

Welcome to Day 2 of the Food Safety Outreach Program National Project Directors Meeting!

Agenda and Program Booklet Available at:
<https://sc.ifas.ufl.edu/resources/>

Questions for a presenter? Feel free to use the Q/A box. Chat has been disabled.

Other questions? Contact Katelynn Stull
k.stull@ufl.edu



LRCC
Lead Regional
Coordination Center

USDA
United States
Department of
Agriculture

National Institute
of Food and
Agriculture

**FOOD SAFETY OUTREACH
PROGRAM NATIONAL
PROJECT DIRECTORS
MEETING**

AUGUST 18-19, 2020
1-5PM ET

NECAFS
The Northeast Center to
Advance Food Safety

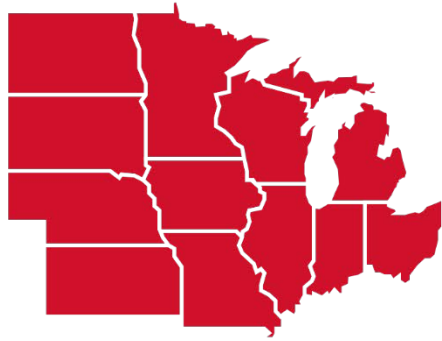
SC
Southern Center
for Food Safety Training, Outreach and Technical Assistance

North Central Region
Center for FSMA Training, Extension
and Technical Assistance

WRC
Western Regional Center to
Enhance Food Safety

IOWA STATE UNIVERSITY

NCR Center for FSMA Training, Extension and Technical Assistance



North Central Region

Center for FSMA Training, Extension
and Technical Assistance

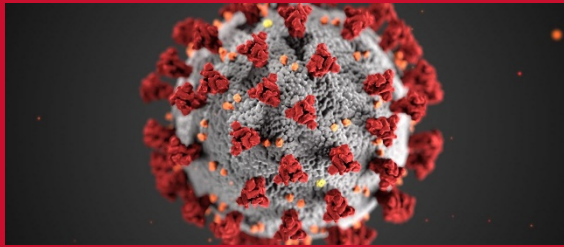
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2020 Annual Conference

Eau Claire



Virtual

Inspector Meetings

- Monthly gatherings to calibrate across state lines

Listening Sessions

- Monthly
- Topic specific
 - Wells, Wildlife, Covid-19, PSA Planning
- Open discussion

Impact of Produce Safety Alliance Grower Trainings in the North Central Region

Introduction

The impact of Produce Safety Alliance Grower Trainings in eight North Central Region states was evaluated in January 2020. Between October 2018 and June 2019, 926 participants attended a training in one of those states. They were invited to participate in the survey.

Methods

A survey was conducted electronically and through the mail.

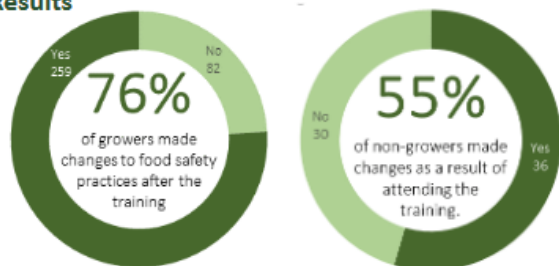
Respondents

364 participants (39%) responded to the survey. (Some results also include data from a separate survey sent in Iowa.)

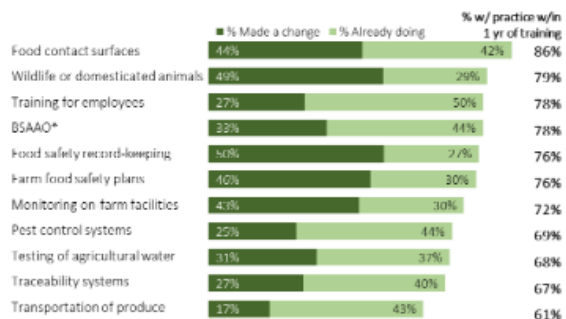
Growers most commonly are not required to comply with FSMA.



Results



Farmers made significant progress toward being compliant with FSMA since taking the training. See the changes farmers/growers made, as well as which practices they already had in place prior to the training.



*Biological Soil Amendments of Animal Origin

% of growers (of 341)



96 respondents spent an estimated **\$209,350** to improve food safety practices and infrastructure.

25% of growers (69 of 276) added or modified on-farm infrastructure or equipment to improve food safety practices.



Illustrations: garden box by Luísa Iborro (Noun Project), table by Azam Ishaq (Noun Project)

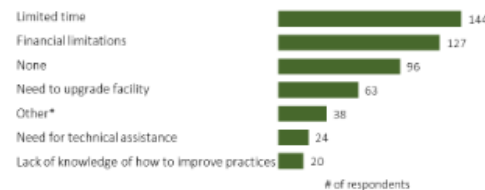
64% of growers who have participated in an OFRR made changes to on-farm food safety practices as a result.

7 growers created clean zones in packing areas to reduce contamination.
6 changed how they clean or sanitize food contact surfaces.

"I am very happy with the guidance and suggestions that the review team gave us. I feel very comfortable calling any one of them if we have a question as we prepare for training our employees and implement new procedures."

~ OFRR participant

Limited time and money were the most commonly cited limitations to improving on-farm food safety practices.



*Need to upgrade equipment (4 respondents), small scale (4), gray areas (3), record keeping (3), lack of financial benefit (3), water testing issues (3), negative attitude (2), farm is exempt (1), consumers need to change (1).

Recommendations

Continue to offer food safety education.

Provide updates via email or newsletters whenever FSMA requirements are updated.

Continue to offer OFRR's and similar on-farm activities.

Provide technical assistance to individual growers.

Share information about grants or loans available to farmers for food safety improvements.

Highlight information on low-cost ways to improve food safety practices.

104 respondents attended a training targeted towards Plain Growers. They were more likely to be fully covered than growers who attended other trainings.



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Updated: 5.26.20



Alternate Curriculum Review

- Procedures
- Develop review matrix
- Internal review
- Coordinate external reviews

Intake Form #1						
Submitters fill in only the blank boxes under the blue headings. Columns in green are for reviewers						
Terminal Learning Objective	Enabling Learning Objective	Standardized Curriculum Learning Objective AND Produce Safety Rule or Standard citation	Proposed Alternate Curricula Learning Objective AND proposed Produce Safety Rule or Standard citation	Proposed Learning Objective Assessment (optional)	Proposed Alternate Curriculum Learning Activity Description	Equivalent Learning Objective (Y or N with comments if necessary)
		From the FDA's Draft Guidance	Example: Monitoring of wild and domesticated animals intrusion into the growing area of covered produce. §112.83(a)	NA	Lecture on the different ways animals can contaminate produce	
Module 1 Introduction to Produce Safety						
1		Discuss produce safety				
	1.1	Explain how FSMA supports food safety				
	1.2	Explain how the Produce Safety Rule supports produce safety				
	1.4	Discuss the impact of produce-related outbreaks on public health				
2		Explain how produce safety may impact your operation				
	2.1	List compliance dates for Produce Safety Rule				
	2.2	Explain why someone familiar with the farm should be involved in assessing "known or reasonably foreseeable hazards" related to produce and implementing the requirements of the Rule				
3		Identify the types of human pathogens that can contaminate produce				
	3.2	Describe the characteristics of each type of human pathogen				
	3.3	Explain how each type of human pathogen can be				

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Development of a community Culinary Incubator to improve food safety and value-added opportunities for small farmers, producers, processors and potential entrepreneurs.

Cindy Borgwordt, borgwordtc@lincolnu.edu NIFA,
Food Safety Outreach Program



Development of a community Culinary Incubator to improve food safety and value-added opportunities for small farmers, producers, processors and potential entrepreneurs.

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NIFA, NIFA, Food Safety Outreach Program



Low resource small farmers, producers, processors and entrepreneurs cannot afford the initial cost for:

- A commercial kitchen,
- FSMA, food safety, product development and business training,
- Additionally, a need and opportunities exist:
 - Many are unaware of FSMA and food safety practices,
 - Communities want safe product and product made with local food,
 - Low resource farmers and producers can increase profit by value-added product development.
 - Shared kitchens with business assistance result in a higher rate of client success.
 - The long term goal is to increase food safety compliance.

{Write your project problem statement / issue definition}



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NIFA, NIFA, Food Safety Outreach Program

Approach / Methods:

30 persons are selected from an application process, a needs assessment helps determine any equipment or other needs.

Members work with the SBDC to develop a business plan, obtain licenses and receive consultations.

FSMA, with Dr. Shaw, and food safety trainings are offered at reduced or no cost.

A community committee help ensure meeting community needs and opportunities.

Student can participate in trainings.

Develop culinary Incubator curricula.

Once successful, or after two years, clients graduate and go on their own.

NCR FSMA training center staff assists.



Development of a community Culinary Incubator to improve food safety and value-added opportunities for small farmers, producers, processors and potential entrepreneurs.

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NIFA, NIFA, Food Safety Outreach Program

Results / Outcomes:

Funding was received in March 2020 and then delays due to COVID.

Application procedure and policies complete and being launched this week.

Community committee includes MDA, MO DHSS, food truck, restaurant, inspector, SBDA, farmers market, Visitor and Convention Center, MU Extension and a few more. There is great interest in the project.



Development of a community Culinary Incubator to improve food safety and value-added opportunities for small farmers, producers, processors and potential entrepreneurs.

Cindy Borgwordt, borgwordtc@lincolnu.edu

NIFA, NIFA, Food Safety Outreach Program



- Where do we go from here?
Contact, ask, involve, reach out

Partnerships - please contact me for opportunities.

Collaborations – are you involved in a shared kitchen or know of one?

Presentations/workshops – we want to help!

