RI offered four seminars on specialty crop production and marketing during the two-year grant period. The Coordinator and NOFA/RI Board of Directors selected Seminar topics based on recommendations from NOFA/RI members and other stakeholders. Seminars addressed the production of a specialty crops using organic methods or the use of an organic practice as applied to specialty crop production (e.g. using biological controls in the production of fresh market vegetables in an organic greenhouse). The Coordinator monitored program results via participant evaluations.

Craft On-Farm Workshop Program

The Collaborative Regional Alliance for Farmer Training (CRAFT) workshop series shares farmer experiences and best practices between farmers, farm workers, apprentices and gardeners. Host farmers discuss how to produce, harvest, handle, market and/or differentiate specialty crops.

Fourteen CRAFT On-Farm Workshops were held in this grant-reporting period between October 1, 2014 and March 31, 2016.

Organic Farm Advisor Program

The Publicity Coordinator and Organic Farm Advisor Program Coordinator solicited applications for and the Advisor Coordinator selected six Organic Farm Advisors. Their areas of expertise include production and marketing of certified organic, chemical-free, and nutrient-dense vegetables, herbs, cut flowers and small fruits; and tractor operation and maintenance and applying for organic certification.

Advisee applicants submitted written applications to the program Coordinator. The applications required the applicant to demonstrate they are a producer or intend to become a producer of specialty crops, and that the assistance sought would enhance the competitiveness of the specialty crops that they will grow. The Coordinator matched qualified applicants with an appropriate Advisor.

The Advisors were required to sign a contract stating that they will only advise the applicants on areas applied for by the applicant and approved by the Coordinator. The Coordinator monitored the Advising program results via Advisors' summary reports and Advisee evaluations.

NOFA/RI's goal was to assist four specialty crop Organic Farmer Advisees. Four participants in the Organic Farm Advisor program were expected to report that the programs will help them become more competitive in producing and marketing specialty crops.

GOALS AND OUTCOMES ACHIEVED

Comparison of actual accomplishments with the goals established for the reporting period:

Advanced Growers Seminars

Four Advanced Grower Seminars were held on November 9, 2014, March 29, 2015 (as part of the NOFA/RI 2015 Winter Conference), November 21, 2015 and February 28, 2016 (as part of the NOFA/RI 2016 Winter Conference).

NOFA/RI far exceeded the target of 15 participants for each Advanced Grower Seminar. 262 participants attended the four seminars for an average of over 68 participants per seminar.

NOFA/RI Advanced Grower Seminars, along with CRAFT On-Farm Workshops and Organic Farming Conference(s) / Winter Conference(s) are expected to increase the sustainability, efficiency, profitability, conservation and food safety of farms that produce specialty crops using organic methods.

NOFA/RI Advanced Grower Seminar sign-in sheets showed that these seminars served beginning, experienced and aspiring farmers, as well as agricultural service providers, gardeners and consumers. Over the four Seminars held, 262 participants attended including 97 farmers, 7 apprentices, 22 aspiring farmers and 5 agricultural service providers.

CRAFT On-Farm Workshop Program

Fourteen CRAFT On-Farm Workshops were held in this grant-reporting period between October 1, 2014 and March 31, 2016. Storm damage forced cancelation of a workshop originally scheduled in October 2015.

We exceeded the target of 10 participants for each CRAFT On-Farm Workshop. In 2016, 52 participants attended three workshops for an average of 18 per workshop. In 2015, 92 participants (farmers, gardeners and others) attended six workshops for an overall average of 16 participants per workshop.

When counting only farmers (here defined as farmer, apprentice, aspiring farmer and agricultural service providers), we nearly achieved the target of ten participants for each CRAFT On-Farm Workshop. In 2016, 35 farmers attended three workshops; in 2015, 56 “farmers” attended six workshops. Overall, 91 farmers attended nine workshops making an overall average of nine “farmers” per CRAFT workshop.

