

FINAL PERFORMANCE REPORT

A Final Performance Report must be received within 90 days after the end of the grant agreement. Final Performance Reports are required to fulfill the terms of the grant agreement, and are an important vehicle for sharing research findings with other interested groups and the public. The completed Final Performance Report will be posted to the AMS website.

GRANT INFORMATION

AGREEMENT

AMS Agreement Number:	14-FSMIP-NV-0009			
Project Title	Nevada Value Added Marketing Research and Education Program			
Period of Performance:	Start Date:	9/30/14	End Date:	9/29/2017
Award Amount:	35,450			
Match Amount (if applicable):	35,450			

RECIPIENT

Recipient Name:	Organization	<i>Lincoln County Regional Development Authority</i>
Recipient's Project Contact		
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PERFORMANCE NARRATIVE

PROJECT BACKGROUND

Provide enough information for the reader to understand the importance or context of the project. This section may draw from the background and justification contained in the approved project proposal.

This project built upon a previous 2010 Specialty Crop Block Grant award from Parent Award 12-25-B-1081. This study discovered that there was confusion on the process for producers to become approved for creating value added foods in Nevada due to ambiguity in the laws and their interpretation. The project was successful in clarifying approval processes through working closely with the health department, agriculture department and a food specialist. The FSMIP project was geared at building a resource of more detailed information on how to

create processed foods in Nevada effectively and legally. The project built on the knowledge of assessing different value-added food enterprises by producers from the previous grant by building a resource of more detailed information on how to create processed foods in Nevada effectively and legally. Consumer demand for local fresh and value-added food products has expanded dramatically over the last decade, however small local farms struggle with profitability. This project worked to enhance the economic viability of small farms in Nevada by introducing business concepts and specific expertise in creating and marketing simple value-added products. The project approach included performing a market study involving consumer habits and preferences, researching processing procedures, and developing curriculum based on these findings that would facilitate success in creating value-added products. A series of workshops in Reno, Las Vegas and rural Nevada were provided on research results for value-added marketing techniques to help producers enhance their businesses. This also included the development of an educational booklet and guide to value-added products in Nevada. The objectives of the project were: 1) to educate food entrepreneurs and producers on the steps for making a food product legal for sale in Nevada, marketing techniques and important considerations for food businesses; 2) Identify the markets for value-added products in Nevada and their characteristics through surveys of likely markets such as natural food stores, chefs and farmers markets; and 3). Provide more jobs and income through value-added products and increased income for specialty crop producers through a higher value use of less premium crops or surpluses. Lincoln Communities Action Team (LCAT) was initially leading the project which was eventually transferred to Lincoln County Regional Development Authority.

ACTIVITIES PERFORMED

Direct marketing strategies and the development of value-added products are essential for Nevada small farms to increase profitability for year-round farm sales. This project included activities that worked towards developing and teaching a curriculum that outlines how to build a value-added business for simple/safe products in Nevada. The curriculum was also developed based on a market study conducted on consumer habits and preferences to assist producers with creating products that would likely be sold.

Develop Market Study

The market study was attempted with designed survey questions and discussions with natural food store representatives. The goal was to compile a record of local food items available for sale in Reno and Las Vegas, and to capture consumer preferences. A particular challenge during this objective of the project was the drastic turnover in natural grocery store staff. As a result, the only way to collect data on local foods in stores was to track store policies, producer experiences, and by documenting local food items available in the stores. A survey was launched for a year by continuing to contact representatives of natural food stores, farmers markets and industry requesting them to complete the survey but received very limited response despite in-person contacts. The market study information was compiled and presented in the workshops and will be placed on the online curriculum.

The study of consumer preferences had limited success in the project due to difficulties in collecting data from representative consumers. Policy and staff changes in the natural food store chains created barriers in surveying clients' buying habits and preferences, which then could be shared with local value-added producers. The study of available avenues to survey the public through food blogs was unfruitful because most were national or global public, or very small groups tied to very specific regions. Data on farmers markets' consumers across the state was analyzed by University of Nevada Cooperative Extension (UNCE) and eventually taught. UNCE research on consumers in Nevada farmers markets have provided information on how to sell to this market (Cowee et. al, 2009).