Trainings – sharing trainings expends effort

Other efforts – I want to hear from you

Expanding FSMA Produce Safety Rule Outreach to Underserved Diversified Fruit and Vegetable Farms in Minnesota

Annalisa Hultberg, University of Minnesota Extension, hultb006@umn.edu



Expanding FSMA Produce Safety Rule Outreach to Underserved Diversified Fruit and Vegetable Farms in Minnesota

Annalisa Hultberg, University of Minnesota Extension, hultb006@umn.edu



Issue Definition

- Significant number of Latino, Hmong, and African, Amish and Plain community growers. Many small, diversified, organic, and few GAP audited.
- Many farms with qualified exemption to the PSR, that are completely excluded. *(Roughly 100 covered, 3000 total farms)*
- Food hubs, non-profit training organizations and incubator farm organizations that provide conduit to growers



- We have hosted 27 grower trainings, training about 500 farms
- Robust FSMA PSR training program with 9 farmer trainers that can act as peer educators
- Goal is to develop additional materials to supplement Grower Trainings

Expanding FSMA Produce Safety Rule Outreach to Underserved Diversified Fruit and Vegetable Farms in Minnesota

Annalisa Hultberg, University of Minnesota Extension, hultb006@umn.edu



Needs assessment and advisory group of food hubs, farmers and agricultural educators:

- Farmers and groups wanted to know: Am I covered by the rule? What are the basics of the rule, in short easy-to-digest educational materials to have as needed.
- What is needed if I am qualified exempt? What is difference between GAP audit/PSR inspection?
- Can I get a tailored training for our group of farmers (language, approach)
- We need training materials to “plug and play”

Expanding FSMA Produce Safety Rule Outreach to Underserved Diversified Fruit and Vegetable Farms in Minnesota

Annalisa Hultberg, University of Minnesota Extension, hultb006@umn.edu



Approach / Methods:

- Short videos and factsheets on GAPs and basic components of the PSR (translated). Farmers review all scripts.
- Tailored outreach to incubator farms and those training groups of farmers like Extension educators and ag organizations
- Utilize farmer knowledge and engage farmers as trainers



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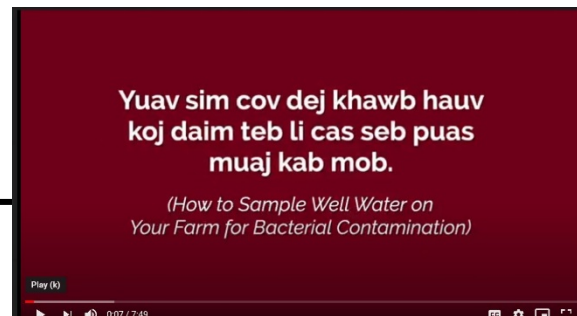
Results/ Outcomes:

1. Factsheets

- Updated and created 8 factsheets – GAP concepts and FSMA PSR
- PSR status overview, water testing, qualified exempt.

2. Videos

- 4 videos: PSR status overview, water testing, harvest safety, building handwashing station.
- Translated into Spanish and Hmong.




Expanding FSMA Produce Safety Rule Outreach to Underserved Diversified Fruit and Vegetable Farms in Minnesota

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THE PRODUCE SAFETY RULE HOW IT APPLIES TO YOUR FARM

ON-FARM FOOD SAFETY PROGRAM



**UNIVERSITY OF MINNESOTA
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Annalisa Hultberg and Anne Sawyer
Extension Educators
Food Safety, Horticultural Systems
Emily Tope
Department of Horticultural Science

WHAT IS THE PRODUCE SAFETY RULE?

The Produce Safety Rule is one of the seven rules under the Food Safety Modernization Act (FSMA), and is specific to businesses that grow, harvest, pack, and hold covered produce including fruits, vegetables, nuts, herbs, and mushrooms. This rule sets the first-ever federal regulatory standards for fresh produce in an effort to prevent microbial contamination and reduce foodborne illnesses. The Produce Safety Rule has requirements in these areas:

- Worker training, health, and hygiene
- Agricultural water
- Biological soil amendments of animal origin
- Domesticated and wild animals
- Equipment, tools, and buildings

THREE FARM CATEGORIES OF THE PRODUCE SAFETY RULE

While food safety is important for all farms, the FSMA Produce Safety Rule regulations only apply to some farms. Your farm will fall into one of three categories under the Produce Safety Rule:

<p>NOT COVERED</p> <p>Farm is not subject to any regulations of the Produce Safety Rule.</p> <p>Keep sales records to demonstrate status.</p>	<p>QUALIFIED EXEMPT</p> <p>Farm is not subject to most of the regulations of the Produce Safety Rule.</p> <p>Must follow modified labeling requirements.</p> <p>Keep sales records to demonstrate status.</p>	<p>FULLY COVERED</p> <p>Farm is subject to all regulations of the Produce Safety Rule.</p> <p>Farm supervisor or responsible party must attend Produce Safety Rule grower training course recognized as adequate by FDA, or equivalent.</p>
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THE PRODUCE SAFETY RULE: HOW IT APPLIES TO YOUR FARM | DECEMBER 2019 PAGE 1 OF 4

LABELING AND SIGNAGE RULES FOR QUALIFIED EXEMPT FARMS

FOOD SAFETY MODERNIZATION ACT | PRODUCE SAFETY RULE



Annalisa Hultberg
Extension Educator
Food Safety, Horticultural Systems

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WHAT DOES IT MEAN TO BE QUALIFIED EXEMPT?

Under the Produce Safety Rule, your farm might be Qualified Exempt. This means that a farm qualifies for an exemption from the major regulations in the Rule. The exemptions are based on your annual sales and the types of buyers you sell to.

If your farm is eligible for a Qualified Exemption:

- You will not be subject to routine FSMA inspections.
- You need to follow rules regarding labeling and signage.
- You need to keep sales records to prove you qualify for the exemption.

To learn more about your status under the FSMA PSR, visit www.z.umn.edu/fsma-psr or refer to the other factsheet in this series, *How does the Produce Safety Rule apply to my farm?*

LABELING AND SIGNAGE REQUIREMENTS

Qualified Exempt farms must follow labeling and signage rules when selling produce that is considered 'covered' by the Produce Safety Rule. This provides contact information for the farm in case there is an issue with the produce.

WHAT IS 'COVERED PRODUCE'?

The labeling and signage requirements described here only apply to produce that is considered 'covered' under the Produce Safety Rule. 'Covered' produce includes all fruits, vegetables, herbs, sprouts, and mushrooms that are not on the FDA's list of items considered rarely consumed raw. You can find a full definition and list of rarely consumed raw produce items at www.z.umn.edu/psr-rarely-consumed-raw.

LABELING REQUIREMENTS

When you sell 'covered produce' that requires a label, the label must prominently display the name and complete business of the farm where the produce was grown.




These three images show the correct labeling for packaged produce items sold by Qualified Exempt farms.

THE PRODUCE SAFETY RULE: HOW IT APPLIES TO YOUR FARM | DECEMBER 2019 PAGE 2 OF 4

HOW TO BUILD A LOW-COST HANDWASHING STATION

ON-FARM FOOD SAFETY PROGRAM



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Anne Sawyer and Annalisa Hultberg
Extension Educators
Food Safety, Horticultural Systems

THE IMPORTANCE OF HANDWASHING

Handwashing is one of the most important steps you can take to reduce the risk of contaminating your fruits and vegetables with foodborne illness-causing pathogens. Many of the diseases that can be transmitted through food may be harbored in the intestinal tracts of people as well as wild and domesticated animals. If a person's hands become contaminated with fecal material, pathogens can be transmitted to fresh produce. Always wash hands thoroughly after using the toilet, before handling produce, or whenever they may be a source of contamination.


Hand sanitizer should only be used in addition to proper handwashing, not in place of it. Hand sanitizer is not effective when hands are dirty, and is not intended to replace proper handwashing.

HANDWASHING AREAS ON THE FARM

Handwashing stations should be near all portable toilets and in your parking area. Have a handwashing station near work areas so it is convenient for everyone handling produce. If your farm is large, you might consider mounting a handwashing station on a trailer so it can be moved around your farm with workers.

How many handwashing stations do you need? A benchmark from the Occupational Safety and Health Administration (OSHA) is one station per 20 employees, but you should have as many as needed to service everyone who works on your farm. Even if you only have two employees, you should have handwashing stations where they are needed so it is easy for people to wash their hands regularly.

Handwashing stations must always use clean water that is the microbial equivalent of potable (drinking) water. This stand might also be useful at a farmers' market, roadside stand, U-pick or any other location.



HOW TO BUILD A LOW-COST HANDWASHING STATION | DECEMBER 2019 PAGE 1 OF 4

Expanding FSMA Produce Safety Rule Outreach to Underserved Diversified Fruit and Vegetable Farms in Minnesota

Annalisa Hultberg, University of Minnesota Extension, hultb006@umn.edu

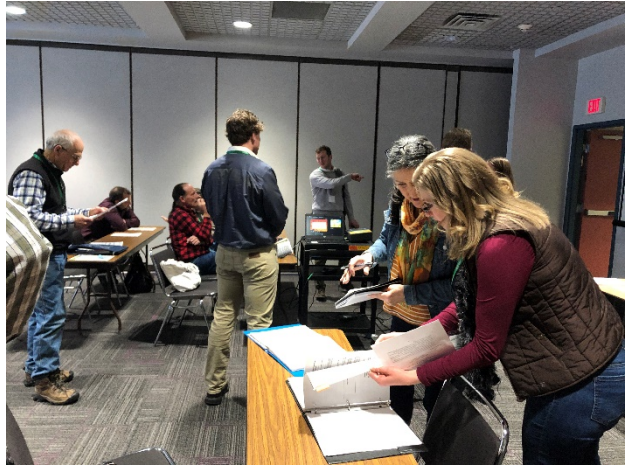
Results/ Outcomes:

3. Trainings:

- Ongoing series of workshops for farmers on single topic related to PSR – employee and visitor training, water testing, cleaning and sanitizing
 - Co-led by farmers and use hands-on activities and approaches
 - A short play, role playing, teach-back
- 1 Hmong-language grower training with Hmong-speaking trainers
- Amish training planned, rescheduled. Amish LT secured.
- 5 3-hour GAPs trainings, translated as needed.
- Engaging Farmers as Trainers for Grower Trainings– 9 farmer trainers on team. As least 1 farmer trainer at every FSMA training. Paid as consultants to help other farmers with questions and develop FSPs. Review scripts.

