### Food Safety Outreach Program Project Roundtable

February 4, 2021

2:30-4:00 PM ET













### Thank you for joining us for the FSOP Project Roundtable

### Information for today's program:

- We are using the Zoom webinar format. Attendees are muted and your video is off.
- The chat box has been disabled, please use the Q&A function to submit your questions for presenters.
- Slides with presenter permission will be posted to the Southern Center website and linked to the Food Safety Resource Clearinghouse.
- We are not recording this webinar.
- Evaluation will be sent to the email you registered with after the program.

Questions? Contact Katelynn Stull at k.stull@ufl.edu













Southern Regional Center for Food Safety Training, Outreach and Technical Assistance Continuation, and Lead Regional Coordination Center

### Keith R. Schneider, University of Florida keiths29@ufl.edu **USDA-NIFA**

















Southern Regional Center for Food Safety Training, Outreach and Technical Assistance Continuation, and Lead Regional Coordination Center

Keith R. Schneider, University of Florida keiths29@ufl.edu



### REQUEST FOR APPLICATIONS Food Safety Outreach Competitive Grants Program

**FUNDING YEAR:** Fiscal Year 2021

**APPLICATION DEADLINE:** April 1, 2021

**LETTER OF INTENT DEADLINE:** Not Required

AWARD AMOUNT: Approx. \$9,600,000

https://nifa.usda.gov/sites/default/files/rfa/FY-2021%20Food-Safety-Outreach-Competitive-Grants-Program-RFA-508.pdf













Keith R. Schneider, University of Florida keiths29@ufl.edu



# Develop a Communication Plan Reach out to your Regional Centers for Guidance

NECAFS	SC
Elizabeth Newbold	Katelynn Stull
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NCR	WRC
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Keith R. Schneider, University of Florida keiths29@ufl.edu



### What Your Regional Centers Needs from You

- Evaluation is a required component of leading FSOPs.
- Including an evaluation expert on your team is recommended.
- Evaluation should track participation, outputs, knowledge gain, practice change, and success stories
- (WC092/WC092: Using the TOP Model to Measure Program Performance: A Pocket Reference (https://edis.ifas.ufl.edu/wc092))













### Strengthening FSMA Agriculture Water **Outreach and Education for Produce** Growers in Kansas and Missouri

Londa Nwadike, Kansas State University/University of Missouri Inwadike@ksu.edu

Award 2019-70020-30358, USDA, NIFA

















### Strengthening FSMA Agriculture Water Outreach and Education for Produce Growers in Kansas and Missouri

Londa Nwadike, KSU/MU, <a href="mailto:lnwadike@ksu.edu">lnwadike@ksu.edu</a>
USDA FSOP 2019

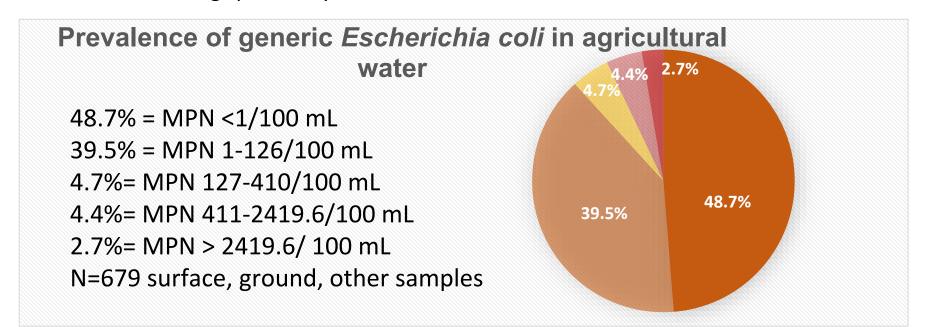




### Problem Statement / Issue Definition:

Based on producer water testing conducted in 2016 FSOP

- Some growers had very high E. coli levels in their water
- Limited knowledge of water testing importance
- Needed more training specifically on water















### Strengthening FSMA Agriculture Water Outreach and Education for Produce Growers in Kansas and Missouri







### Approach / Methods:

- Develop and administer survey on grower knowledge and practices related to water quality
- Pilot study- microbial source tracing
- Demonstration systems on treating surface water for post-harvest use
- Develop grower training materials on ag water 4.
- Provide free microbial water testing to MO and KS produce growers