To gain the needed education on analyzing the desires of target consumers, the participants were taught how to collect information themselves. The wide diversity of products being made by participants resulted in highly variable target markets which made it difficult to provide a consumer profile market background.

Curriculum/Workshops

The target food products in this education program were those listed in the Cottage Law, Craft Foods law and products that can be created in a simple more affordable commercial kitchen. Selected value-added products included the following:

- Bread and baked goods that include herbs, vegetables and other specialty crops
- Cut and packaged vegetables
- Frozen produce
- Refrigerated products-salsa, dips, sauces
- Acid canned products- not all ingredients below 4.6 pH and acid added
- Dried herbs/produce
- Candy
- Vinegar-flavored with herbs and vegetables

A value-added curriculum was piloted and designed with specific business organizing skills to enable Nevada specialty crop producers to increase their knowledge and take action to increase farm profitability. An effective curriculum was built on expertise gained from previous value-added work by Extension, researching and developing publications on needs for the production of specific products and converting content ideas used from successful curriculums developed by Penn State University and Main Cooperative Extension to what will function in Nevada.

Workshops were held on findings from market research and Nevada value-added processing procedures.

Participants were given the tools needed to successfully evaluate new opportunities to expand specialty crops in Nevada. The workshops taught business skills, an understanding of requirements to value-added foods, and marketing concepts together to diversify the availability of on-farm products. Producers learned the following:

- Business planning related to costs and pricing;
- Governmental code, USDA and Nevada regulations, and licensing procedures for producing and selling different value-added products to different markets;
- Product labeling and inventory management
- Value-added markets, options and market profiles
- Business entity types, ownership structures and contracting;
- Business liabilities related to insurance coverage

Experts in food safety (Karin Allen, Food Processing Specialist, Utah State University), small business development management and business experts (legal) were included in workshops to create supportive relationships that will carry the participants into successful businesses.

To achieve the greatest impact, the workshops were held in October, November and March of 2015 and 2016 with a total of 35 participants. Participation included the following:

- October 2016: 13 participants at the Pahrump training
- November 2016: 18 participants from agriculture regions throughout the state (Reno, Yerington, Caliente, Ely, Carson City, and Winnemucca
- March 2017: 4 participants video conferenced from Caliente, Carson City, Elko and Battle Mountain

The workshops were promoted as part of Cooperative Extension's Herds & Harvest (Beginning Farmer/Rancher program) and local food program. Project Coordinators worked closely with agriculture experts across institutions to ensure that current statewide needs related to workshop topics are included in educational programs. Pahrump and Fallon locations were selected as the onsite locations because they are bedroom communities to Las Vegas and Reno and have a concentration of new food businesses with the largest collection of cottage foods permit holders in the state.

Presentations were made to 199 people in 5 different presentations (separate from the workshops aforementioned). Presentations were requested and provided to the Las Vegas Master gardeners (100 participants), a food processing workshop in Carson City (21 participants), and three presentations in 2016 and 2017 at the Nevada Small Farm Conference (77 total participants). The information was also provided as a booth at the University of Nevada, Reno 2016 Field Day.

Workshops resulted in participants requesting access to an effective and affordable inventory tracking spreadsheet for ingredients and finished product. A program introductory video and the program curriculum was uploaded online as an ongoing resource for producers and consumers.

Near the beginning of the award, a Craft Foods Law for acidified foods was released allowing defined acidified foods to be produced in personal homes and sold direct to consumers. The requirements and registration process for acidified foods required more time than anticipated. Acidified foods are a common product of interest for the hobbyist or to those new to value-added products, so incorporating the process for registering as a craft foods operation delayed the project by 1 year. This was critical information to include in the project curriculum. Holly Gatzke, Project Coordinator participated on the implementation team with the Nevada Department of Agriculture for how best to address any food safety concerns and create a feasible program for interested producers.