4. Ongoing:

- Translate all factsheets into Hmong and Spanish
- Finish Employee Training guide – intended audience is non-native English speakers



Food Safety Education and Outreach Programming for Plain Growers (Amish and Mennonite)

Sanja Ilic, PhD

Associate Professor and Food Safety State Specialist

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Human Nutrition, Department of Human Science , College of
Education and Human Ecology, OSU

USDA NIFA, FSOP



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Food Safety Education and Outreach Programming for Plain Growers (Amish and Mennonite)

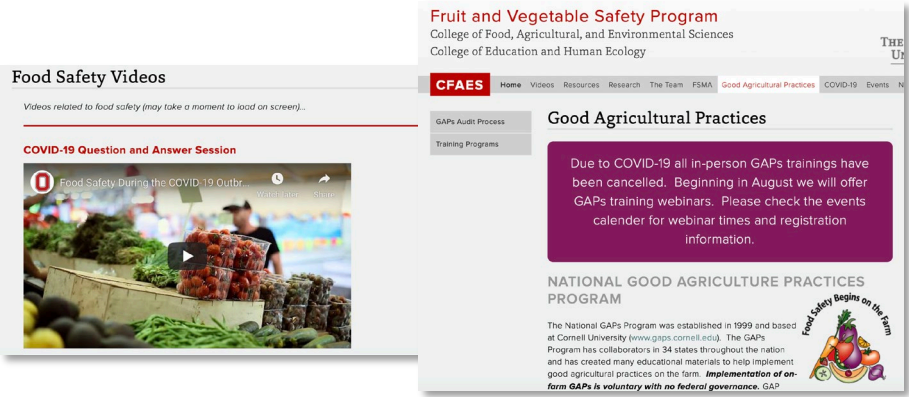
Sanja Ilic, OSU ilic.2@osu.edu USDA NIFA FSOP

Problem Statement / Issue Definition:

- Food safety materials and trainings that address limited resource producers, especially population that don't use technology are lacking.
- The **Ohio State University Fruit and Vegetable Safety Team (OSU FVST)** has provided educational outreach services to over 6,000 Ohio's produce growers for on-farm produce safety.
- The GAPs training specific to Amish and Mennonite culture and practices was needed



The screenshot shows the website for the Fruit and Vegetable Safety Program. The header includes the program name and affiliation with The Ohio State University College of Education and Human Ecology. A navigation menu lists various topics like Home, Videos, Resources, Research, The Team, FSMA, Good Agricultural Practices, COVID-19, Events, and News. Two main content blocks are visible: 'WORKING WITH FARMERS' MARKETS AND SMALL FARMS TO ENSURE FOOD SAFETY' with a 'READ MORE' button, and 'COVID-19 FOOD SAFETY FOR SPECIALTY CROP FARM OPERATORS' with sub-sections for 'WHAT ARE THE HEALTH RISKS?' and 'KEEP PHYSICAL DISTANCE'. A search bar and 'Upcoming Events' section are also present.



This screenshot shows the 'Food Safety Videos' section of the website. It features a video player for a 'COVID-19 Question and Answer Session' with a thumbnail showing a person in a field. To the right, there is a 'Good Agricultural Practices' section with a purple notification box stating that in-person GAPs trainings are cancelled and replaced by webinars. Below this is the 'NATIONAL GOOD AGRICULTURE PRACTICES PROGRAM' section, which includes a brief history of the program and a logo that says 'Food Safety Begins on the Farm'.

Food Safety Education and Outreach Programming for Plain Growers (Amish and Mennonite)

Sanja Ilic, OSU ilic.2@osu.edu USDA NIFA FSOP



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Good Agricultural Practices Guide For Plain Growers Version 1 (2019)

Written By:

Melanie L. Lewis Ivey, PhD, Department of Plant Pathology, College of Food, Agricultural, and Environmental Sciences
Ashley Kulhanek, OSU Extension, College of Food, Agricultural, and Environmental Sciences
Sanja Ilic, PhD, Department of Human Sciences Human Nutrition, College of Education and Human Ecology.

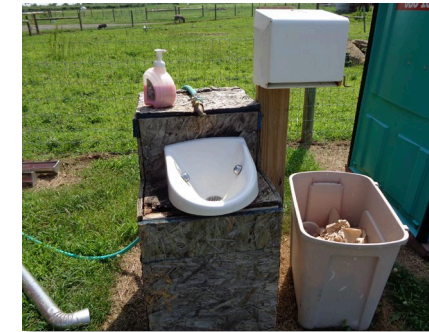
Reviewed By:

Tiffany Wild, PhD, Department of Education, College of Education and Human Ecology.



Approach / Methods:

- We modified **program availability and delivery methods** to better meet the needs of Plain growers Ohio and surrounding states.
- Worked with Plain growers to capture the practices and collect the **authentic management examples and solutions** from plain farms.



- We adapted the **language** and integrated **cultural references** to reflect the Plain (Amish and Mennonite) community and used **authentic images** from plain farms only.

Food Safety Education and Outreach Programming for Plain Growers (Amish and Mennonite)

Sanja Ilic, OSU ilic.2@osu.edu USDA NIFA FSOP



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Results / Outcomes:

- Pre-tested Plain grower GAPs trainings with distinct Plain settlements (orders) in Ohio
- Trained extension educators and disseminated materials to OSU extension network and other states with Plain grower populations through
- *Plain Grower GAPs Guide* was awarded 1st place in the OHIO CHAPTER, National Association of County Agriculture Agents (NACAA) Communication Awards 2020, Publication Category, and was the Regional Finalist for the North Central Region.

RISK ASSESSMENTS

How do I conduct risk assessment?

The best way to start a risk assessment is to **draw a map of your farm**. Look over your whole farm, and its surroundings. Include all details of your farm such as:

- production areas
- areas that harbor wildlife
- livestock barns and grazing areas
- location of houses and packing sheds
- potential flooding zones
- septic fields
- well heads
- water sources and direction of water flow
- topography of the land
- roads
- potential flooding zones

Can you identify the potential food safety hazards on this farm?

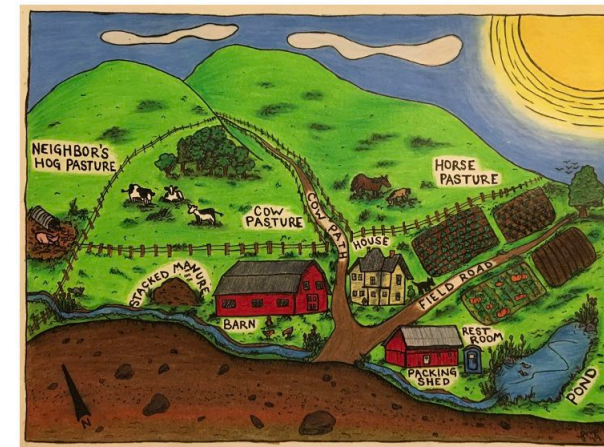


Figure 4. Example of the farm map with its surroundings

Pre-harvest Risk Assessment

- Land use history and adjacent land use
- Water source and system assessment
- Animal control assessment
- Soil amendment assessment

Post-harvest Risk Assessment

- Produce washing assessment
- Packing assessment
- Allergen assessment

10

Community Based Technical Assistance and Training Reaching New
Audiences to Help Small Processors Reach FSMA Compliance

Majed El-Dweik, dweikm@lincolnu.edu

NIFA, Food Safety Outreach Program



Significance of Problem and Challenge:

- Food Safety Modernization Act (FSMA)
- Small farmers, Low resource, Producers, and Food processors
- FSMA none compliance can results in ending and closing many food facilities
- Awareness of FSMA and food safety practices
- Consumers demand for safe food
- Maintaining the growth in food industries

Approach / Methods:

- Reaching stakeholders through Outreach and Academic programs
- Innovative Small Farmer's Outreach Program (ISFOP) in five regions
- Student scholarship for training
- Workshops by lead educators in the field
- Staff training on Hazard Analysis Critical Control Points (HACCP)
- 2 Cohorts
- Collaboration with facilities in soil and water quality to offer testing
- Develop outlines for database to assist with education about HACCP and FSMA
- Water and soil testing

Results / Outcomes:

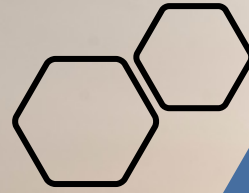
- Integrated this program to ISFOP
- Selected first cohort of students and farmers
- Held workshops by Dr. Shaw
- Added a website with links to support materials related to HACCP and FSMA
- Staff receive HACCP training to offer train the trainer
- Work with Missouri Department of Agriculture
- Member of Lieutenant Governor task force in the food and beverage initiatives

Next Plans:

- Second cohort selection delay
- Expand this program to the other 4 regions through ISFOP
- Transformation to virtual program
- Industrial support to support program
- Apply for grant to sustain and expand program

Western Regional Center Updates

Jovana Kovacevic, PhD



FSOP National
Project Directors
Meeting
August 19, 2020



United States Department of Agriculture
National Institute of Food and Agriculture

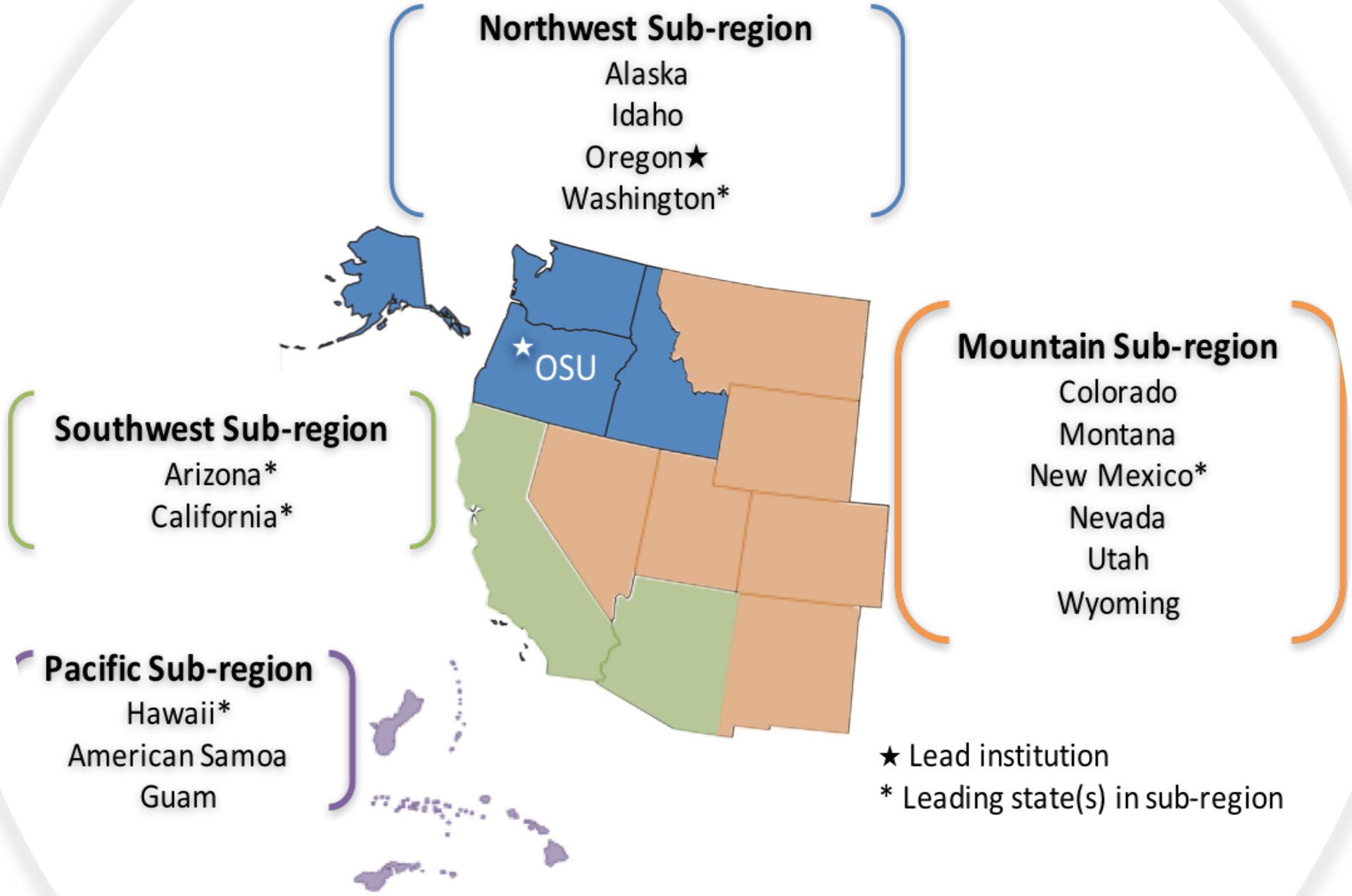


USDA NIFA FSOP
Grant No. 2018-70020-28879

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Western Regional Center to Enhance Food Safety

The purpose and long-term goal of the Western Regional Center to Enhance Food Safety (WRCEFS) is to build upon the collaborative infrastructure established in the U.S. Western Region to support continued food safety education, training, extension, outreach, and technical assistance in compliance with FSMA.