Organic Advisors Program

Target Goal exceeded: Five farmers received assistance during the grant period.

- Roma Neighborhood Farms, a beginning farm growing produce for restaurants
- Greenvale Farm and Vineyard is an established vineyard. The next generation is joining the farm business and adding new crops including hops and cut flowers. They will add bees and honey next year.
- Sidewalk Ends Farm, an urban farm looking to increase production and nutrient density of their crops
- Erin Rose, who acquired a farm and needed to learn basic farming practices
- Kimberly McGee, also a new farmer with a plan to grow organic specialty crops in a greenhouse.

One farmer did not complete an evaluation; we accomplished the goal of four farmers reporting that they benefitted from the program.

BENEFICIARIES

Provide a description of the groups and other operations that benefited from the completion of this project's accomplishments.

o Clearly state the number of beneficiaries affected by the project's accomplishments and/or the potential economic impact of the project.

Advanced Growers Workshops

262 participants attended the four seminars for an average of over 68 participants per seminar.

CRAFT Workshops

Overall, 91 farmers attended nine workshops making an overall average of nine “farmers” per CRAFT workshop.

Organic Advisors Program

Five farmers received assistance during the grant period.

The numbers of farms listing themselves as “Organic,” “Some Organic,” “Chemical Free” or “IPM” grew by over 35% on the Farm Fresh Rhode Island website (www.farmfreshri.org) from 144 farms in January 2014 to 195 farms in August 2016.

LESSONS LEARNED

Offer insights into the lessons learned by the project staff as a result of completing this project. This section is meant to illustrate the positive and negative results and conclusions for the project.

Describe unexpected outcomes or results that were an effect of implementing this project.

Lessons learned should draw on positive experiences (i.e., good ideas that improve project efficiency or save money) and negative experiences (i.e., lessons learned about what did not go well and what needs to be changed).

Advanced Grower Seminar / Winter Conferences

The team putting together the 2015 NOFA/RI Winter Conference found it surprisingly simple. Co-organizers shared tasks with contractors and volunteers. Anecdotal feedback was very positive and led to an even stronger 2016 Winter Conference. The following year, organizers managed speaker fees and travel costs, keeping costs down for the 2016 Conference.

Workshops held in November – March should be indoors and on weekends. In Rhode Island, program attendance is best on Sunday afternoons as many farmers attend farmers markets on Saturdays.

Bringing in nationally known speakers typically increases audience size and potential revenue, but it also increases expenses including speaker fees, travel, lodging and meals.

Offering several tracks for farmers, gardeners and consumers helped diversify the potential attendance. Seeking sponsorship including the workshop venue host helped offset conference costs. Offering beginning farmer a work share volunteer rate helped make the events accessible to all, regardless of their financial status.

CRAFT On-Farm Workshops

Attendance is best on Tuesdays, Wednesdays or Thursday evenings for workshops starting at 5:30 or 6 in June and July. To finish before dusk, August and September workshops should start earlier.

On-farm workshops need covered or indoor spaces with sufficient space or a rain date.

CRAFT host stipends of \$100 for a 60-90 minute workshop is not always sufficient incentive to a farm host. They often spend significant time in preparing handouts and presentations for their workshops. We should offer a reasonable hourly rate in respect for the preparation necessary to offer a high quality educational workshop, not just a walk around the farm.

Offering CRAFT workshops free, made these events accessible to all, regardless of their financial status.

Free workshops brought in homesteaders and gardeners teaching ways to improve their growing practices for specialty crops.

Consumer attendees to free workshop were better able to understand organic and sustainable grower practices. Their questions and comments informed farmers and producers on marketing to consumer interests and questions.

Organic Advisor Program

Participation in the advisor program is based on the frequency of applications received, and therefore has been sporadic. Consistent publicity for the program allowed us to meet our goal for participation.

