

FOOD SAFETY OUTREACH PROJECTS (FSOP)

EVALUATION SUMMARY

Evaluator: Dr. Amy Harder, Professor, University of Florida

METHODS

An online survey instrument was developed by the lead evaluator, Amy Harder, in early 2019. Questions were derived by reviewing abstracts of current projects as well as the funding agency’s request for proposals. An expert panel consisting of scientists from the Lead Center conducted the initial review of the instrument and provided clarification on technical items. The instrument was then provided to Dr. Jodi Williams, National Program Leader for Food Safety, USDA-NIFA for approval prior to distribution; approval was received from Dr. Williams as well as the University of Florida IRB.

The population for the evaluation consisted of the project directors (PDs) of all active FSOP projects. The frame was provided by USDA-NIFA. All PDs received an initial notice via e-mail, describing the study and providing them with a copy of the instrument to preview. Data collection officially began, using Qualtrics, on April 29, 2019. Each PD ($N = 63$) received a personalized link to the evaluation instrument. One e-mail invitation bounced, reducing the accessible population to 62 potential respondents. A reminder e-mail was sent on May 17, 2019. A total of 35 usable responses was received, for a 56.45% response rate (see Appendix A for a detailed listing of responding projects). Nearly all respondents indicated their projects were not completed.

MAJOR FINDINGS

Overview

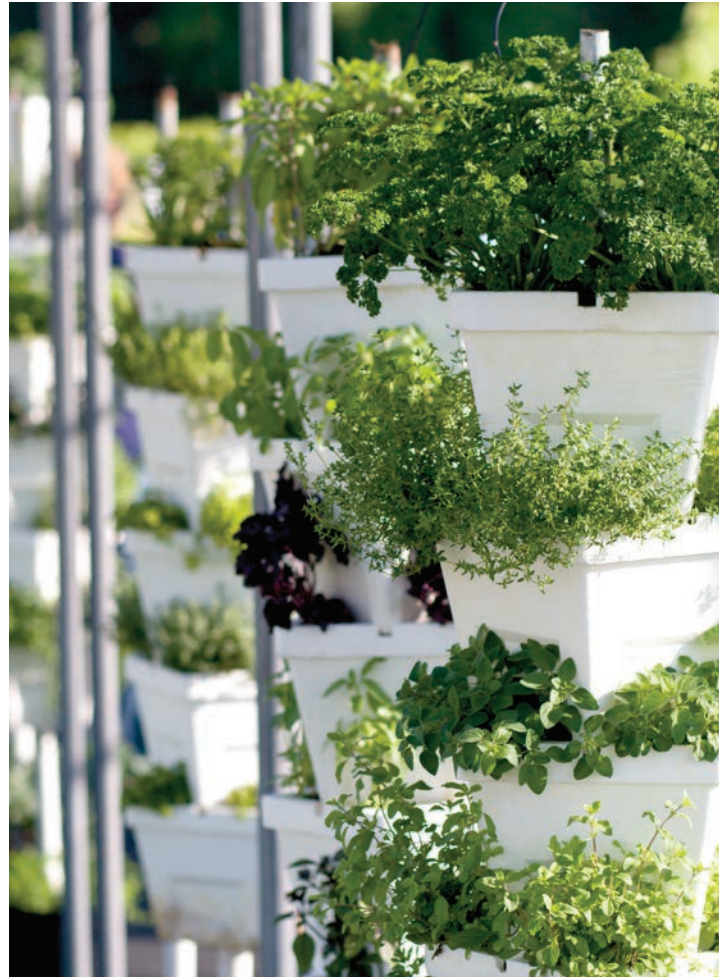
This section provides information about the aggregated outputs and outcomes of the reporting FSOP projects. Duplicate responses have been combined where appropriate for the sake of brevity (e.g. commodities, target audiences). Similarly, bulleted lists have been used for clarity. Additional detailed information about project highlights is provided in Appendix B.

Primary Purpose of Project

Purpose	n
Create new curricula, educational resources, and/or training materials	27
Deliver trainings and workshops	26
Develop new groups and/or communication networks	6
Develop new or novel educational delivery mechanisms	3
Develop new physical tools and/or equipment	2

Specific Commodities

- Produce
 - Specific crops mentioned: strawberries, hot peppers, cabbage, onions, carrots, Asian leafy vegetables
- Maple syrup and maple products
- Culinary herbs
- Fermented, acidified, and acid foods



Common Food Safety Issues Addressed by Project

- Good Agricultural Practices (GAP) certification
- Produce safety
- Good Manufacturing Practices
- Hazard Analysis & Critical Control Points
- Food Safety Manager and Food Safety Preventive Controls Alliance (FSCPA) Preventive Controls for Human Foods
- Farm food safety
- NIFA related food safety information