OSU Team



Jovana Kovacevic



Dave Stone



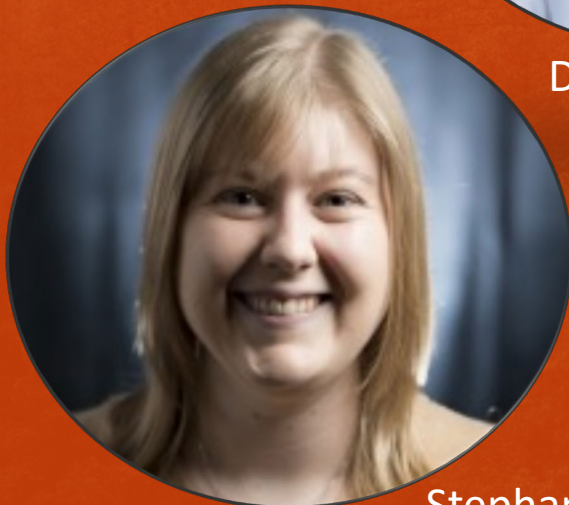
**Oregon State
University**



Christina DeWitt



Joy Waite-Cusic



Stephanie Brown



Bob McGorin

**Partner
Institutions
& Sub-
awards**





Channah Rock
U. Arizona



Faith Critzer
WSU



Alda Pires
UC Davis



Erin DiCaprio
UC Davis



Tom Dean
NMSU



Jensen Uyeda
U. Hawaii

WRCEFS Sub-Regions

Objectives

01

Support

Support the development of and offer continuing educational opportunities to PSA Trainers/Lead Trainers and FSPCA Lead Instructors within the Western U.S.

02

Coordinate

Coordinate a regional communication strategy to discuss ongoing efforts and best practices for FSMA-related training, education, and technical assistance within the Western U.S.

03

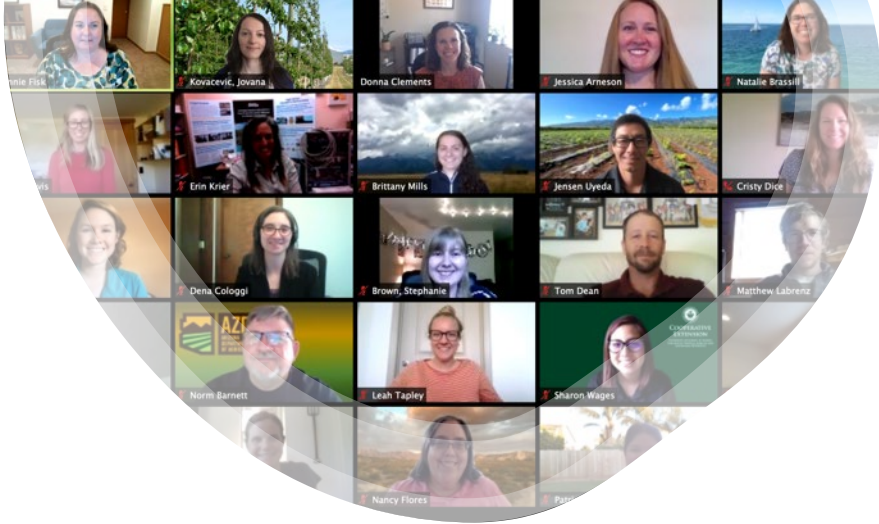
Establish

Establish protocols for peer review of original and modified add-on and supplemental training materials related to FSMA produce safety and preventive controls rules.
Identify FSMA subject matter experts in the Western U.S.

04

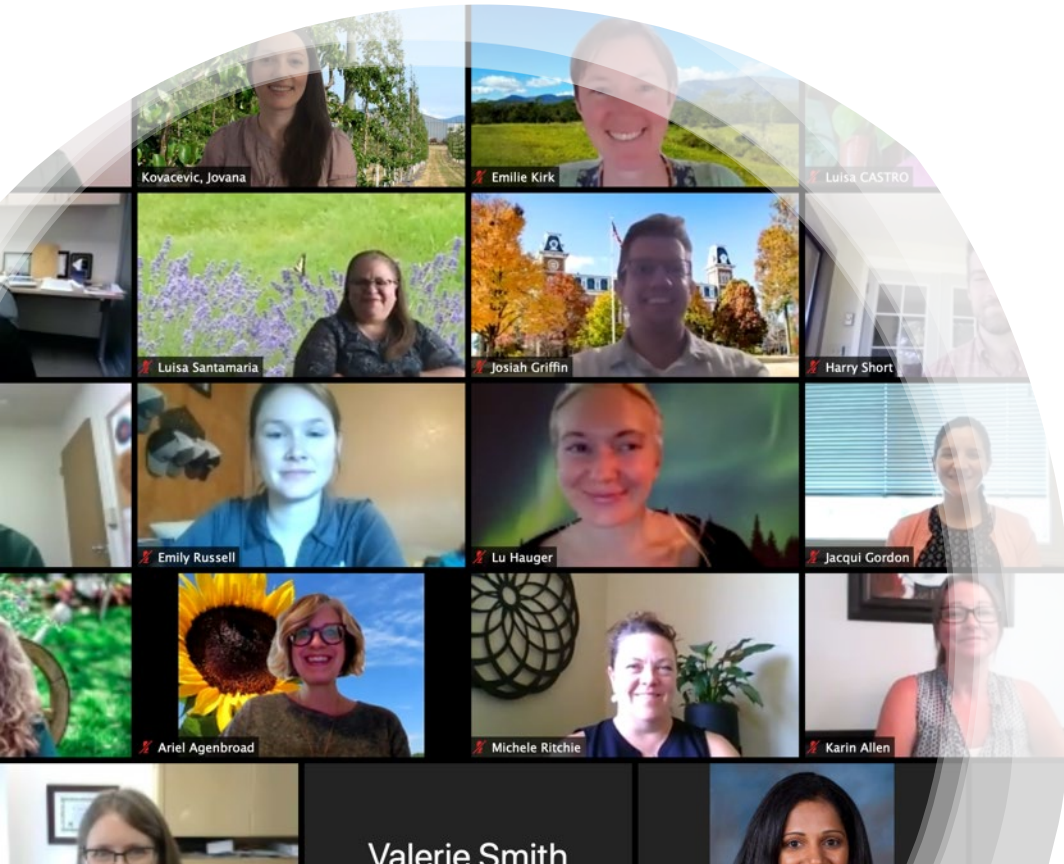
Evaluate

Evaluate the impact of WRCEFS education, training and technical assistance programs through ongoing program assessment.



Obj.1 – Professional Development

- Produce Safety Professional Development workshop
 - 2 workshops held virtually in May and July 2020
 - Developed in collaboration with PSA and NMSU
- Train-the-Trainer Bridging the GAPS: Approaches for Treating Preharvest Agricultural Water On-Farm
 - Workshop planned for October 2020
 - Developed by Faith Critzer (WSU) and collaborators from Virginia Tech, U. Florida, NC State, U. Arizona, U. Georgia, U. Tennessee





Obj.2 – 4th Annual Meeting

- Originally planned to be in-person in New Mexico, but switched to virtual meeting
- Held on May 12, 2020
- 92 attendees; 38 presenters
- Included COVID-19 session and guest speakers from PSA, NCSU, UC Davis, OSU

Obj.3 – Peer-review process for add-on* materials

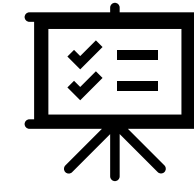
Peer review request



Quality check



Peer review



May 2020

- Forms incorporated into the Clearinghouse

July 2020

- Pilot review of one add-on

Aug-Sep 2020

- Process revisions & second pilot

**Add-ons are material(s) in addition to the standardized curricula that are developed and delivered pre-course, during a course, or post-course as a standalone.*

Obj.4 – Trainings and Evaluations



PSA trainings (n=68)

- 2018: 10
- 2019: 32
- 2020: 26 (13 remote)
- Data from 6 states:
Arizona, California, Hawaii,
New Mexico, Oregon,
Washington
- Follow-up surveys: 67 so far
with over 1,000 sent out (AZ,
OR)



FSPCA-PCHF trainings (n=6)

- 2018: 1
- 2019: 3
- 2020: 2 (1 remote)
- Data from 3 states:
California, Oregon, New
Mexico
- Follow-up surveys: 14 so far
with over 90 sent (OR)



Other food safety trainings (n=23)