Workshops were held across Nevada and single presentations were provided to varying audiences during five separate presentations (3 workshops, 2016/2017 Small Farms Conference, Master Gardeners presentation). Project directors, Holly Gatzke and Staci Emm developed an educational manual called, “Starting a Food Business in Nevada” which was used in each workshop and continues to be sent out upon request. The objectives of the project were the following: to educate food entrepreneurs and producers on the steps for making a food product legal for sale in Nevada, markets, and important considerations for the food business (90% gain in knowledge); Provide more jobs and income through value-adding local produce into products (52 new products by workshop participants after the first year); Increased income for specialty crop producers through a higher value use of less premium crops or surpluses; Identified the markets for value-added products in Nevada and through studying likely markets in natural food stores and farmers markets. All workshop and program information is uploaded online <https://www.unce.unr.edu/counties/lincoln-new/producing-food/starting-a-food-business/> as a resource for producers and consumers. Direct marketing strategies and the development of value-added products are important for Nevada small farms to increase profitability for year-round farm sales.

Project staff manned a booth at the University of Nevada Research Station Field Day on September 24th, 2016. Materials were displayed and discussions were held to over 120 people on developing a local food business. The curriculum is available online at (<https://www.unce.unr.edu/counties/lincoln-new/producing-food/starting-a-food-business/>) which is currently on the Lincoln County Extension website but will be moved to the Herds and Harvest website once it is launched by the university.

The following peer reviewed publications were produced as background and content for presentations and workshops:

Roemer, M. Gatzke, H.M., Allen, K., 2017. Starting a Flavored Vinegar Business in Nevada. Reno, NV: University of Nevada Cooperative Extension Special Publication. SP-17-0

Roemer, M. Gatzke, H.M., Allen, K., 2017. Starting a Candy and Convection Business in Nevada. Reno, NV: University of Nevada Cooperative Extension Special Publication. SP-17-0

Gatzke, H.M., Allen, K., Bishop, C. 2017. Starting a Craft Food (Pickling) Business in Nevada. Reno, NV: University of Nevada Cooperative Extension Special Publication. SP-17-0

Gatzke, H. M., Allen, K., West, T. 2016. Nevada Processed Food Guide: Frozen Produce. Reno, NV: University of Nevada Cooperative Extension Special Publication. SP-16-07

Gatzke, H. M., Allen, K., West, T. 2016. Nevada Processed Food Guide: Refrigerated, Cut Produce. Reno, NV: University of Nevada Cooperative Extension Special Publication. SP-16-06

West, T., Gatzke, H. M., Allen, K., Emm, S. K. 2015. Starting a Dried Fruit and Herb Business in Nevada. University of Nevada Cooperative Extension Special Publication. SP-15-1

West, T., Gatzke, H. M., Allen, K., Emm, S. K. 2015. Starting a Jams, Jellies and Preserves Business in Nevada. University of Nevada Cooperative Extension Special Publication. SP-15-2

These publications are or will be posted in the near future on the University of Nevada Cooperative Extension website as well in the Herds and Harvest Website when it is relaunched late this year and were used in the curriculum. A paper is near completion on inventory.

The curriculum also includes information on how to interpret federal requirements for food processing, state requirements for food processing, inventory needs and a full series of business considerations.

OBJECTIVES

Provide the approved project's objectives.

#	Objective	Completed?	
		Yes	No*
1	Educate food entrepreneurs and producers on the steps for making a food product legal for sale in Nevada, food markets, important considerations for the food business, and where to gain further information to build the business.	x	

2	Provide more jobs,, income and increase income for specialty crop producers through a higher value use of less premium crops or surpluses.	x	
3	Identify the markets for value-added products in Nevada and their characteristics through surveys of likely markets such as natural food stores, internet sale outlets, chefs and farmers markets.	x	
4			

**If no is selected for any of the listed objectives, you must expand upon this in the challenges and lessons learned sections.*

ACCOMPLISHMENTS

List your accomplishments for this reporting period and indicate how these accomplishments assist in the fulfillment of your project’s objective(s), outcome(s), and/or indicator(s). This listing should identify your project’s partners and their contributions.

