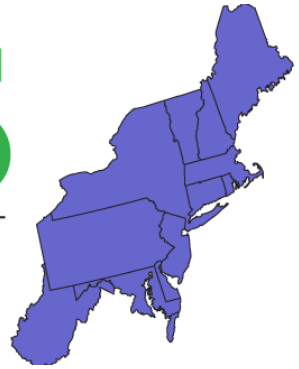
NECAFS

The Northeast Center to Advance Food Safety



Background

Chris Callahan

This work is supported by the Food Safety Outreach Program grant no. 2018-70020-28878 and 2021-70020-35497 from the USDA National Institute of Food and Agriculture.

USDA National Institute of Food and Agriculture
UNITED STATES DEPARTMENT OF AGRICULTURE

Enhance produce safety and preventive controls

Enhance produce safety and preventive controls **training, education, and outreach**

Enhance produce safety and preventive controls training, education, and outreach **among small and medium sized farms and small processors**

Enhance produce safety and preventive controls training, education, and outreach among small and medium sized farms and small processors **in the Northeast.**

Enhance produce safety and preventive controls training, education, and outreach among small and medium sized farms and small processors in the Northeast.

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Who:

- University researchers, educators and extension specialists
- State regulatory and enforcement agency partners
- Local food and farming organizations, NFP's
- Consultants & Industry associations
- Small and medium sized producers, small processors, buyers
- Other regional centers and initiatives, national center, USDA/FDA

Goal:

Enhance produce safety and preventive controls training, education, and outreach among small and medium sized farms and small processors in the Northeast.

Objectives:

1. Establish Foundational Network Structure
2. Build Capacity, Competency, and Collaboration
3. Develop and Deliver Educational Programs
4. Evaluate and Assess Progress and Impact
5. Sustain Good Work

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(Northeast Center to Advance Food Safety)

NECAFS started with NE-PHRESH

(Northeast Postharvest Research and Extension Service Hub)

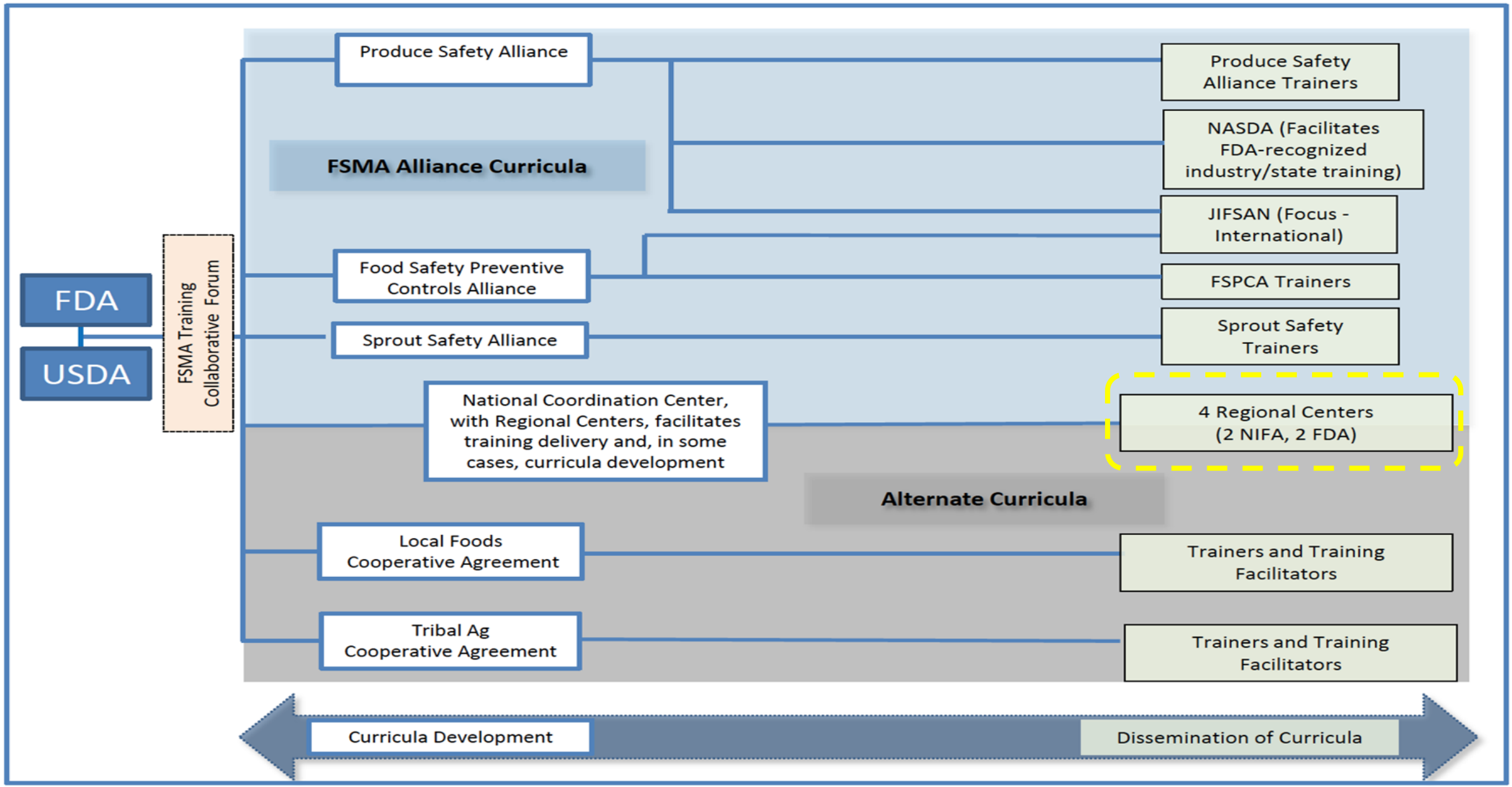
Jan 2015
Amherst, MA

- Disparate opinion, accuracy and location of knowledge. Overlapping and non-coordinated effort in region.
- Based on field experiences. Shared by peers.
- Lacking regional relevance and research base.
- NEED/NERA* Planning Grant ($4k) to focus on postharvest research and educational needs. Together.