- General risk management practices on farm specific to strawberries
- Need for education related to new policy
- Allergens, Food Safety Modernization Act (FSMA), Quality Assurance/Quality Control procedures, Safe Quality Food, food defense, etc.
- How to sell a variety of specialty foods in the direct market
- Addressing awareness on risk assessment, risk analysis, and risk management
- Agricultural water safety
- Allergen management in shared use kitchens, pathogen cross-contamination
- Food safety issues of small, minority, disadvantaged, and beginning farmers

Educational Materials Projects

- a. Present Status of Educational Materials Projects (as of May 2019) (See Table 1).

- b. Format of Educational Materials
 - 22 printed resources
 - 18 online resources
 - 3 videos
 - 3 smartphone applications
 - 2 audio resources
- c. Number of Trainings or Workshops Held
 - Produce Safety Alliance (PSA) = 14
 - FSPCA = 5
 - Other = 78
- d. Project's Target Audience(s)
 - 15 targeted growers
 - 9 targeted processors
 - 1 targeted wholesaler
 - 6 targeted Extension agents
 - 5 targeted "other" audiences, including cottage food operators, college students, small business owners, food hub managers and staff, train-the-trainers, and non-profit educators

Table 1.

Primary Purpose of Project	Intend to	In Progress	Complete	N
Create new curriculum, educational resources, and/or training materials	2	17	6	25
Adapt existing curriculum, educational resources, and/or training materials for special populations	5	11	3	19
Translate existing curriculum, educational resources, and/or training materials into another language	6	3	0	9

- e. Number of participants trained
 - 374 trained PSA participants
 - 68 trained FSPCA participants
 - 1,262 participants in “other” trainings
- f. Target audiences
 - Minority and underserved growers
 - Specifically mentioned: Hispanic, non-native English speakers, New Americans, military veterans, Amish and Mennonite, Hmong, tribal audiences, small to very small producers, urban producers, sustainable and/or organic growers
 - Beginning and early stage food processors
 - Cottage food operators
 - Food industry workers
 - Food handling personnel
 - Students enrolled in the School of Natural Sciences and Technology of the Universidad del Turabo
 - Maple producers
 - Food hubs
 - Train-the-trainers
 - Specialty crop growers



- g. Availability of detailed outcome data
 - 19 PDs reported having data demonstrating knowledge, aspirations, skills, or attitudinal outcomes
 - 11 PDs reported having data demonstrating adoption of new behaviors/practices related to food safety

New Tools or Equipment Projects

- a. Purpose of project
 - Creation of water treatment mobile unit
 - Status: incomplete

Technical Assistance Network, Advisory, and/or Communication Platform Projects

Project Type	Intend to Develop	In Progress	Complete
Technical Assistance Network	0	2	1
Advisory Panel	0	1	3
Communication Platform for Stakeholders	1	1	2

New or Novel Educational Delivery Mechanisms

- Development of an online platform for writing, reviewing, editing produce safety plans, and then documenting their implementation
- Learning circles and positive deviance for farmers to learn food safety
- Field demonstration for produce safety practices for growers

EVALUATOR ASSESSMENT

The purpose of the FSOP projects is to provide food safety education and training for small and mid-sized producers and processors affected by FSMA. Data provided by the participants in this evaluation demonstrate that progress is being made that is consistent with the intent of the project funding. A limitation of this evaluation is the response rate; no conclusions can be drawn about the projects that did not have PD respond.

Most of the evaluation participants reported a focus on curriculum/educational materials development and/or workshop delivery. Most educational materials are still in progress, although 9 were reported completed (6 new and 3 adapted for special populations). A variety of formats will be available, assuming all projects complete their work successfully. Printed materials were slightly more prevalent than online materials; the availability of both will be useful for reaching a wide variety of audiences given varying access to and adoption of the Internet for education.

A substantial amount of effort has been dedicated to delivering trainings. PSA trainings were delivered almost three times more frequently than FSPCA (14 to 5). PDs reported 78 “other” trainings; this evaluation does not

provide detail about those trainings. Future evaluations will collect additional information; it was not anticipated that there would be a great need for the “other” category based on project descriptions. That error will be corrected moving forward. Over 1,500 participants have been trained to date as a result of FSOP projects. Most PDs reported targeting underserved audiences, consistent with the intent of FSOP funding. One positive aspect to note is that of the 26 PDs who indicated conducting training, 19 PDs reported having detailed evaluation data regarding short-term (knowledge, attitudes, skills, or aspirations) outcomes and 11 PDs reported having detailed data regarding medium-term (behavior change or practices adopted) outcomes. Several PDs noted this detailed information is available in their REEport submissions.

