

# Ensuring Food Safety Competency of Produce Growers and Processors in the NCR Through Expanded Collaboration with Diversified Populations

Ellen Johnsen, NCR FSMA, Iowa State University  
johnsene@iastate.edu

This work is supported by the Food Safety Outreach Program [grant no. 2021-70020-35732] from the USDA National Institute of Food and Agriculture.



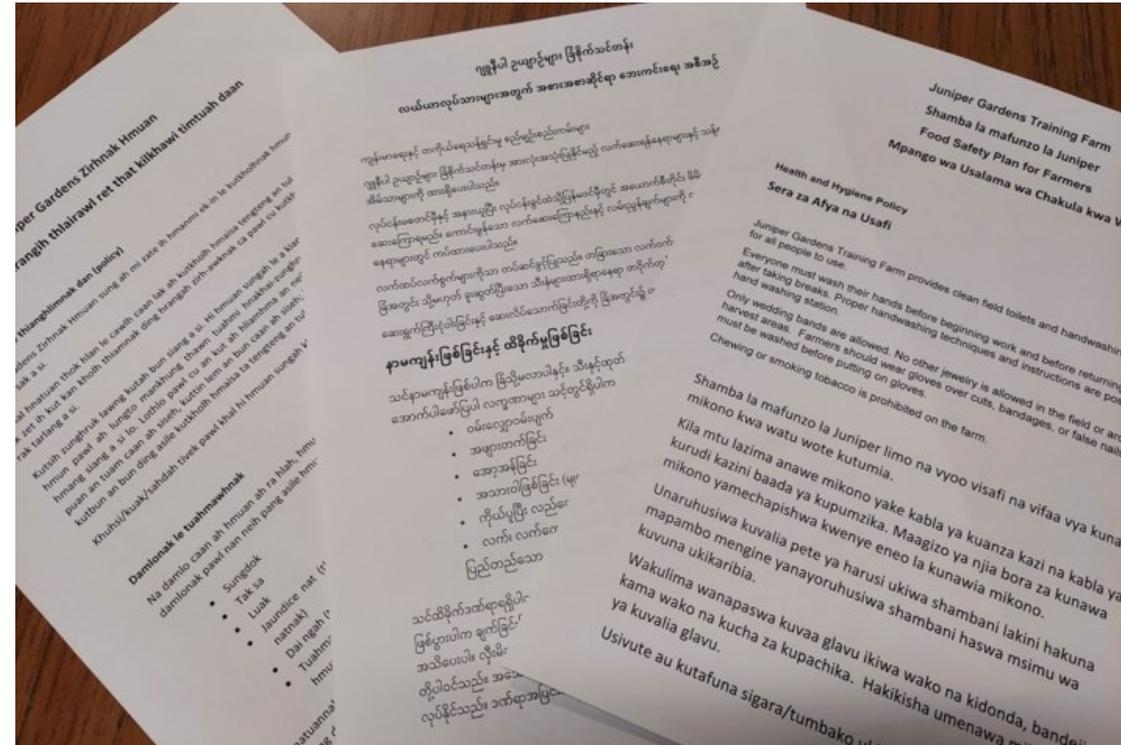
**North Central Region**  
Center for FSMA Training, Extension  
and Technical Assistance

**IOWA STATE UNIVERSITY**  
Extension and Outreach



## Problem Statement / Issue Definition:

Our central hypothesis is that targeted food safety education and access to TA will provide the crucial tools for diversified and underserved growers and processors to facilitate compliance with FSMA regulations.





## Project Team

### Administrative Team

- Ellen Johnsen, Iowa State Univ
- Angela Shaw, Texas Tech Univ
- Arlene Enderton, Evaluator,  
Iowa State Univ

### Professional Development Team

- Phil Tocco, Michigan State Univ
- Kathiravan Krishnamurthy, Institute for Food  
Safety and Health
- Byron Chaves, Univ of Nebraska-Lincoln
- Dan Fillius, Iowa State Univ

### We also work with

- Extension educators in each state
- Non-profits and industry groups
- Government partners (FDA, USDA, state departments of agriculture / health)