CONTACT PERSON

Name the Contact Person for the Project, Telephone Number and Email Address

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Final Report for Specialty Crop Project 12-25-B-1694 UNIVERSITY OF RHODE ISLAND

Project Title:

Improving Yield and Quality of RI-Grown Melons through Innovations in Control of Striped Cucumber Beetle

Project Summary:

This project was initiated to improve yields and quality in RI-grown muskmelons by improving control of the striped cucumber beetle (*Acalymma vittatum*). Both adult and larval beetles feed on melon plants, with the larvae feeding on the roots and adults feeding on stems, leaves, flowers, and fruit. The adult beetles are vectors for *Erwinia traechiphila*, which causes bacterial wilt in cucurbits. Root damage by larvae increases melon plants susceptibility to fungal pathogens, particularly *Fusarium oxysporum*, which causes fusarium wilt. Striped cucumber beetles are also pests of other cucurbits, but muskmelons are particularly sensitive to damage. Adult striped cucumber beetles are highly mobile, making them challenging to control. Young melon plants can be protected with systemic insecticides applied at planting, or with rowcovers. However, neither method is effective once melon plants begin flowering. Foliar insecticides with long residuals are effective, and are labelled for use on melons, but are also highly toxic to bees. Melons are bee-pollinated and bloom continuously, so bees are likely to be exposed to foliar insecticides.

According to the USDA Census of Agriculture, muskmelons are a relatively minor crop in Rhode Island, with only 13 farms and 6 acres in 2012. However, Farm Fresh Rhode Island's Local Food Guide lists 191 farms as offering cantaloupe for sale. While some of these farms are in eastern Connecticut or southeastern Massachusetts, it is clear that the census under-estimates the number of Rhode Island farmers growing melons. Melons are also good candidates for increased local production. Many varieties are now available with effective powdery mildew resistance, decreasing the need to apply fungicides. Furthermore, melons are not damaged by spotted wing drosophila or winter moth, making them a good alternative to blueberries or summer raspberries.

Project Approach:

Damage caused by the first (overwintering) generation of striped cucumber beetles on melons can be prevented using transplants and rowcovers to protect plants during rapid vegetative growth. Therefore this project focused on controlling the larval stage, with the expectation that preventing damage to roots and crowns would prolong healthy foliage on the plants and increase melon yields and quality. Melons were grown using plasticulture and products known to be effective against soil-dwelling beetle larvae were applied into the melon root zone through the drip irrigation system.

We conducted two years of tests at the Gardiner Crops Research Farm of the RI Agricultural Experiment Station. In 2014 the products tested were the insect pathogenic fungus *Beauveria bassiana* (Botanigard), a mixture of entomophagic nematodes, and the insect growth regulator

azadirachtin, which is derived from neem seed. The three products and a water-only control were tested on five melon varieties: Athena, Cleopatra, Maverick, Sugar Cube, and Wrangler. In 2015 we tested three different rates of Botanigard, as well as mixtures of the lowest rate of Botanigard with azadirachtin and with the nematodes. To allow for the additional treatments, only three melon varieties were used: Goddess, Athena, and Maverick.

All of the melons were started in the University of Rhode Island greenhouses using Metromix soilless mix and 38-cell plug trays with one seed per tray. Four-week-old seedlings were transplanted by hand into raised beds covered with black plastic mulch. Prior to shaping beds a cover crop of hairy vetch was incorporated, and the soil was amended with potash. Additional nutrients were applied via fertigation. Transplanting took place in the first week of June both years. Transplants were spaced 2 ft apart along a single line of drip tape. Immediately after transplanting beds were covered with Proteknet to exclude cucumber beetles and clear slitted plastic to create a warm microclimate and accelerate plant growth. Covers remained in place for approximately 3 weeks.