#	Accomplishment	Relevance to Objective, Outcome, and/or Indicator
1	The goal was to increase 30-40 of participating food entrepreneurs and producers knowledge but a 90% increase was experienced based on surveys.	Post workshop and conference surveys were disseminated to gauge an increase in knowledge as a result of the workshops. Surveys indicated that a 90% increase in knowledge was experienced. Three workshop series involved 46 participants. 15 participants indicated that they plan to take actions in their business based upon the workshop content. Overall presentations were made to 199 people in 5 different presentations and 46 participants during three workshops.
2	Participants have goals of 120 new products with 60 new products being sold after one year. At the conclusion of the grant, 31 new products were being sold by participants with a target of 102 new products in the next year.	At the onset of the project most of the participants indicated they were not producing value-added products but were present to learn the process and to determine if food processing is the business they want to go into. Of those making food, there were 28 products being produced by the participant. At the end of the grant, 4-10 months after the workshops, 24 additional new products were being sold (this increase is only representative of the few that responded to the post survey. Participants indicated that they anticipate producing 102 products within the next year. Local communities will gain jobs and income from the development of a local food industry. The sale of food locally can provide

#	Accomplishment	Relevance to Objective, Outcome, and/or Indicator
		<p>economic benefits due to the positive 1.45 to 1.58 multiplier effect on both income and the number of jobs (Economic Research Service, 2010). With a 1.45 multiplier effect, the value of new value-added production would generate \$441,960 in the coming years. People will continue to learn from the curriculum being online and during presentations in the future creating ongoing impacts. If 10% (1/3 of the estimated 30% industry standard food costs) of the business income (\$304,800) was specialty crops and it was used in value-added production for a price 30% higher in value rather than being used for feed or compost than the special crop sales would result in approximately \$100,000 extra in growers pockets in each coming year due to the value-added activity.</p>
3	<p>Generate a general story of local demand and preferences for local value-added products with a focus on natural grocery stores.</p>	<p>The local market was studied during the grant period and taught in the workshops and during presentations. This study outlined the changing demand and complexity of selling local products into grocery stores, farmers markets and other sales avenues in Nevada.</p> <p>The local market information consisted of outlining different market opportunities in farmers markets, festivals/craft fairs, grocery stores and online sales. Requirements to sell a local food product through stores became more difficult during the grant period. The chain natural food stores changed their policies to more complicated requirements to accept local products for sale. The contact for sales moved to larger regional sales centers in other states. Further there were additional internal quality control certifications required beyond all those producers need to acquire. Although the interest and demand</p>

#	Accomplishment	Relevance to Objective, Outcome, and/or Indicator
		for local foods is higher, there are now 20-75% less local foods in the natural food chain stores. During product studies of natural food stores, the stores started making much more of their own which creates competition for cut and pre-pared produce, salsas and other products. Small privately owned stores provide an opportunity for local food sales. Farmers markets and festival sales opportunities were outlined as well. These changes in local food markets were taught in workshops and classes. The participants were also taught how to identify their target market and collect data to study their potential market trends.
4		

CHALLENGES AND DEVELOPMENTS

The first change of importance was a one year delay in the project to wait for the implementation of a new Craft Foods law which provided an easier value-added processing avenue for producers. Holly Gatzke participated in the team that planned the implementation. During that time, staff changed which resulted in contracting of assistance. It was also decided that the amount of curriculum was becoming more than expected and so more time and therefore cost was needed to build a quality webpage and so we transferred graphic design costs to website building.

The delay in the workshops to include the new Craft Foods law resulted in less time to work with participants post workshop and before the completion of the grant. We did not reach the targeted new products because we did not anticipate such a high proportion of participants so early in their business concepts which created a higher proportion not engaging in a business. Many of the participants moving forward with their businesses are still in the planning stage. The remaining participants are a mix of hobby type businesses and some serious business developments.

#	Challenges or Developments	Corrective Action and/or Project Change(s)
1		
2		
3		
4		

LESSONS LEARNED

Provide recommendations or advice that others may use to improve their performance in implementing similar projects.

The written comments compiled from workshop evaluations demonstrated that participants felt they gained the knowledge they needed to create a successful business. Comments also demonstrated that they were excited to start their businesses and some were rethinking whether they were willing to start a food business due to their new knowledge on the business needs around food regulation and bookkeeping needed to be successful. Follow up contacts are still being made with participants to provide further education needed to support success.