### Strengthening FSMA Agriculture Water Outreach and Education for Produce Growers in Kansas and Missouri

Londa Nwadike, KSU/MU, <a href="mailto:lnwadike@ksu.edu">lnwadike@ksu.edu</a> USDA FSOP 2019





### Results / Outcomes:

Obj 1: Survey of MO/KS produce growers still open; results so far:

- 36% of respondents tested their water ≥ 1x/ year
- 38% have never tested their water
- 53% use municipal water for post-harvest
  - 8% use pond water post-harvest
- 78% do not treat post-harvest water
- Obj 2: Started sampling for MST (4 ponds, 1 cistern)
- Obj 3: Beginning planning for testing sanitizer effectiveness on cistern and pond water
- Obj 4: Resource development: will translate into key languages
- Obj 5: Continuing free water testing















### College of Agricultural, Consumer and Environmental Sciences

**BE BOLD.** Shape the Future. **New Mexico State University** aces.nmsu.edu



### Online Food Safety Training for NM Food Manufacturers

#### **Executive producers:**

Nancy C. Flores, PhD; Extension Specialist Food Technology Rebecca Mijares, Karla Y. Lopez, Adetoye Abodunrin Gabriela Reyes and Judah Sanchez

**Graphic illustrators:** Anastasia Hames and Adrian Aguirre

Special Effects: Michaelyne J. Wilkinson

Models: Alberto Galarza, Adetoye Abodunrin, Karla Y. Lopez,

Gabriela Reyes and Phil McVann.

Educational Consultants: Sharon Bartley PhD; Paul Gutierrez PhD

This work is supported by Extension Family Consumer Science Department and Grant No.12644511 USDA NIFA

### **Online Food Safety Training**







Module 3 Hand Washing

 Develop training modules for manufactured food facilities in New Mexico. Modify existing materials using the Popular Education model for Hispanic and Native American audiences and for local food processing systems. Pilot developed materials for target audience in focus groups for appropriateness for target audience and then test for online delivery that will certify farmer-processor and food manufacturer. Modify as needed before implementing live online certification program.

### Approach for Training Modules

### Learning objectives and activities tied to specific levels of understanding for each module

### Level 1- Knowledge:

 List the different types of hair restraints available to food workers.

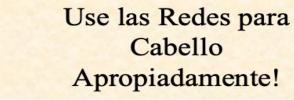
### Level 2- Comprehension:

- Describe how to properly wear the different types of hair restraints available to food workers.
- Explain why food workers must wear hair restraints to ensure food safety as well as personal safety.
- Identify how to properly use hair restraints.

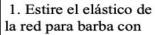
### Level 3- Application:

Demonstrate how to properly use hair restraints.

### Program Development



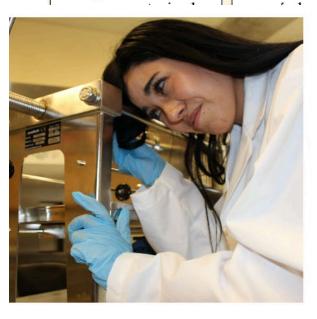






2. Coloque el elástico detrás de la cabeza,









### **GMP** modules

- Hair restraints, Disease control, Hand washing
- Unit ppt narrated presentation
- Embedded videos
- Worksheet and key
- Poster (bilingual)
- Assessment and key

### Results







Bridging the GAPs: Approaches for Treating Preharvest Agricultural Water On-Farm Faith Critzer, Washington State University faith.critzer@wsu.edu USDA, Food Safety Outreach Program















### Bridging the GAPs Faith Critzer, WSU, faith.critzer@wsu.edu USDA, FSOP

### Project Need

- Preharvest water treatment as a strategy identified in the PSR and by some high-risk commodities
- Implementation is extremely complex without any training support
- High likelihood of failure