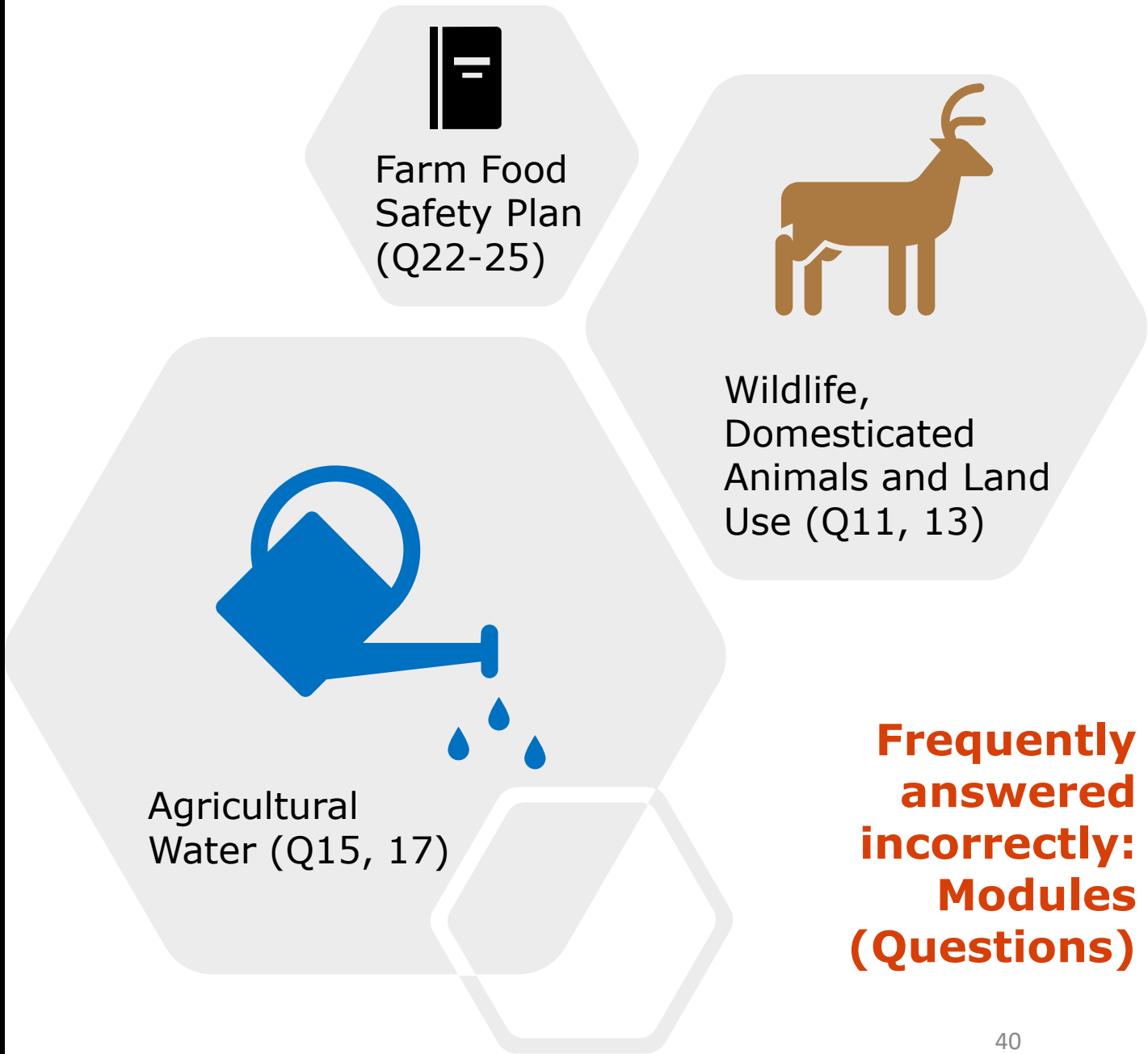
- 2018: 1
- 2019: 16
- 2020: 6
- Data from 2 states:
California, Oregon

Oregon PSA data

Table 1. Pre- and post-test scores for PSA trainings in Oregon from 2018-2020.

Training	Total No. Participants	Ave. Pre-test Score*	Ave. Post-test Score	Score Change (Δx)
In person (n=31)	867	16.71	20.91	+4.20
Remote delivery (n=3)	52	16.13	19.85	+3.72

*weighted scores based on number of participants at each training.



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wrcefs@oregonstate.edu

We'll be in touch

- Updates through emails

Latino Farmers Trained in Organic Farm Food Safety (LIFT-OFFS)

Nathan Harkleroad, Agriculture and Land-Based Training Association

e-mail: nathan@albafarmers.org

USDA-NIFA, Food Safety Outreach Program

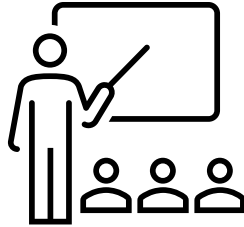


LIFT-OFFS

Nathan Harkleroad, ALBA, nathan@albafarmers.org
USDA-NIFA, FSOP



Project addresses SDA farmers' needs for:



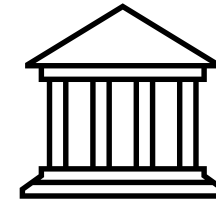
Training

Basic GAPs
Record-keeping
PSAs



Service Providers

One-on-one
Support
Food Safety Plans
Audit Prep



Compliance

FSMA
Buyer Expectations

LIFT-OFFS

Nathan Harkleroad, ALBA, nathan@albafarmers.org
USDA-NIFA, FSOP



Methods:



Bilingual

Culturally appropriate

Farmer friendly

Hands-on



Gradual

Step-by-step

Consistent support



Repetition

Workshops series repeats

Reg. farmer check-ins



LIFT-OFFS

Nathan Harkleroad, ALBA, nathan@albafarmers.org
USDA-NIFA, FSOP



Projected Results by Objective:

i. Strengthen capacity of 120 beginning, Latino-owned farms on the Central Coast

- 80% of the 110 farms trained and/or assisted will declare increased food safety knowledge;
- 70% of 80 farms assessed 4-6 months after being trained will be using knowledge gained through trainings and/or technical assistance;
- 75% of farms trained will pass food safety audits;
- 45 start-up farms pass internal GAP audit; 45 off-site farms pass 3rd party audit;
- 50+ regional farms strengthen their knowledge and capacity to manage FSMA requirements.

ii. Another 180 farmworkers, students and professionals gain knowledge and skills

- 90 field workers strengthen their knowledge and capacity to implement GAPs;
- 50 food safety students gain first-hand exposure to on-farm food safety practices;
- Regional farmers will gain access to newly developed reference tools, record-keeping; templates and visual aids tailored for Spanish-speakers to enhance understanding.

iii. Increase internal/external capacity

- ALBA and partners build capacity and expand services to farmers on the Central Coast.



Supporting FSMA compliance for California's regional food hubs through training and technical assistance

Erin DiCaprio, Ph.D.

Department of Food Science and Technology, UC Davis, UC ANR

eldicaprio@ucdavis.edu

USDA-NIFA, Food Safety Outreach Program

Other project team members:

Gail Feenstra (PD)

Alda Pires

Gwenael Engelskirchen



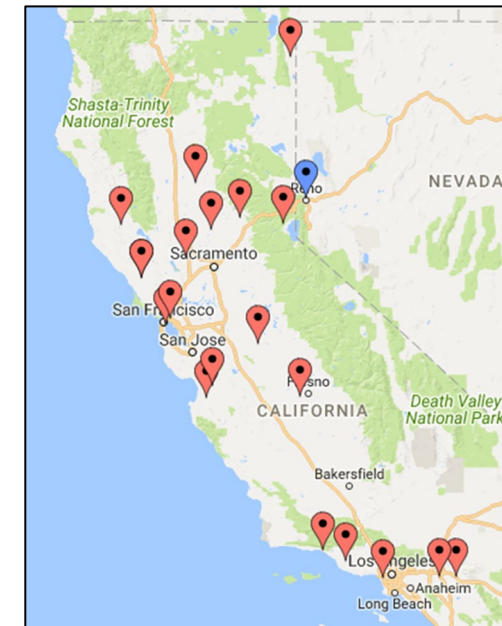
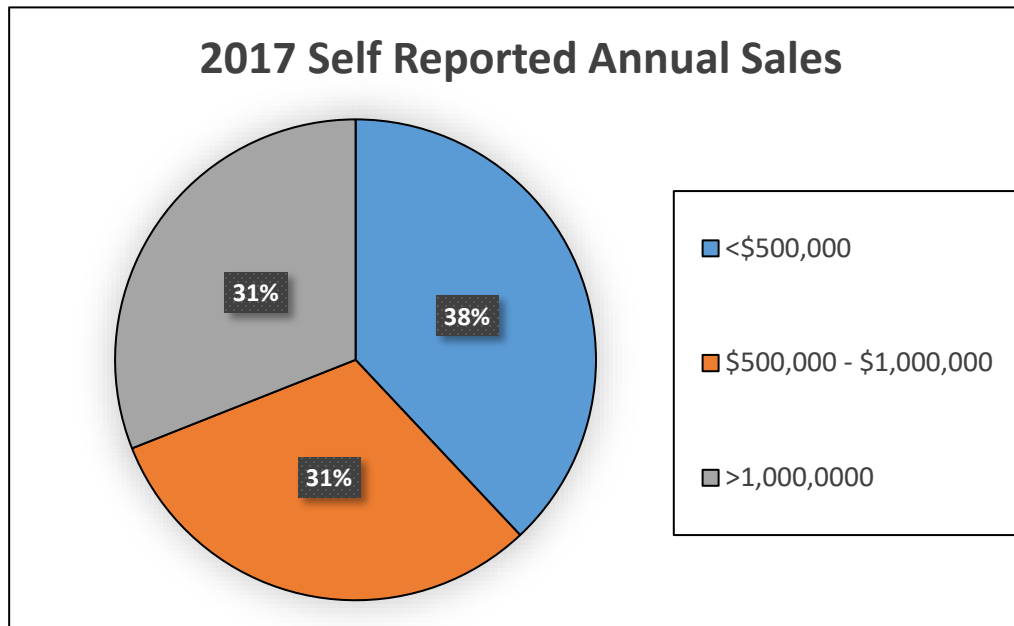
Supporting FSMA compliance for CA's regional food hubs through training and technical assistance

Erin DiCaprio, UC Davis, UC ANR, eldicaprio@udavis.edu
USDA-NIFA, FSOP



Many food hubs do not have resources to implement the PCHF Rule:

- Food hub facilities, equipment, employees, types of commodities sold, and ownership vary
- “Food safety compliance for my hub” was the #1 regulatory challenge
- Areas of need for technical support, “food safety compliance” within the top 4 responses



Supporting FSMA compliance for CA's regional food hubs through training and technical assistance

Erin DiCaprio, UC Davis, UC ANR, eldicaprio@udavis.edu
USDA-NIFA, FSOP



Approach / Methods:

Webinars (Nov 2018 – Jan 2019)

- Overview of PC Rule
- Qualified exemptions
- PC Rule fully covered facilities

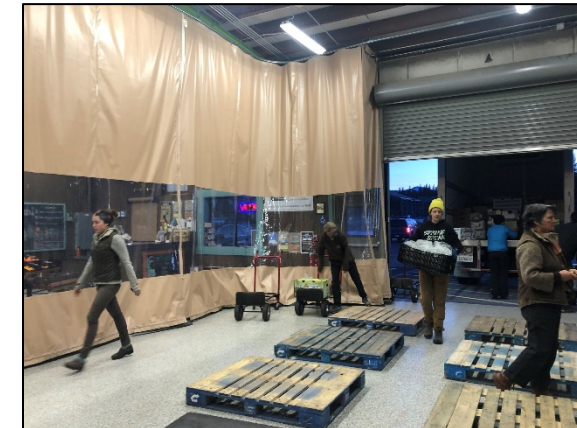
PCQI training (Jan 2019)