Very few PDs reported a focus on new tools or equipment, communication platforms, or new educational delivery mechanisms. The most progress appears to have been made creating advisory panels and communication platforms. However, these projects areas do not comprise a significant amount of the effort being done for the FSOPs. If they are critically important, it may be useful to emphasize them differently in future requests for proposals.

Overall, the responding PDs provided data that leads to an optimistic outlook for the positive impact of the FSOP projects. Several PDs e-mailed me directly to express their appreciation for a chance to discuss their project’s successes, indicating they have pride in their work and an eagerness to communicate about their accomplishments. Some PDs were confused as to why I was collecting evaluation data outside of the REEport system. It may be useful to review and revise the evaluation section within future RFPs to ensure PDs clearly understand what is required to demonstrate project effectiveness and to encourage inclusion of a professional evaluator on the project team. Such actions would be expected to improve the quality and quantity of evaluation data available in the future.

Respectfully submitted,



Dr. Amy Harder
Professor, University of Florida



APPENDIX A: REPORTING PROJECTS

Proposal Title	PD Last Name	PD First Name	PD State	CRIS Number	FY Awarded	PD Institution
Assisting Maple Syrup Producers to Comply with the Preventive Controls for Human Food Rule of FSMA	Bryant	Heather	NH	1017593	2018	University of New Hampshire
Mobile Produce and Practicing Food Safety Project	Small	Voulynne	NC	1014983	2017	Brother Excelling with Self-sufficiency to Thrive (BEST)
Developing a food safety culture of practice: Addressing the challenges of shared-kitchens and small-scale manufacturing operations	Faigel	Jen	MA	1017253	2018	CommonWealth Kitchen, Inc
Bridging knowledge gaps in food quality assurance to strengthen the foundation for food safety training.	Harris	Linda	CA	1017188	2018	The Regents of the University of California (Davis)
Food Safety Education Program for Veteran Farmers	Feng	Yaohua	IN	1017194	2018	Purdue University
Turabo Food Safety (TuFS) Education and Outreach Initiative	Sanchez-Vega	Margie	PR	1017105	2018	SUAGM, Inc. dba Universidad del Turabo
Food Safety for Qualified Exempt Food Producers to Build Economic Viability Under the Food Safety Modernization Act	Padilla-Zakour	Olga	NY	1017351	2018	Cornell University
Document Development and Management Training for Small-Scale Processors of Fermented, Acid, and Acidified Foods	Snyder	Abby	OH	1017125	2018	The Ohio State University
Expanding the reach of New Hampshire's food safety education and FSMA programs to include value added processors	Hamilton	Ann	NH	1017285	2018	University of New Hampshire
The CHIP Project: Developing and implementing food safety education and outreach for Commercial-Kitchens, Home-Kitchens, Incubator-Kitchens and Food Producers in West Virginia	Govindan	Megan	WV	1017169	2018	West Virginia University
Develop hands-on training to evaluate and reduce microbial food safety risk associated with agriculture water	Adhikari	Achyut	LA	1017156	2018	LSU AgCenter
Online Food Safety Training for New Mexico Food Manufacturers	Flores	Nancy	NM	1017309	2018	The Regents of New Mexico State University
Enhancing Produce Safety for Under-served Farmers in Louisiana	Malekian	Fatemeh	LA	1017147	2018	Southern University Agricultural Research & Extension Center
Supporting FSMA compliance for Californias regional food hubs through training and technical assistance	Feenstra	Gail	CA	1017208	2018	The Regents of the University of California (Davis)
Expanding Farmer Education to Create a Culture of Food Safety in the Chesapeake Region	Ward	Tracy	MD	1017262	2018	Easton Economic Development Corporation