Irrigation



**Fertigation** 



**Foliar Sprays** 



Cooling



Frost Protection













Faith Critzer, WSU, faith.critzer@wsu.edu USDA, FSOP

# orioging the GRY

### Approach

- Four-part curriculum developed by our team
- Includes supplemental resources
  - Videos
  - Interactive Test Strip Virtual Lab
  - Hands-on activities
- Hosting both grower trainings and train-the-trainers



Module 2: Agricultural Water Treatment Tools

Module 3:
Developing Onfarm Agricultural
Water Treatment
Programs

Module 4:
Implementing
Agricultural Water
Treatment on the
Farm













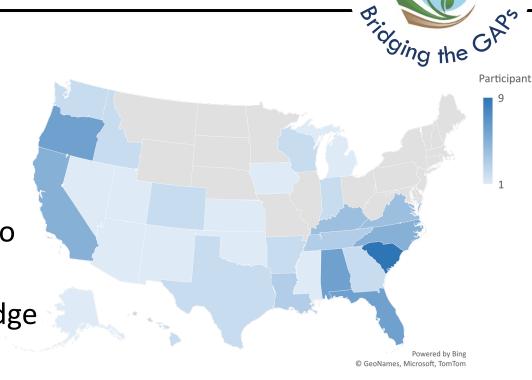
Faith Critzer, WSU, faith.critzer@wsu.edu USDA, FSOP

### Outcomes

- Three train-the-trainers
  - 79 participants
  - 30 states and Puerto Rico



 Participants leave with all the materials to deliver any of the content to their stakeholders











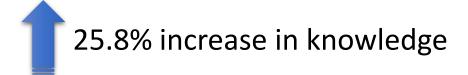




Faith Critzer, WSU, faith.critzer@wsu.edu USDA, FSOP

### Outcomes

- 125 growers trained
  - January-March 2020



 Mean course rating of 4.22 on a 5-point Likert scale

















Faith Critzer, WSU, faith.critzer@wsu.edu USDA, FSOP

### Outcomes

# Animated Videos irrigation.nmsu.edu

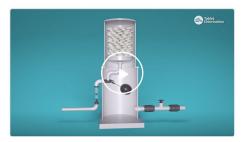


## Water Treatment Systems

for Pre-Harvest Use

Animations to give you an introduction to Water Treatment Systems necessary for pre-harvest. They share some benefits and drawbacks of different Water Treatment Systems.





Tablet Chlorinator - Water Treatment System



UV Light - Water Treatment S UV Light Animation hemical Injection - Water Treatment System









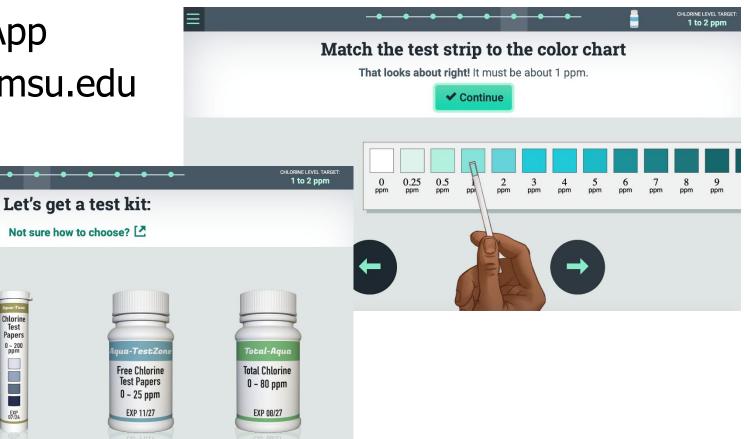




Faith Critzer, WSU, faith.critzer@wsu.edu USDA, FSOP

### Outcomes

Test Strip App irrigation.nmsu.edu





lauaMeasur

Free Chlorine

0 - 120 ppm

EXP 11/17



Papers









### **Experiential Learning Opportunities for Limited** Resource Growers through Mobile Farm Innovation in Mississippi, Alabama, and Georgia

Rebecca Catalena, Alabama Extension rjc0026@auburn.edu USDA NIFA, FSOP























Rebecca Catalena, Alabama Extension, <u>rjc0026@auburn.edu</u> USDA NIFA, FSOP











### Problem Statement / Issue Definition:

The overarching goal of the project is to meet the critical challenges to farm viability faced by socially disadvantaged, limited resource, and minority growers in the region who are trying to balance food safety and conservation concerns.