Site visits (Fall 2019 – 2020)

Review of food safety plans

Fact sheet on implementation

Model food safety plan



Supporting FSMA compliance for CA's regional food hubs through training and technical assistance

Erin DiCaprio, UC Davis, UC ANR, eldicaprio@udavis.edu
 USDA-NIFA, FSOP



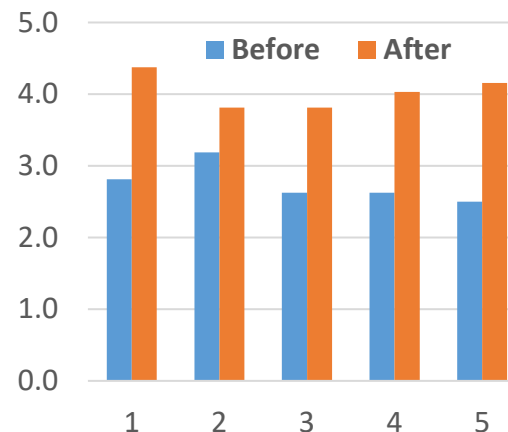
Results / Outcomes:

- 3 webinars developed and delivered
- 12 food hub staff receive PCQI certificates
- 6 food hub site visits and food safety plan review
- Model food safety plan, SOPs, implementation guide

Rate your knowledge of the FSMA PC for Human Food Rule	PRIOR to attending course	AFTER attending course
Very knowledgeable	0%	50%
Somewhat knowledgeable	67%	50%
No previous knowledge	33%	0%

I understand and have knowledge about the following
 (1 = strongly disagree, 5 = strongly agree)

1. How to develop a flow diagram
2. How to evaluate threats from microbial sources
3. How to conduct a hazard analysis
4. How to implement preventive controls
5. What a produce distribution enterprise or food hub needs to do to comply with FSMA



Supporting underserved California leafy-green producers' FSMA compliance, through interdisciplinary food safety, communication and marketing training

Jeta Rudi Polloshka, California Polytechnic State University
(with Amanda Lathrop, Karen Cannon, and Erin Krier)

jrudi@calpoly.edu

USDA NIFA, Food Safety Outreach Program
2019-2021



Supporting underserved California leafy-green producers' FSMA compliance, through interdisciplinary food safety, communication and marketing training

Jeta Rudi Polloshka, Cal Poly, jrudi@calpoly.edu
USDA NIFA, FSOP – Community Outreach Project



CAL POLY
College of Agriculture, Food
& Environmental Sciences

Problem Statement / Issue Definition:

1. Leafy greens – important crops for the state of California – are often recalled due to pathogen contamination
 - ❖ This may lead to a decrease in consumer confidence, and a negative impact for the industry.
 - ❖ As FSMA regulation becomes enforceable for very small operations, farmers in the Central Region of California are in a need for training and expertise.
2. Growers in small and very small operations may lack understanding of food safety regulation
 - ❖ Small-scale farmers often sell their produce directly to consumers, at farmers' markets.
 - ❖ Economic literature suggests that farmers' markets are linked to higher incidences of foodborne pathogen contamination outbreaks.
 - ❖ Our goal is to train farmers in food safety best practices, and hence help reduce incidents of food safety outbreaks.
 - ❖ We focus on disadvantaged small-scale farmers, who face language and other barriers.



Supporting underserved California leafy-green producers' FSMA compliance, through interdisciplinary food safety, communication and marketing training

Jeta Rudi Polloshka, Cal Poly, jrudi@calpoly.edu
USDA NIFA, FSOP – Community Outreach Project



CAL POLY
College of Agriculture, Food
& Environmental Sciences

Approach / Methods:

- ❖ We focus on farmers of leafy greens in the Santa Maria region of California. Our training program is interdisciplinary, including food science, plant science, agribusiness, and agricultural communication.
- ❖ Farmers and students are offered Produce Safety Alliance (PSA) grower training.
- ❖ Visits to farmers' operations to offer them a training program including consultation on the Produce Safety Rule, food safety cost tracking and agribusiness training, and food safety crisis communication training
- ❖ All trainings include Cal Poly and Allan Hancock College students, who will be assisting the project directors in all phases of the project. By including students in our project, our goal is to increase California's future capacities in food safety.



Supporting underserved California leafy-green producers' FSMA compliance, through interdisciplinary food safety, communication and marketing training

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USDA NIFA, FSOP – Community Outreach Project



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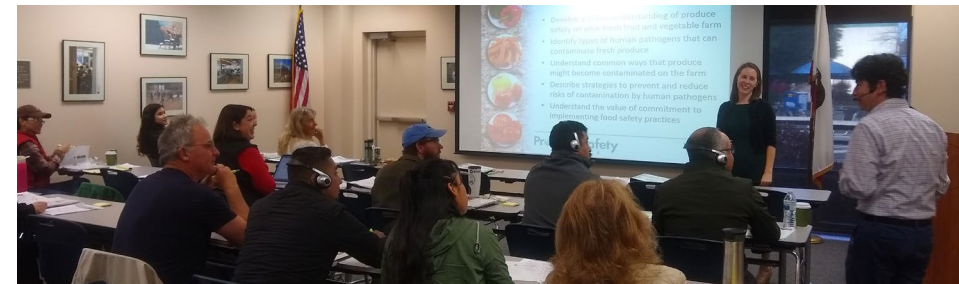
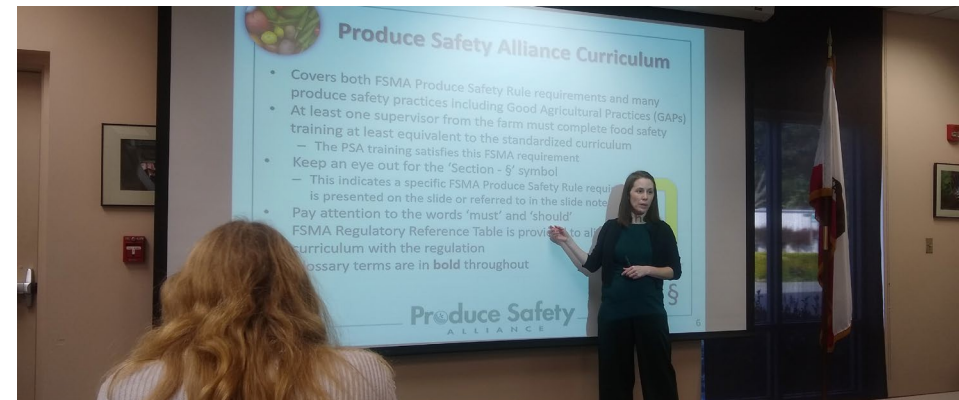
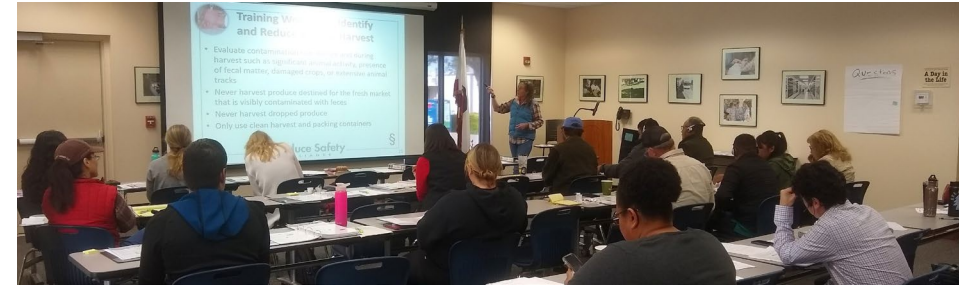
Results / Outcomes:

1. PSA Training

- ❖ First PSA Training Completed
- ❖ 17 Participants
- ❖ Local farmers & students
- ❖ Spanish translation
- ❖ January 2020

2. Planned farm visits

- ❖ Postponed due to COVID-19
- ❖ 7-8 visits planned until summer 2021
- ❖ Personalized assistance with regulation compliance & beyond



Extending Food Safety, Sanitation and Quality training to primary processor employees that have frontline interactions with seafood harvesters

Christina A. Mireles DeWitt

Oregon State University, christina.dewitt@oregonstate.edu
USDA-NIFA, Food Safety Outreach Program



Oregon State University
Coastal Oregon Marine
Experiment Station





Problem Statement / Issue Definition:

Seafood processing plants experience quality issues with fish at time of arrival to plants.

Quality issues can translate to food safety issues.



BSPS 2019

Need: Improve communication of food safety, sanitation and quality principles to seafood harvesters.

Goal: Increase the knowledge base of food safety, sanitation and quality principles of individuals at seafood processing plants who have focal interactions with harvesters.





Approach / Methods:

Expand an existing food safety education program, the Better Seafood Processing School, to a specialized audience (fleet managers, dock foremen, and buyers) that are in a position to have frontline communication and interactions with seafood harvesters.



Questions are the path to learning

Training Program Survey

- Six Question Reconnaissance Effort to Outline the Dartboard

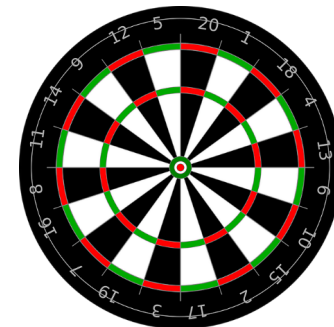
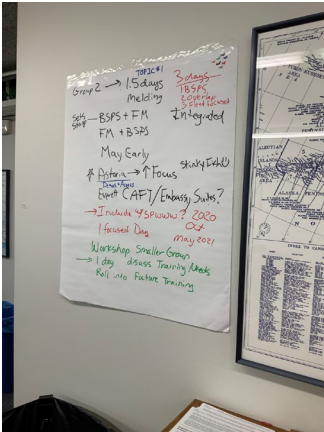
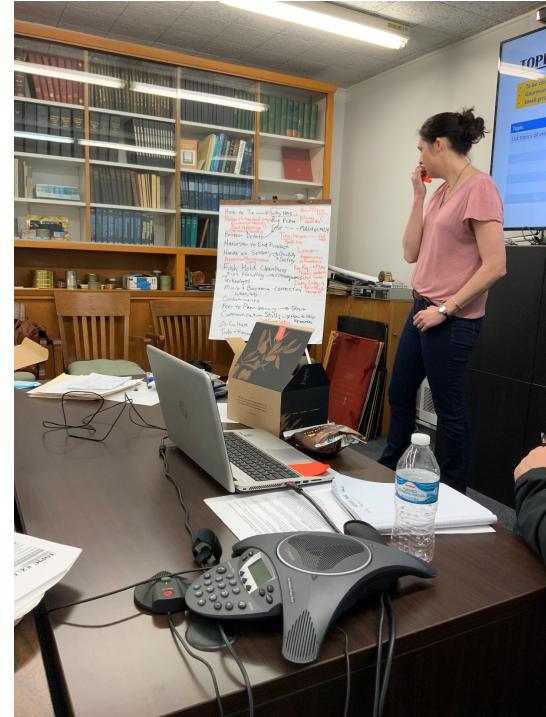




Results / Outcomes:

Program Development Meeting #1 Feb 20, 2020

- Working Together to Define the Dartboard





Next Steps:

Program Development *Meeting #2, September*

- BSPTS 2021
 - In-person?
 - Same structure (50-60 attendees)
 - Mini-course delivered 4-5 key locations (10-20 attendees).