Proposal Title	PD Last Name	PD First Name	PD State	CRIS Number	FY Awarded	PD Institution
A Primer To The Produce Safety Rule For Small And Very Small Farms In Washington State	Smith	Stephanie	WA	1017198	2018	Washington State University
Food Safety Outreach & Technical Assistance to Limited Resource, Socially Disadvantaged Small Farmers in Santa Clara, San Benito, Santa Cruz Counties	Gazula	Aparna	CA	1017189	2018	The Regents of the University of California
Expanding FSMA Produce Safety Rule Outreach to Underserved Diversified Fruit and Vegetable Farms in Minnesota	Hultberg	Annalisa	MN	1017186	2018	Regents of the University of Minnesota
Strengthening food safety education and outreach for Kansas and Missouri fruit and vegetable producers	Nwadike	Londa	KS	1010530	2016	Kansas State University
Community Accreditation for Produce safety in Vermont	Grubinger	Vernon	VT	1011005	2016	The University of Vermont and State Agricultural College
Development of an alternative FSMA compliant produce safety curriculum for plain sect and other smaller fresh produce growers	LaBorde	Luke	PA	1010626	2016	Pennsylvania State University-Univ Park
Food Safety Hazards And Preventive Control Education For Beginning And Early-Stage Small-Sized Food Entrepreneurs	Ahn	Soohyoun	FL	1010586	2016	University of Florida
Local Produce Safety Initiative	McSwain	Karen	NC	1013928	2017	Carolina Farm Stewardship Association
Integration of FSMA produce safety outreach and education into extension initiatives in Oregon	Kovacevic	Jovana	OR	1013977	2017	Oregon State University
Food Safety Education and Outreach Programming for Plain Growers	Ilic	Sanja	OH	1014011	2017	The Ohio State University
Achieving FSMA Compliance through USDA Harmonized GAP - Preparing the Four Corners Region's Diverse Farmers for Food Safety Certification	Bartley	Benjamin	NM	1017199	2018	La Montanita Food Cooperative
Continuing Food Safety Outreach and Education for Local Food Systems in California	Feiereisel	Kali	CA	1017143	2018	Community Alliance with Family Farmers
Hawaii Roots Food Safety Community Outreach Project	Romero-Briones	Vena	CA	1017251	2018	Lana'i Food Systems, LLC
Environmental Assessments to Customize Food Safety Training for Very Small to Small Strawberry Producers in the Southeastern United States	Gibson	Kristen	AR	1013980	2017	University of Arkansas
Practical Tools for Food Safety on Small, Diversified Fruit & Vegetable Farms	Koppa	Kavita	GA	1013954	2017	Global Growers Network, Inc.



Proposal Title	PD Last Name	PD First Name	PD State	CRIS Number	FY Awarded	PD Institution
Enhancing The Safety Of Locally Grown Produce For Veterans In Agriculture	Brightwell	Rebecca	GA	1013994	2017	University of Georgia
Food Safety Management Training for Small and Emerging Food Businesses: Integrating a Food Safety Culture from Concept to Commercialization	Kinchla	Amanda	MA	1014003	2017	University of Massachusetts Amherst
Food Safety Modernization Act (FSMA) related food safety education and outreach for hard-to-reach audiences in the Pacific Northwest and Alaska using current Land-Grant university Extension system	Kim	Jang Ho	ID	1010674	2016	University of Idaho
A multistate effort to integrate and expand farmers market food safety materials across the southern region to increase food safety culture	Boyer	Renee	VA	1010671	2016	Virginia Polytechnic Institute and State University
Continued Successful Implementation of FSMA in the North Central Region through Adoption of a Systems Approach and Stakeholder Engagement	Hannan	Joseph	IA	1017260	2018	Iowa State University of Science and Technology
Northeast Center to Advance Food Safety (NECAFS)	Newbold	Elizabeth	VT	1017162	2018	The University of Vermont and State Agricultural College



APPENDIX B: SELF-REPORTED PROJECT HIGHLIGHTS

Default Report
FSOP Retrospective Evaluation
June 11, 2019 6:33 PM EDT

Q16 - Are there any accomplishments that have already occurred that you would like to see highlighted in the report to the USDA? If so, please describe in detail using the text box below.

Are there any accomplishments that have already occurred that you would lik...

We are still in the development stage. We will conduct the trainings in late fall of 2019, as stated in our project timeline.

Of the forty program participants who received one-on-one direct technical assistance to date, 15 have passed a GAP Audit, 8 are scheduled for this summer and fall, and the rest are still in process.

We have received the funding in fall of 2018, set up the account and hired a training coordinator in March. We have been working on developing/modifying existing educational materials to make it easier for our growers to comply with GAP requirements. Our first training will be on June 12-13, 2019.

The curriculum is in the process of being developed and is anticipated to meet the year 1 objectives for the proposed work.

128 minority-Hispanic participants have received training in Good Manufacturing Practices, HACCP, Food Safety Management and FSPCA Preventive Controls for Human foods. The majority of these participants are small growers and small food manufacturers with a business of their own.

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We created a qualtrecs based online tool to help maple producers determine if and where they fall under the Preventive Controls for Human Food Rule of FSMA. To date it has been used 321 times.

We have completed a survey of strawberry growers primarily in Southeastern U.S. Data are currently being analyzed, but indicate that record keeping and documentation practices are the biggest hurdles in compliance with or adherence to the Produce Safety Rule. Based on this, one of the training foci will be on record keeping and documentation systems.