# Farm Innovation Project in MS, AL, and GA Rebecca Catalena, Alabama Extension, <u>rjc0026@auburn.edu</u> USDA NIFA, FSOP



### Approach / Methods:

- Design and construct three Mobile Farm Innovation trailers to meet the learning needs of limited resource growers with small acreage.
- Develop and implement a multimodal and modular training program that balances food safety and conservation needs.
- Conduct outreach in Mississippi, Alabama, and Georgia
- Evaluate the program















Rebecca Catalena, Alabama Extension, <u>rjc0026@auburn.edu</u> USDA NIFA, FSOP











#### Results / Outcomes:

- One trailer is wrapped in photographs and text depicting safe water use, hygiene practices, vegetative buffers, and safe rotational grazing.
- The inside of the trailer has been modified with cabinets, electrical outlets, and additional space to hold experiential learning activities.
- The second trailer has been purchased and internal modifications are in process.















Rebecca Catalena, Alabama Extension, <u>rjc0026@auburn.edu</u> USDA NIFA, FSOP











#### Results / Outcomes:

- The Farm Innovation material development committee created eight educational fact sheets and facilitator guides.
  - Handwashing Station
  - CoolBot
  - Cold Storage
  - Cleaning and Sanitizing
  - Choosing a Sanitizer
  - Water Sampling
  - Google Maps



#### Sanitizing Food Contact Surfaces

Farm operations use a variety of tools and equipment that come into contact with produce. These tools should be sanitized after they have been cleaned and rinsed. Soaking or spraying tools and equipment is a common way to sanitize.

#### Sanitizing Agents

The products available for sanitizing food contact surfaces come in different forms and concentrations. When using sanitizers on food contact surfaces, make sure the label includes an Environmental Protection Agency (EPA) registration number and it is approved for use on food contact surfaces.

When choosing a sanitizer for your farm's food contact surfaces, consider the safety of workers, the environment, water hardness, pH, and non-corrosiveness. Choosing the correct sanitizer is important to the health and safety of your farm operation.

Some of the common sanitizers approved to use on food contact surfaces include chlorine, iodine, quaternary ammonium or "quats", and peroxyacetic acid. Typical sanitizers include Clorox Bleach, Sanidate, Tsunami, and Vigorox. These products are available in different forms and concentrations.

#### Chlorine Sanitizers

Chlorine-based sanitizers are popular and low cost products. There are many chlorine bleach products available in stores and online. Some chlorine bleaches contain fragrances, thickeners and/or other additives not approved for food use. These products are not suitable for use in your food contact surface sanitizing solutions.

#### The Steps to Verify Proper Sanitization

 Read the label for directions on how to mix the sanitizer with potable water.







#### CoolBot: Low Temperature, Low Cost, & High Value

Proper cold storage can increase your shelf-life and decrease produce safety risks. Many smallscale growers are turning to the CoolBot™ as a solution for their cold storage needs.

Normally, an AC unit can cool a room down to a breezy 60° F. With the CoolBot™, an AC unit can cool a small storage space to a cold 36° F.















Rebecca Catalena, Alabama Extension, <u>rjc0026@auburn.edu</u> USDA NIFA, FSOP











#### Results / Outcomes:

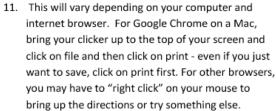
- The Farm Innovation material development committee created seven educational Screencasts.
  - Google Maps
  - PSA Required Records
  - K-State Exemption Worksheet
  - Alabama Extension Farming Basics
  - NECAFS
  - Vermont Peer-to-Peer Portal
  - PSA Sanitizer Tool

Click on the "satellite" button on the bottom left of the screen. This should change your view to satellite view,



Love is Love Farm at Gaia Gardens

giving you a birds eye view of your farm and the surrounding area.





12. This will give you a couple of options, some of these may not be on every computer. You should be able to print and save as a PDF. We're going to "Save as PDF." Again, this may vary depending on your computer and browser.