OR

- Professional and Continuing Education (PACE)



Extending Food Safety, Sanitation and Quality Training

Christina DeWitt, Oregon State University,
christina.dewitt@oregonstate.edu
USDA-NIFA, FSOP



Oregon State University
Coastal Oregon Marine
Experiment Station

Thank You





Hawai`i Roots Community Food Safety Project

Sharon Kaiulani Odom
Roots Project Director

kodom@kkv.net

Rootskalihi.com



Goals and Objectives

- 1. Develop a minimum of 5 specific, locally relevant food commodities or safety issues/practices addressed in the new curriculum based on feedback**
- 2. Update current community-based curriculum to reflect new FSMA guidelines relevant to the community**
- 3. Conduct a process evaluation with pilot program workshop participants to determine workshop series and delivery methodology improvements in addressing the needs of Hawai'i's small and beginning farmers, processors, and wholesalers**
- 4. Disseminate updated curriculum to at least 150 individuals through on-site trainings (3 outer island, 5 O'ahu based), 15 local stakeholder organizations and 600 individuals through broader implementation throughout Hawai'i.**

CONNECTION TO FOOD THROUGH A CULTURAL LENS:

Mo'olelo:
Story, tale, myth, history, tradition, literature, journal, log, essay, record article.

"The actual methods of cultivation were in one sense very primitive, in that the Hawaiian planter used only the digging stick (o'o) and his hands to till the soil. However, the variety of plants he cultivated, the animals he raised for food, and the ingenuity and diversity of his methods, such as elaborate irrigation and terracing of lowlands and hillsides, dry farming, mulching, selection of those best suited to a wide range of environmental conditions and valued most for size, quality, and very intelligent production of many varieties of taro, were not primitive at all."



Hawaiian family eating together at Moanalua in 1893 (Bishop Museum)

We will be looking at FSMA guidelines that have been created to prevent people from getting sick from eating the products that we provide. Additional information has been added to each section that helps us to look through a cultural lens at what makes our food system safe and robust here in Hawaii.

Maiau:
Neat and careful in work; skillful, ingenious, expert; correct, careful, thorough, meticulous study.

How can we learn from our local agricultural leaders? What are the best practices they are following? What cultural practices do we use to ensure that our food system is safe?

"After all had finished eating and if any poi were left in the container, the last one to partake must run his finger around inside it to work what clung to the sides down into the mass.... Not to remove all poi smudges and leave the dishes clean - that is, to kahi - called for a sharp rebuke from one's elders."

"Preserving - In putting poi away after the meal the containers were always securely covered to prevent dust from entering and also to prevent the surface from drying and forming a crust. This crust was called apapa'a. Anciently all poi containers had rounded lids that resembled shallow basins and were sometimes used to hold meats when not employed as covers."

"Another fact to be noted about poi is that the acid in the fermenting poi preserves it, and it becomes a food which will keep several weeks without refrigeration, because of course in the old Hawaii, there was not such thing as refrigeration."

Kuleana:
Right, privilege, duty.

Our kuleana is what we are allowed to do with local buy terms.

"Between exchange barter but taro, banana, fish, to a kapa'i n cane take reti, wo ec

MO'OLELO

This section will cover a brief history and overview of FSMA regulations and our cultural connections to a safe food system.

- A. FSMA on the History of United States Food Safety
- B. FSMA Now
- C. Food Safety cases in the United States
- D. Connection to Food Through a Cultural Lens

WAIWAI

WATER QUALITY

This section will go over FSMA agricultural water information, changes to water quality regulations, tools for testing, regulations for the state of Hawaii and a brief look at our long fight for water in our islands for over 100 years.

Federal Level:

- A. Recap of Roots' previous FSMA Agricultural Water Section
- B. Companies that Test for Agricultural Water Quality in Hawai'i
- B1. Testing kits suggested by the EPA and FDA
- C. Changes to FSMA's Agricultural Water Requirements

State Level:

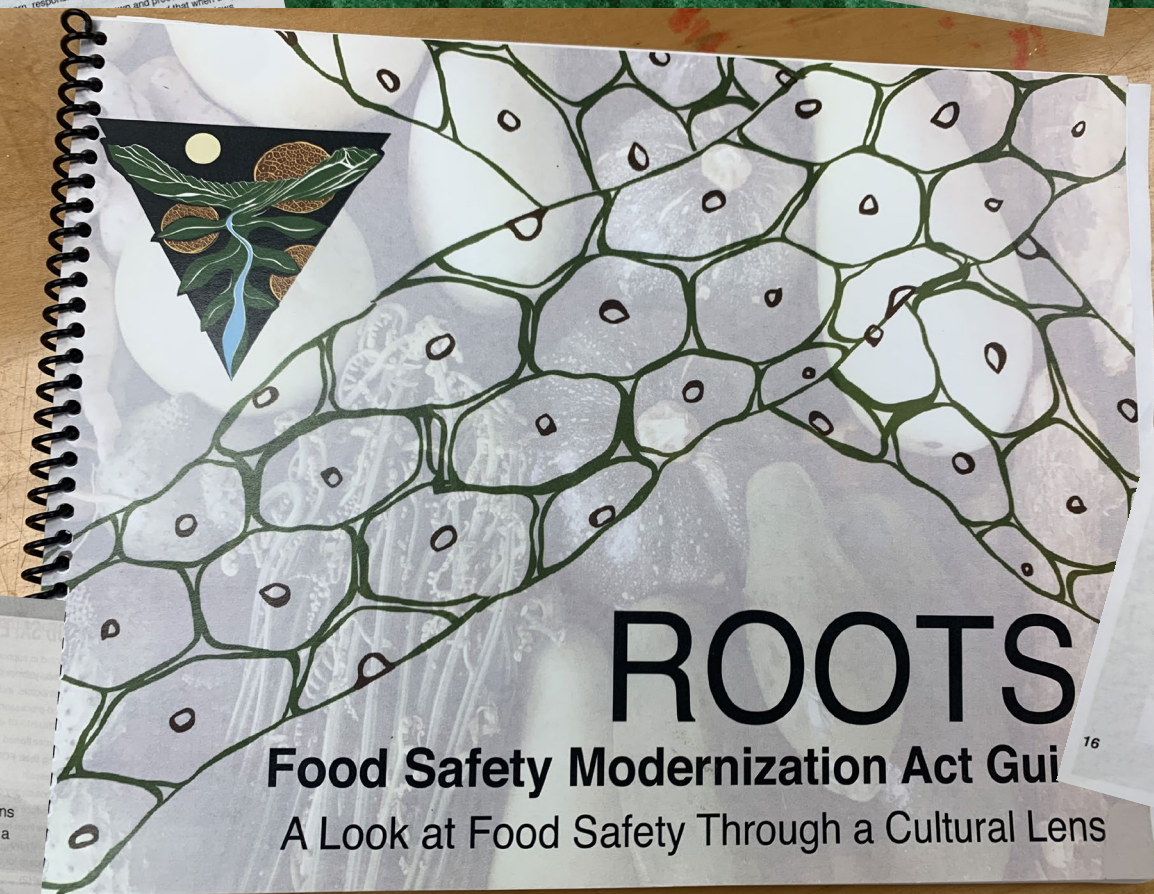
- D. Water Quality Regulations for the State of Hawai'i
- E. Recycled Water Guidelines
- F. Guidelines for the Reuse of Gray Water
- G. Water History in Hawai'i
- H. Water Rights in Hawai'i

KULEANA

BEYOND FSMA: STAKEHOLDERS IN FOOD SAFETY

This section will describe the different roles, responsibilities, and expectations that stakeholders have in the realm of food safety in Hawaii today, and also a comparison to the food system structure of early Hawaii.

- A. Food Safety Concerns of Buyers in Hawaii
- B. Regulatory Agencies
- C. The Indigenous Food System: Roles and Responsibilities



ROOTS

Food Safety Modernization Act Guide A Look at Food Safety Through a Cultural Lens

CONNECTION TO FOOD THROUGH A CULTURAL LENS:

Waiwai:
Goods, property, assets, valuables, value, worth, wealth, importance, benefit.

Here in Hawai'i, water is an important and sometimes controversial subject. Culturally our view and use of water is different than its present day usage in our state. The farming of kalo requires water use that is different from other farming. We will take a look at FSMA regulations, Hawai'i state regulations and guidelines, and historical information.

"Water, which gave life to food plants as well as to all vegetation, symbolized bounty for the Hawaiian gardeners for it irrigated his staff of life-kalo. Therefore, the word for water replicated meant wealth in general for a land or a people that had abundant water was wealthy."

"The word waiwai means wealth, prosperity, ownership, possession. A Hawaiian farmer who had all the water he needed for growing taro was indeed a prosperous man."

"Water, then like sunlight, as a source of life to land and man, was the possession of no man, even the ali'i or mo'i. The right to use it depended entirely upon the use of it. So long as a family lived upon and cultivated land, using a given source, and continued to contribute its share of the labor required to maintain that water source, just so long did it maintain its 'right' to that water. If the family did not use it, it no longer had the right to claim it."



Two men pounding poi together (Bishop Museum)

Hanauna:
Generation, relative whose relationship was established several generations previously, ancestry, birth.

Kalo is our older brother and is one of the most important and nutritious complex carbohydrates. It must be treated with reverence and respect in all aspects of growing. Rules and regulations are still emerging to accommodate its unique growing and preparation requirements. We will bring you up to date on what we know now.