Vermont's Community Accreditation for Produce Safety is a voluntary, on-line program that has helped over 130 vegetable farms grow cleaner, safer product...more efficiently. CAPS guides its participants to write practical produce safety plans and then document their implementation. It grants certificates to those farms that adopt all of the required practices—identified by Vermont growers as necessary and useful. These include things like testing the water used to wash crops, training employees on sanitation, and developing standard procedures for cleaning harvest and storage equipment. CAPS is helping Vermont's growers adapt to new expectations of buyers and regulators. CAPS is effective because it was designed by vegetable farmers to make sense, and because it provides multiple benefits, on the ground, every day.

We've begun developing the curriculum and also started to deliver initial modules to start the process of adoption—understanding adoption will take time because there is a bit of a culture shift—Staff now have white coat uniforms; everyone coming to the building has to sign in and wear a badge identifying them, etc. We're also developing some simple videos to teach proper equipment cleaning techniques. We're in the process of building a robust food safety culture.

A series of 4 webinars is planned for June 2019 (one per week over 4 weeks). The website is established and registration open.

Between November 2018 and January 2019, the project team hosted a series of 3 webinars for participants in the CA Food Hub Network on how the FSMA Preventative Controls Rule applies to food hubs and what is required for food hubs to be in compliance. Participants who completed an evaluation survey about the webinar series rated the webinars as "very useful" (80% of respondents, n = 5) or "somewhat useful" (20% of respondents, n = 5). Slides for all three webinars were shared with the 58 members of the CA Food Hub Network list-serve and will continue to be available for future reference. On January 11, 2019 the team offered a subsidized FSPCA Preventative Controls for Human Food PCQI certification course tailored to food hub managers and staff. In a post-training evaluation, participants were asked to rate their knowledge of the FSMA Preventive Controls for Human Food Rule prior to attending the FSPCA Hybrid course and after attending the FSPCA Hybrid course. 0% of survey respondents (n = 12) said they were "very knowledgeable" prior to attending the course compared to 50% (n = 12) who indicated they were "very knowledgeable" after attending the course. The remaining 50% said they were "somewhat knowledgeable" after attending the course, compared to 67% who were "somewhat knowledgeable" prior and 33% who indicated they had "no previous knowledge" prior to the training.

We are developing a "branded" toolkit for farmers market vendors. To date we have completed updating "Enhancing the safety of Local Produce" and developed a new series entitled "Enhancing the safety of Locally Prepared Foods" to encompass a number of specialty food items included Fermented vegetables, kombucha, maple syrup etc...

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Results from our evaluation surveys indicate that our efforts are improving stakeholder understanding of food safety, and increasing their readiness to implement a culture of food safety on farm.

We have completed a needs assessment targeted at the food safety educational needs targeted to small and emerging food businesses.

We implemented on-farm workshops, as well as classroom-based workshops and carried out on-farm assessments on some farms before and after the workshops. Farms attending both types of workshops did show improvements in their food safety practices. We also developed an app that can help produce growers with their product traceability.

Another part of this project is our “Partner Farm” Program. We have five different farms across California that applied to be in the program. Staff at each farm work with us to improve their food safety program and then near the end of this program the farmers at each farm will host a field day to show the changes they’ve made to other farmers. At this point in time we have all five farms on board, have done the first in-person visit at each farm, and have worked through some steps in progressing each farm’s food safety program.

We developed a military veteran farmer group and delivered a series of food safety and farm sustainability workshop integrated with learning circle and positive deviance to them. This group shows a high attendance and retention rate as there is no monetary incentive. Farmers found this delivery format very helpful and easy to relate to their daily farming activities. One farmer (44 years old, female, 3 year farming experience) said, “I look forward to this monthly meeting. I can learn from my experts and my friends (peers).” We developed a series of food safety newsletters for farmer coalitions to send out monthly. All the topics were identified by focus group and interviews of farmers. They were specifically designed for veteran farmers in Indiana. We delivered one home canning workshop to farmers that were well received by the participants. They learned safe food handling practices and food safety regulations from the state and federal level. They were engaged in hands-on activities including cold- and hot-pack tomato canning. This workshop is one of the four full-day events that were proposed in our FSOP proposal. The other three full-day events will be on-farm workshops on “food safety and honey production,” “food safety and produce production,” “food safety and homesteading.”

We hosted an Amish PSA training in conjunction with Iowa State University on the MN and WI line. We used all paper materials and folders, and no PPT. We followed up with the growers, who are likely all covered. We will help them develop recordkeeping protocols for the farms to comply with the PSR.

End of Report