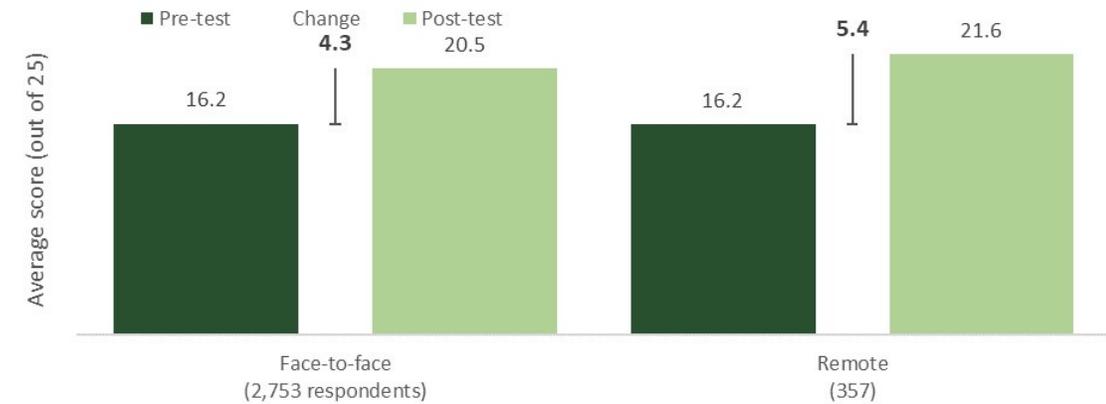


## Approach / Methods:

Our evaluation work includes NCR-sponsored events and PSA trainings on a regional level.



Figure 3: Participants in remote delivery training learned more than participants in face-to-face trainings.