"The old Hawaiian fisherman was a skilled and selected person. He had knowledge of and respect for the traditions and customs of fishing. He was careful to observe these customs, because through them, fishing was preserved for the coming generations and his children were trained in the skill they would need as they became fishermen. Fishing in those days was not a matter of getting all the fish and moving on to another fishing ground. The Hawaiian fisherman was much too clever to do this, and he respected the traditions of waters unless in addition to the laws, we have a feeling of respect for them and observe them because we see that they are beneficial."

"But most disastrous of all was the factor which underlay all these things - the sickening of the co-operative will, and of that sense of well-being within a secure social frame which attends a right relationship between governor and government."



A shared meal in the forest (Bishop Museum)

HANAUNA

KALO: A CASE STUDY

This section will cover current federal food safety regulations for kalo (taro) and state regulations for poi production. FSMA's "Preventive Controls for Human Food" Rule may contain additional requirements beyond Hawai'i State rules for farms that have poi or other processing facilities.

- A. Produce Safety Rule (PSR) and Kalo
- B. Kalo Exemptions for Commercially Processed Kalo
- C. Exemptions based on Sales, Raw
- D. State Laws on Poi and Poi Exemptions
- E. State Requirements for Certified Kitchens Requirements
- F. Certified Kitchen Requirements for Poi Mills
- G. Best Practices From Existing Poi Mills

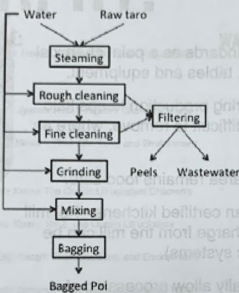
"Taro is the most culturally significant food plant in Hawai'i and also one of Hawai'i's highest yielding staple starch food crops, producing between 10,000 and 30,000 pounds per acre per annum under current wetland cultivation practices. Hence, taro plays a critical role in food security for the State." S.B. NO.774

F. CERTIFIED KITCHEN REQUIREMENTS FOR POI MILLS

Requirements for poi mills are much simpler compared to other certified kitchens.

For example, **You do need:**

- Three compartment sink for scrubbing, washing and sanitizing
- Separate sink for hand washing
- Hot and cold potable water
- Cleanable surfaces: smooth tables, walls, and floors
- Screened windows and doors for ventilation and keeping out animals

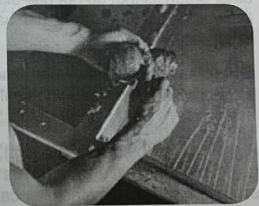
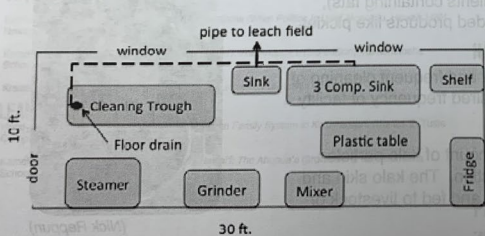


Applying for a permit:

Fill out application and have supporting documents including: Cover letter, application, kitchen map, flow drawing, waste water plan and payment

Cover letter should include:

- Description of your farm and operation: size, ownership, employees.
- How much poi do you intend to produce per week/month?
- How much wastewater will you generate?
- What are your floors, walls and food contact surfaces made of?
- What type of cooking equipment do you have for cooking and grinding?



Cleaning kalo (Bishop Museum)

THE INDIGENOUS FOOD SYSTEM: ROLES AND RESPONSIBILITIES

The Hawaiian concept of responsibility goes beyond that of the conventional English definition of responsibility. Kuleana also encompasses the concept of privilege. In an ancestral view, all of the rights and responsibilities that we are presented should be treated as **gifts and privileges**.

The early Hawaiian social structure assigned these personal responsibilities and privileges, from "high-born" to "commoner." Every person is seen as gifted with the privilege to be able to carry out their kuleana for the benefit of the entire community. More importantly, everyone held a kuleana that related to food in the ancient context of this land. Mahi'ai, farmers, held the kuleana to physically cultivate and produce food but the whole social system held a kuleana to manage resources well, especially water. **Drinking, bathing, and irrigation all require water to be managed with responsibly by the entire community, thus involving the kuleana of all.**

It is this idea of growing and preparing food as a privilege that we highlight as another important aspect of food safety.



This ahupua'a illustration shows the interconnectedness of all roles and responsibilities from mountain to sea. Careful water management ensured clean water for all activities (Life in Early Hawai'i: The Ahupua'a)

MAIAU: THE CULTURAL BEST PRACTICE

The practice of being maiau in our work is a desirable characteristic for people who love and care for the land. To be maiau literally means to be skilful, thorough, neat and careful. Hawaiians believe that the thoroughness, correctness, and cleanliness of how one performed work, reflected great skill and produced higher quality of outcomes. In contrast to a modern view of food safety, thoroughness and correctness were ancestrally defined by aligning activities around spirituality and the rhythms of nature. The structure of Hawaiian farming focuses on producing an abundance of food to feed the entire community. The protocols and best practices to ensure the abundance of food are what we describe as maiau. Anything that would contradict these protocols and best practices would not be seen as "safe."



An early depiction of a Hawaiian 'bu' gourd carrier. Early Hawaiians used 'bu' to carry food or water. 1885. (Bishop Museum)

Pule Ho'oulu 'Ai
 E ke akua nui, akua iki,
 akua loa, akua poko,
 E wehe ka lani,
 Waihoi! Kauhola ka lani,
 Kauhola ka lani,
 Wawahia! Wawahia!
 E Kulanihako'i kuu maiia i luna e hu
 A ua maiia ua,
 A kupa maiia kupa,
 A ni'u o maiia ma'u,
 A iko maiia iko,
 A iko maiia iko,
 A iko maiia iko,
 A iko maiia iko,
 A kumu maiia kumu
 A kumu pe'a hina 'ole
 E ho'oulu mai, E ho'oulu mai,
 A iko maiia e,
 A he leo wale no e!

PULE

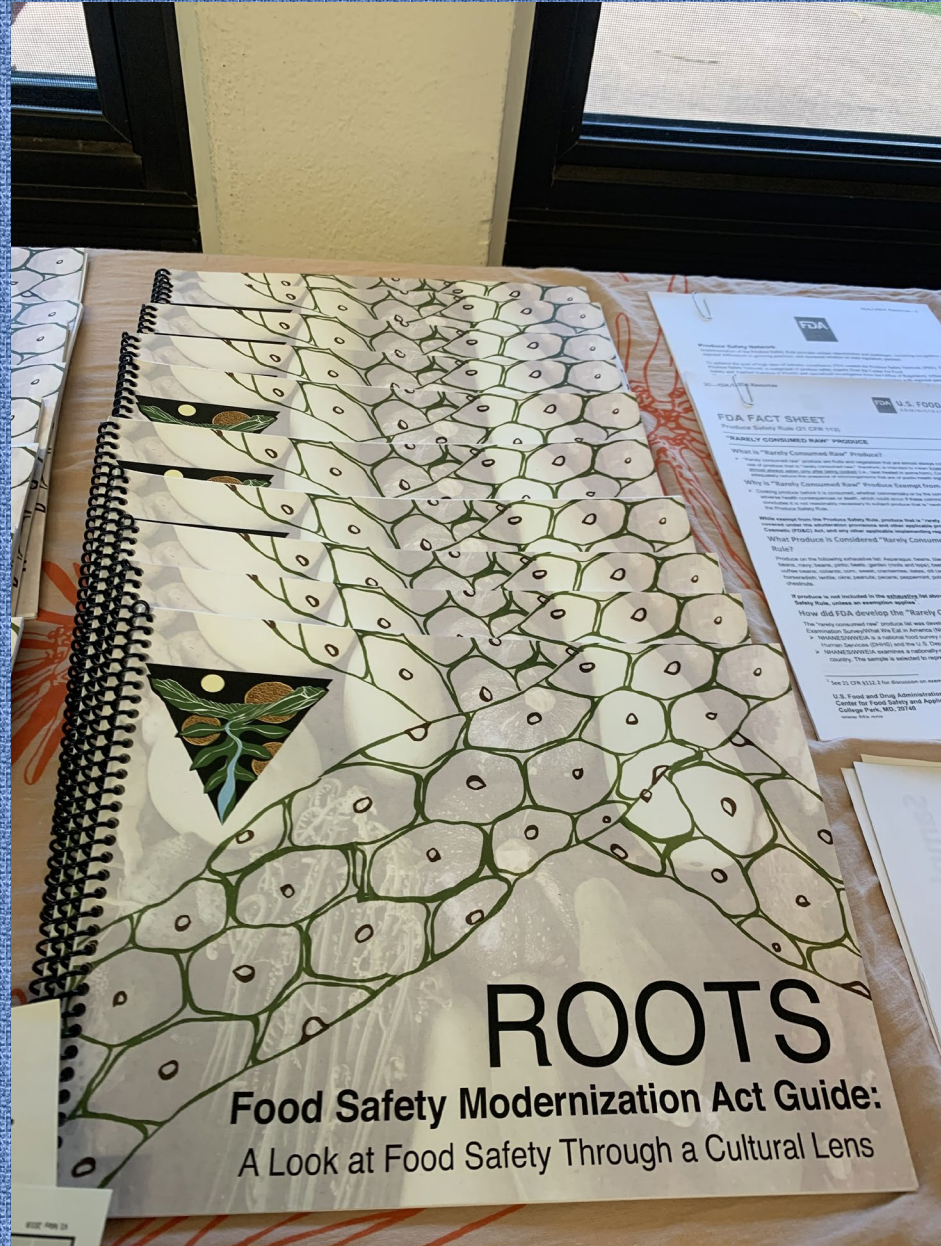
Work around food was always done with pule, or prayer in Hawaiian culture. For Hawaiians, it is impossible to separate the relationship between food and spirituality, with many stories of Hawaiian gods manifesting themselves as plants, animals, and the earth itself. Stories of old tell us about Papahānaumoku as earth mother, Hāloa as the older brother of man in the form of kalo, Lono as 'ua, and many other kīno lāu.

FOOD SAFETY BEST PRACTICES

This section will describe food safety best practices from local agricultural leaders today, and the Hawaiian cultural lens of "safe food."

- Local Agricultural Leaders**
- A. Workers
 - B. Recordkeeping
 - C. In the Field
 - D. Storage and Equipment
 - E. Packing Areas

- Maiau: The Cultural Best Practice**
- Pule
 - Kaulana Mahina
 - Kilo
 - Implements



Challenges

- No interisland travel
- 14 day quarantines
- School campuses closed, including all University of Hawaii systems
- No gatherings
- Current rise in positive cases
- Hawaii started to open and then closed again
- Historical context of pandemic in community

Response

- Video vignettes
- Interviews
- Site specific
- Webinars