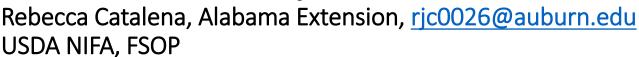






















Results / Outcomes: First pilot took place in Okolona, Mississippi on Dec. 5, 2020 with 13 participants.





























### Results / Outcomes:

- Participants were asked questions about the importance of on-farm handwashing, maintaining a cold chain, cleaning and sanitizing, having a farm map, and water testing.
- After rotating to each activity station, participants reported they were more likely to install on-farm handwashing, install a CoolBot storage unit, make a farm map, and test their water.

I plan to build an on-farm handwashing sink	Post: I Plan of building an on-farm handwashing sink
58.33% Strongly Agree	84.62% Strongly Agree
I plan to build a CoolBot produce storage unit	Post: I plan to build a CoolBot produce storage unit
45.45% Strongly Agree	72.73% Strongly Agree
I plan to make a farm map	Post: I plan to make a farm map
16.67% Some What Agree 66.67% Strongly Agree	100% Strongly Agree
I plan on testing my water	Post: I plan on testing my water
16.67% Some What Agree 58.33% Strongly Agree 16.67% Already Doing It	7.69% Neither agree or Disagree 7.69% Some What agree 84.62% Strongly Agree













Rebecca Catalena, Alabama Extension, rjc0026@auburn.edu USDA NIFA, FSOP





Andrew Williams-Deep South Food Alliance (TUCCA)

E'licia Chaverest-Alabama A&M Small Farms Research Center

Joshua Dawson-Fort Valley State University

Billy Mitchell-National Farmers Union

Kristin Woods, Janice Hall, Amelia Mitchell, & Rebecca Catalena- Alabama Extension

### **Farmer Advisory Board**

Nancy Carnley, Machis Tribe

Carolyn Jones (MS)

Demetrius Milling (GA)

Bill Minor (AL)

Monica Ponce (GA)

**Grover Robinson (AL)** 

Ozell White (MS)













# Developing a Handbook of Produce Safety Standards for Buyers

Wesley Kline, Rutgers Cooperative Extension wkline@njaes.rutgers.edu

Hans Estrin, UVM Extension hestrin@uvm.edu

Elizabeth Newbold, UVM Extension, NECAFS Elizabeth.Newbold@uvm.edu

Jennifer Matthews, Rutgers Cooperative Extension <u>jmatthews@njaes.rutgers.edu</u>



















# Problem Statement/Issue Definition:

- Many produce safety standards and systems to navigate by buyers and producers.
- Need regional resources to make this navigation easier.
- Need to improve:
  - Produce safety knowledge
  - Communication and alignment among buyers and producers



**United States Department of Agriculture** 

Marketing and Regulatory Programs

Agricultural Marketing Service

Specialty Crops Program Harmonized GAP Plus+ Standard

A global market-access solution for the specialty crops industry

















### **Collaborative Approach:**

The need for this Buyers Handbook was guided by an interdisciplinary, regional project team.

















### Approach/Methods:

Goal is to provide a produce safety online handbook to help buyers navigate FSMA PSR and audit standards that impact producers in the Northeast region.

### Project Phases Include:

- 1. Review and compare all relevant state and federal produce safety standards (COMPLETE)
- 2. Develop online buyer handbook based on specific produce safety standards (Version 1 in progress--due in early 2021)
- 3. Extend the project results through education and outreach
  - Slides, fact sheets, social media, existing networks
- 4. Evaluate and assess project and impact
  - Google analytics, surveys, buyer advisory group













## Results/Outcomes from Buyers Handbook Project:

#### **Actual outcome:**

1. A Buyers Handbook that summarizes relevant Northeast state and federal produce safety information in one place

#### **Planned outcomes:**

- 1. Improved competency, connection and collaboration amongst regional buyers
- 2. Expanded materials used by educational programs that support knowledge development of regional buyers
- 3. New knowledge, applied by buyers in meaningful and measurable ways, increases regional market access for producers.