During workshops, participants discussed the need for an inventory tracking tool that is easy and feasible for a small business. Current systems are too large and expensive because they are designed for large companies. In response and as part of this grant, an Excel system has been developed to track value-added product ingredients, products sources and amounts. This tool is currently being pilot tested by value-added food processors and will be made available on our website in Nevada as well as the Food Processing Center at Utah State University in the next few months.

During the project it became apparent that stricter regulations, larger business, and university administration paths are becoming less feasible for collaboration in Extension projects. This trend of greater barriers must be considered when designing future projects. Although there were challenges with obtaining a completed market survey, the multiple trips to the market during the grant produced valuable information of the changes occurring in the industry that were taught in the workshops.

CONTINUATION AND DISSEMINATION OF RESULTS (IF APPLICABLE)

Describe your plans for continuing the project (sustainability; capacity building) and/or disseminating the project results.

The education program will not end at the conclusion of the grant because the curriculum will be used for ongoing presentations, workshops, conferences and by the public online for many years to come. The curriculum created may be converted for use in other states.

OUTCOME(S) AND INDICATOR(S)/SUB-INDICATOR(S)

Provide the results of the project outcome(s) and indicator(s) as approved in your application or approved amendment to your application.

OUTCOME AND INDICATOR RESULTS TO DATE

Quantify the overall progress on the outcomes and indicators of your project.

#	Outcome/Indicator	Quantifiable Results
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1	Increased knowledge of market research, value added processes, and consumer preferences.	235 cumulative participants based on attendance at workshops and conference presentations.
2	Provide more jobs and income through value-adding local produce into products and increase income for specialty crop producers through a higher value use of less premium crops or surpluses.	24 new value-added products were created by the end of this award. The targeted income of the value-added food sales next year was estimated at \$0 to \$200 by eight participants, \$2001 to \$10,000 by four participants, \$10,001 to \$30,000 by two participants, \$30,001 to \$50,000 by one and over \$100,000 by two participants. One third of the participants learned that the business they were planning was not feasible or a fit for them and decided to no longer pursue the venture. These participants enjoyed the course and were grateful that the course taught them the foundation needed to make wise decisions on their business concepts. The project participants estimated they will create \$304,800 in sales in the next year (($\$100 \times 8$) + ($\6000×4) + ($\$20,000 \times 2$) + ($\$40,000 \times 1$) + ($\$100,000 \times 2$)). This exceeds the grant projected economic impact of 120 participants creating \$117,450 over 3 years.
3		
4		

DISCUSSION OF RESULTS

If necessary, include further explanation of the quantifiable results to date.

Beneficiaries

The beneficiaries are growers of produce and specialty grains in Nevada and local communities. The activities in the grant directly taught 58 farmers about value-adding. The rest of the participants learned how to reach farmers to use their specialty crops in their food products (93% increase in knowledge up to a 4.25 out of 5). This project will create further demand and use for the specialty crops in Nevada and increase the profitability of those crops by providing markets for some of the less marketable produce in its fresh state for years to come.

PROJECT EXPENDITURES

EXPENDITURES

Cost Category	Federal Funds Budget (FEDERAL PORTION ONLY)		Matching Budget (IF APPLICABLE)	
	Approved	Actual	Approved	Actual
Personnel	1,500	1,500	25,810	35,281
Fringe Benefits	500	500	7,485	
Travel	4,750	5,970	550	169
Equipment	0	0	0	
Supplies	0	0	600	
Contractual	23,700	23,700	0	
Other	5,000	3,780		
Direct Costs Sub-Total	35,450	35,450	35,450	35,450
Indirect Costs				
Total	35,450	35,450	35,450	35,450

PROGRAM INCOME (IF APPLICABLE)

N/A

Source/Nature (i.e., registration fees)	Amount Approved in Budget	Actual Amount Earned
1.		
2.		
3.		
Total Program Income Earned		

Use of Program Income

Describe how the earned program income was used to further the objectives of this project.

ADDITIONAL INFORMATION

Provide additional information available (i.e., publications, websites, photographs) that is not applicable to any of the prior sections.