### Top practice changes:



**45% (400 of 881)** of growers changed employee training.



**44% (443 of 1013)** wrote new or modified existing farm food safety plans.



**43% (449 of 1047)** of growers changed cleaning & sanitizing practices.

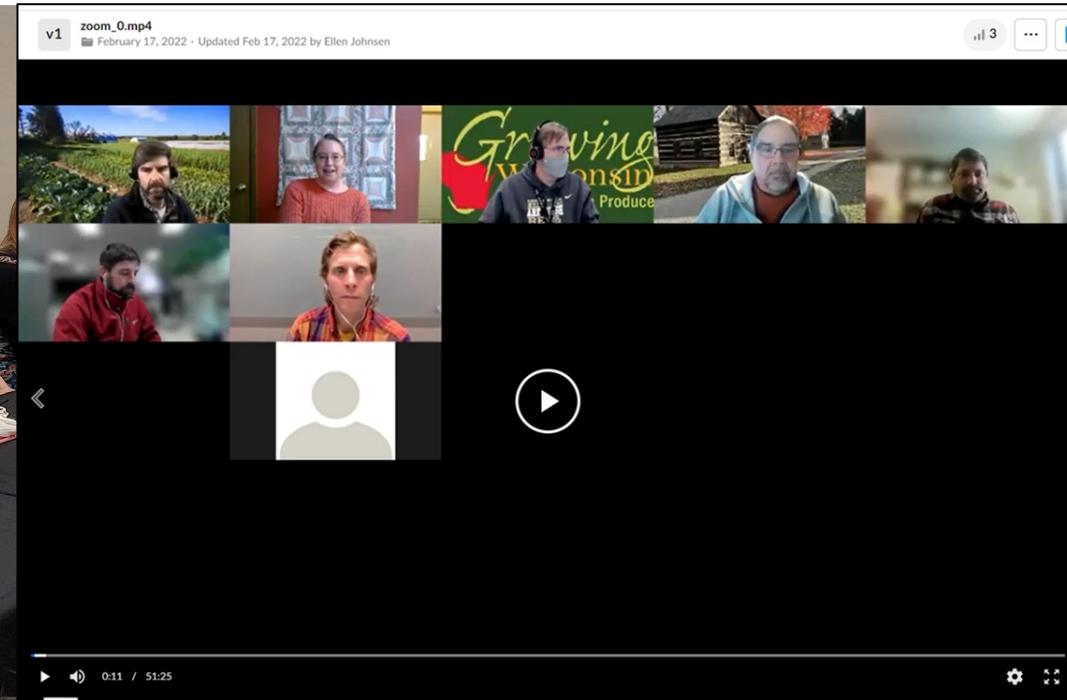


**42% (395 of 944)** started or updated food safety record



## Approach / Methods:

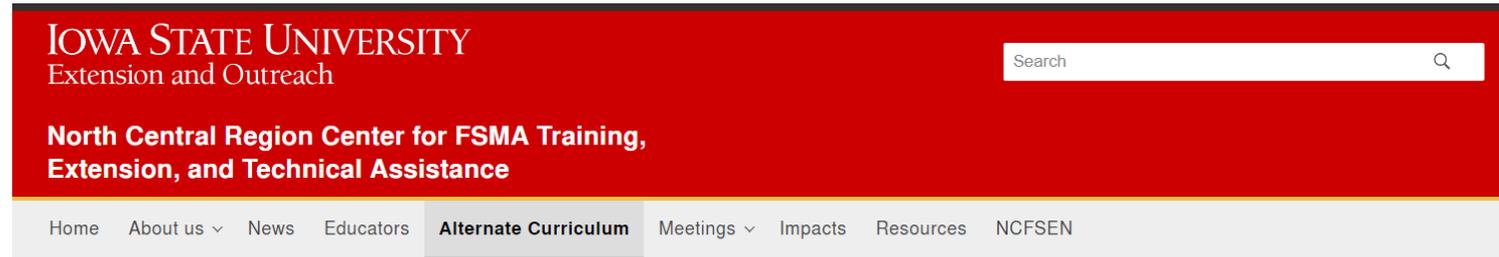
We organize professional development meetings, in-person and online (usually Zoom). We have four monthly meetings: for educators, inspectors, program managers, and those in charge of inventory/outreach.





## Approach / Methods:

We worked with FDA to develop a process for alternate curricula review procedures. NSAC is currently working on a curriculum.



### Alternate Curriculum

[View](#) [Edit](#)

1	Intake Form #1						
2	Submitters fill in only the blank boxes under the blue headings. Columns in green are for reviewers						
3	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)	Activity Aligns with the Proposed Learning Objective (Y or N with comments as necessary)	Designation (For for Stage 2 or Not Ready)
4	See 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.			
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

The Produce Safety Alliance (PSA) Grower Training Course is one way to satisfy the FSMA Produce Safety Rule requirement outlined in § 112.22(c) that requires 'At least one supervisor or responsible party for your farm must have successfully completed food safety training at least equivalent to that received under standardized curriculum recognized as adequate by the Food and Drug Administration'. At this time, the PSA Grower Training Course is the ONLY course recognized by the Food and Drug Administration to meet this requirement. The Produce Safety Rule allows for other curriculum, also known as alternate curriculum, to be developed that would also satisfy § 112.22(c).

**The Alternate Curricula Review Procedures have been completed and reviewed.** The procedures were jointly developed in partnership with the Lead Regional Center, the FDA, the USDA, and other partners. Download the procedures below.  
[alternate\\_curriculum\\_review\\_procedure\\_1.pdf](#)

You can download the intake forms below. For Round 1, please fill out the first two tabs on the Excel file (Contact Information and Intake Form #1). You should be able to copy and paste parts of Intake Form #1 into the tab Intake Form #2 when you are ready for that step.

# Ensuring Food Safety Competency of Produce Growers and Processors in the NCR Through Expanded Collaboration with Diversified Populations

Ellen Johnsen, NCR FSMA, johnsene@iastate.edu  
USDA NIFA; FSOP



## North Central Region

Center for FSMA Training, Extension and Technical Assistance

### Results / Outcomes:

The results of our project include a larger, better-connected produce safety network that supports one another and is intentional to collaborate with one another.



# Ensuring Food Safety Competency of Produce Growers and Processors in the NCR Through Expanded Collaboration with Diversified Populations

Ellen Johnsen, NCR FSMA, johnsene@iastate.edu  
USDA NIFA; FSOP



## North Central Region

Center for FSMA Training, Extension  
and Technical Assistance

The results of our project include a produce safety network that has the:

- Needed training to support growers and processors and
- Knowledge of quality resources, geared toward underserved groups.

Better prepared educators and regulators increase access to technical assistance for niche populations and underserved groups.



# Ensuring Food Safety Competency of Produce Growers and Processors in the NCR Through Expanded Collaboration with Diversified Populations

Ellen Johnsen, NCR FSMA, johnsene@iastate.edu  
USDA NIFA; FSOP



## North Central Region

Center for FSMA Training, Extension  
and Technical Assistance

### Results / Outcomes:

We celebrate our results in our success stories. Some are written by NCR staff and others by the educators, regulators, and students involved in the work.