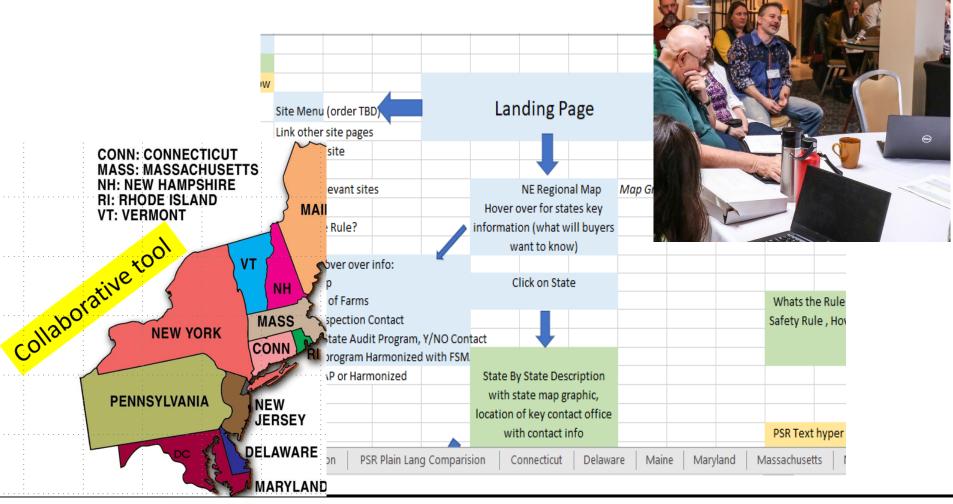




## **Buyers Handbook Project Status:**

Mockup developed with Workgroup Feedback, Site

Development in progress















# IMPROVING ACCESS AND MOTIVATION FOR SMALL AND MEDIUM PROCESSORS IN THE NORTHEAST TO BE IN COMPLIANCE WITH

**FSMA'S PC RULE** 



## Improving Access and Motivation for Small and Medium Processors in the Northeast to be in Compliance with FSMA's PC Rule

Jill Fitzsimmons, Department of Resource Economics, jfitzsim@umass.edu USDA NIFA, FSOP

## PROBLEM STATEMENT

Small and medium sized processors (SMP) in the Northeast face barriers to implementing FSMA's Preventive Controls (PC) Rule, including:

- A lack of accessible resources tailored to their needs,
- A lack of knowledge regarding how the implementation of PC will impact their businesses, and
- Absence of scale-relevant materials that illustrate the potential financial benefits of compliance



## Improving Access and Motivation for Small and Medium Processors in the Northeast to be in Compliance with FSMA's PC Rule

Jill Fitzsimmons, Department of Resource Economics, jfitzsim@umass.edu USDA NIFA, FSOP

## **APPROACH**

- Provide targeted, scaffolded technical support to SMPs.
- Document five SMPs' journey to implement PCcompliant FSP.
- 3. Use documentation to develop accessible, scale-appropriate motivational mixed-media content to encourage SMPs to implement PC.



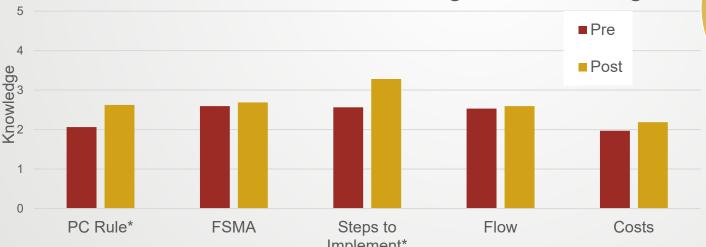


## Improving Access and Motivation for Small and Medium Processors in the Northeast to be in Compliance with FSMA's PC Rule

Jill Fitzsimmons, Department of Resource Economics, <u>jfitzsim@umass.edu</u> USDA NIFA, FSOP







1-hour webinar

3-hour introductory workshop

3-Day PCQI course



This work was supported by the Food Safety Outreach Program from the National Institute of Food and Agriculture, U.S. Department of Agriculture 015331-00002. The contents are solely the responsibility of the authors and do not necessarily represent the official views of the USDA or NIFA.