Striped cucumber beetles overwinter in the soil on the edges of fields, and emerge when the soil temperature at the depth at which they are buried reaches 55 degrees F. The timing of emergence can vary widely, but in both years of this study adult beetles were first detected in the melon field June 20-22. Adults begin mating and laying eggs immediately; eggs take approximately 5 days to hatch. We made the first applications 4 days after beetles were detected in 2014, and 7 days after beetles were detected in 2015. Applications were repeated two more times at 10 day intervals each year. Melons were harvested from August 1-25, 2014 and from July 28 – September 3, 2015.

Data were collected on the total, marketable, and cull fruit from each variety and row, and on the total fruit weight. Three fruit of each variety from each row were tested for total soluble solids, which correlates with sugar levels in melons. Melon plants were visually rated for vine health at the beginning and end of harvest. We attempted to trap and count emerging second generation adult beetles as a measure of larval survival, but were unsuccessful.

In 2014 The *Beauveria bassiana* fungus significantly increased plant health relative to the control, averaging 68% green foliage as compared to 53% in the control. The other two products did not differ from the control, suggesting that they had minimal effect. There were no statistically significant differences in fruit yield or quality with any of the treatments. However, the *Beauveria bassiana* treatment resulted in the highest sugar levels across all varieties in the easternmost block, and in 3 out of 5 varieties in the center and western blocks. These results suggest that *Beauveria bassiana* has potential to improve fruit quality. For reasons that are not entirely clear there was a strong gradient in days to maturity across the field, with the westernmost rows maturing first. Fruit quality in particular is very sensitive to weather conditions in the final stages of fruit ripening, and to fruit maturity, so the differing maturity dates could have obscured any effect of treatment on quality. However, when quality data were ranked for each variety x treatment combination and the rank sums analyzed, the control treatment had the lowest fruit quality, suggesting that all of the treatments were somewhat effective. The control treatment also had the lowest overall yield.

Based on the success of the *Beauveria bassiana* fungus in 2014, we altered the treatments for 2015 to test multiple application rates of the fungus, and to test its effects when combined with azadirachtin or nematodes. We also altered the protocol for testing fruit quality so that all fruit for a particular variety were sampled on the same day. However, in 2015 there were no significant or consistent differences between any of the treatments and the control. In general yields and quality were excellent in 2015, suggesting that no significant beetle damage occurred.

After two years of trials, we have concluded that if *Beauveria bassiana* has any effect on melon yields or quality, it is small and difficult to detect. In both years, the effect of location within the field was greater than the effect of the various treatments. It is likely that in order to detect an effect of *Beauveria bassiana* it will be necessary to have many more replications, and possibly higher beetle pressure. At this point we cannot recommend that growers use *Beauveria bassiana* or any other product to target larval cucumber beetles in melons.

Goals and Outcomes Achieved

All of the tasks proposed for this project have been completed. However, we did not achieve the expected measurable outcomes because none of the control methods proved successful in reducing larval feeding on melon plants. As a result, the control strategies have not been adopted by growers. The cause of this failure is unclear. Cucumber beetle damage is known to be highly variable from place to place and year to year, and most field studies of control measures have been inconclusive. While melon yield and quality are easier to measure than direct larval survival, and are more relevant to growers, they are affected by many factors other than beetle damage.

Beneficiaries

Since the control methods tested were not successful, this project has produced minimal benefits for the growers who were its intended beneficiaries. However, this project has provided opportunity for three URI undergraduate students to gain field research experience. We also donated several tons of melon fruit to the Rhode Island Food Bank and the Johnnycake Center of Peacedale, benefiting less fortunate residents of Rhode Island who depend on food pantries.

Lessons Learned

The primary lesson learned from this project was that field location has an enormous effect, so many small replications are better than a few large ones. While none of the control measures tested were successful, we did learn several things about growing muskmelons in Rhode Island. Specifically, we learned that in years where beetles do not emerge until the second half of June, melon plants grown under slitted plastic rowcovers are large enough at beetle emergence that bacterial wilt is not a problem. We also learned that re-applying rowcovers during fruit maturation can significantly increase sugar levels, at least in cool summers. We will continue to follow up on these lessons, which should prove useful to growers.

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