## Food Safety Management Training for Small and Emerging Food Businesses:

Integrating a Food Safety Culture from Concept to Commercialization

Amanda J. Kinchla, UMass-Amherst kinchla@umass.edu

USDA, NIFA, Grant 2017-04978, Project accession 1014003

Collaborating Team: Nicole Richard, Chris Von Achen, & Lori Pivarnik















### **Food Safety Management Training for Small and Emerging Food Businesses: Integrating a Food Safety Culture from Concept to Commercialization**

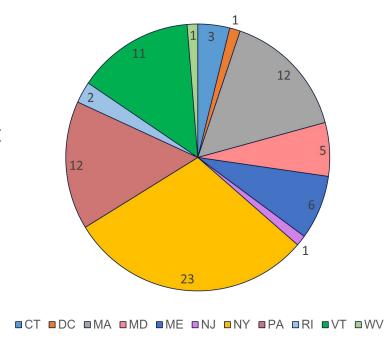
Amanda Kinchla, UMass-Amherst, kinchla@umass.edu FSOP, USDA-NIFA Grant 2017-04978, Project accession 1014003



## **Problem Statement / Issue Definition:**

- The development of shared-use processing facilities - challenged with regulation and food safety compliance.
- Increase feasibility of locally and regionally produced agricultural products, - provide a focused educational delivery of customized training to food entrepreneurs to understand critical food safety considerations from concept to commercialization.
- **Project Goal:** To develop and implement a sustainable food safety training program customized to small and emerging food businesses (SEFB) that will help increase their knowledge in food safety and enable entrepreneurial success in the marketplace.

Northeast Regional Food Hubs (77) reported by National Good Food Network













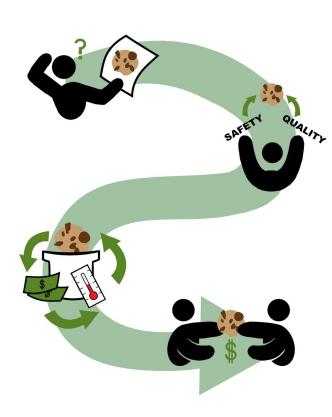


## Food Safety Management Training for Small and Emerging Food Businesses: Integrating a Food Safety Culture from Concept to Commercialization

Amanda Kinchla, UMass-Amherst, <u>Kinchla@umass.edu</u> FSOP, USDA-NIFA Grant 2017-04978, Project accession 1014003



## Approach / Methods:



- Conduct a needs assessment specific to the food safety educational and training opportunities necessary to support small and emerging food businesses.
- 2. Develop a curriculum and online training tools, field a pilot test and evaluate the food safety educational program that addresses the needs specific to small and emerging food businesses that will enable FSMA compliance.
- 3. Implement a **food safety program** specific to small and emerging food businesses to enhance food safety culture













## Food Safety Management Training for Small and Emerging Food Businesses: Integrating a Food Safety Culture from Concept to Commercialization

Amanda Kinchla, UMass-Amherst, Kinchla@umass.edu

FSOP, USDA-NIFA Grant 2017-04978, Project accession 1014003



## **Outputs and Outcomes**

## Outputs

- JFPT Re: needs assessment Jan (2021)
- Standardized Curricula (8 modules)
- 2 pilots (27 participants)
- TTT (23 participants)
- Hosted 4 programs to date programs
   (53 participants)

#### Outcomes

- Participants are more prepared to implement key food safety practices
   Including: Implementing GMPs, records, and assessing and controlling food safety hazards
- Increased awareness of food safety has helped to improve a food safety culture for

## Curriculum

- Training modules
  - 1. Introduction
  - 2. Food Safety Hazards
  - 3. Product Development Life Cycle
  - 4. Controlling Food Quality and Safety
  - 5. Product Labeling
  - 6. Food Safety Management
  - 7. Hazard Analysis
  - 8. Preventive Controls
- TTT curriculum
- Online self-paced training tool

Please reach out to Amanda Kinchla if you are interested in the next virtual Train-the Trainer on April 14th

# Collaborative Food Safety Education Program for Louisiana Retail/Manufacturing Crossover Businesses

Wenqing Xu, PhD Louisiana State University AgCenter wenqing.xu@agcenter.lsu.edu















#### Collaborative Food Safety Education Program for Louisiana Retail/Manufacturing Crossover Businesses

Wenging Xu, PhD, LSU AgCenter, wenging.xu@agcenter.lsu.edu USDA-NIFA, FSOP



## Problem Statement / Issue Definition:

The blending of manufacturers, distributors, and retailers has continued to gain momentum. Food businesses now have the freedom to cross over the traditional boundaries of industry lines. These crossover businesses have their unique challenges because it is difficult to know where they fit in the regulations. With the enactment of the Food Safety Modernization Act (FSMA), the increasing complexity of regulations lead to the confusion of the food business owners and the challenge for local regulatory agencies. Detailed navigation and customized education are needed for retail/manufacturing crossover business owners as well as local regulatory agencies.















#### Collaborative Food Safety Education Program for Louisiana Retail/Manufacturing Crossover Businesses

Wenging Xu, PhD, LSU AgCenter, wenging.xu@agcenter.lsu.edu USDA-NIFA, FSOP



## Approach / Methods:

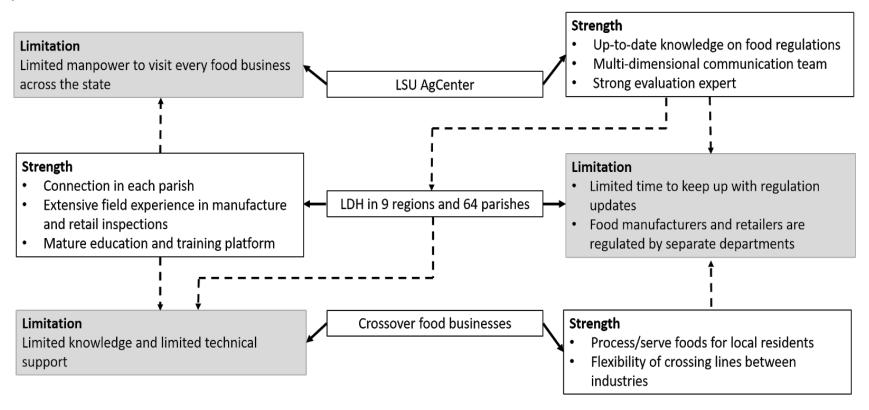


Figure 1. Intent and ability to fulfill the proposed activities















## Results / Outcomes:

- Identify the detailed needs for regulatory and crossover food businesses in food safety regulation training
- Organize and evaluate the existing training materials and identify the gaps.
- Develop a series of eLearning modules and train-thetrainer curriculum for crossover food businesses and LDH sanitarians, respectively.
- Conduct the train-the-trainer workshops for LDH sanitarians and implement the eLearning modules for crossover food businesses.



Figure 2. LDH Administrative Regional Map









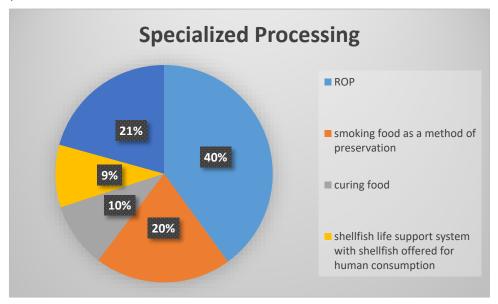






## Results / Outcomes:

- 171 responses were collected
- Most popular variance processes included reduced oxygen processing (ROP) (40%), using of additives such as vinegar as a method of preservation (21%), and smoking food as a method of preservation (20%).

















## Results / Outcomes:

- ROP of raw single ingredient (26%), hot smoking (88%), and sushi (25%) rated the most popular, within each category, respectively. However, only 15% businesses who perform ROP were considered having sufficient trainings, and 13% for smoking foods or sushi.
- Number of sanitarians who reported "not confident when inspecting" reached 27-35%.
- Food establishments not aware of regulation (35%) and no knowledge and resources to develop the systems to comply (35%) were top two challenges.













## Thank you for attending the FSOP Project Roundtable!

Evaluation will be sent to the email you registered with.

Questions? Contact Katelynn Stull at k.stull@ufl.edu