* Northeast Extension Directors / Northeastern Regional Association of State Agricultural Experiment Station Directors

FSMA Framework for Industry Curriculum Development and Dissemination

October 2015



This is not an all-inclusive list of entities that will be developing training curricula and delivery for domestic and foreign food businesses.

Enhance produce safety and preventive controls training, education, and outreach among small and medium sized farms and small processors in the Northeast.

NECAFS Team

Chris Callahan

Elizabeth Newbold

Annie Fitzgerald

Sean Fogarty

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Summary of NECAFS 2021 Activities

Elizabeth Newbold
Sean Fogarty
Annie Fitzgerald

Summary List of NECAFS Activities - Preventive Controls

- Roadmap to Resources
- Regional Preventive Controls Needs Assessment
- Regional Processing Data Snapshot

Summary List of NECAFS Activities - Produce Safety

- National Water Lab Map
- Buyer Handbook
- Summarizing and Extending Existing Produce Safety Research
- Produce Safety Research Consortium
- Resources for Hydroponic & Aquaponic Growers
- Systematic Produce Safety Needs Assessment
- Decision Support Tool
- PSA Pre- and Post-Test Evaluation

Summary List of NECAFS Activities – Cross Cutting - Preventive Controls & Produce Safety

- Extension Legal Services Initiative project with the Center for Ag and Food Systems at Vermont Law School
- Food Safety Resource Clearinghouse
- Collaborative Framework Literature Review
- Google Analytics Data Visualization of Usage Metrics from the Food Safety Resource Clearinghouse

Regional Summary of Produce Safety Alliance Pre- and Post-Test Evaluations 2019 - 2021

2019

Summary of Class by Module

Module	Pre Test % Correct	Post Test % Correct	Delta
1	72%	81%	9%
2	92%	97%	5%
3	63%	78%	14%
4	52%	75%	23%
5	52%	76%	24%
6	46%	76%	30%
7	38%	62%	24%

Overall Summary Stats (2019)

	Pre	Post	Delta
N	110	107	-3
Min	3	7	4
Mean Score	**14.7**	**19.2**	**4.5**
Overall %	**59%**	**77%**	**18%**
Max	23	25	2
SD	4.2	4.2	0.0

2020

Summary of Class by Module

Module	Pre Test % Correct	Post Test % Correct	Delta
1	78%	84%	6%
2	93%	97%	4%
3	74%	85%	10%
4	58%	83%	25%
5	68%	84%	17%
6	60%	77%	18%
7	45%	71%	26%

Overall Summary Stats (2020)

	Pre	Post	Delta
N	99	96	-3
Min	9	5	-4
Mean Score	**16.9**	**20.6**	**3.7**
Overall %	**67%**	**82%**	**15%**
Max	24	25	1
SD	3.3	3.7	0.4

2021

Summary of Class by Module

Module	Pre Test % Correct	Post Test % Correct	Delta
1	80%	89%	8%
2	94%	98%	4%
3	86%	91%	5%
4	67%	85%	17%
5	68%	83%	15%
6	66%	84%	18%
7	56%	75%	19%

Overall Summary Stats (2021)

	Pre	Post	Delta
N	90	93	3
Min	8	11	3
Mean Score	**18.4**	**21.5**	**3.1**
Overall %	**74%**	**86%**	**12%**
Max	25	25	0
SD	3.7	2.9	-0.8

Pre-test knowledge has increased.

Post-test knowledge has increased.

The change from pre to post has narrowed.

Resources for Hydroponic & Aquaponic Growers

Active

Sean Fogarty, sean.z.fogarty@uvm.edu

Problem Statement / Issue Definition:

Increasing nationwide prevalence of hydroponic and aquaponic (HP/AP) operations + Lack of educational resources

Lack of shared understanding among growers about produce safety and among regulators, educators, and other stakeholders around the diversity of system designs and operational principles and how they relate to produce safety risk assessment and FSMA compliance.

Approach / Methods:

1. Organize and facilitate advisory board meetings → Educational resource need and project scope
2. Informal grower interviews → On-farm experiences and educational delivery mode and approach preferences
3. Review existing resources and literature
4. Draft factsheet content
5. Factsheet graphic design
6. Advisory group and grower focus group feedback, revision of factsheets
7. Multimedia (web and video) content development

Results / Outcomes:

Print (PDF), web, and video produce safety educational resources for HP/AP growers, regulators, educators, and other stakeholders. Resources will be disseminated through NECAFS Clearinghouse and the other regional center networks to improve produce safety knowledge among growers and knowledge of HP/AP operations among others, ultimately leading to increased produce safety practice adoption, FSMA enforcement and compliance, and ultimately reduced produce safety risk.

Resources for Hydroponic & Aquaponic Growers

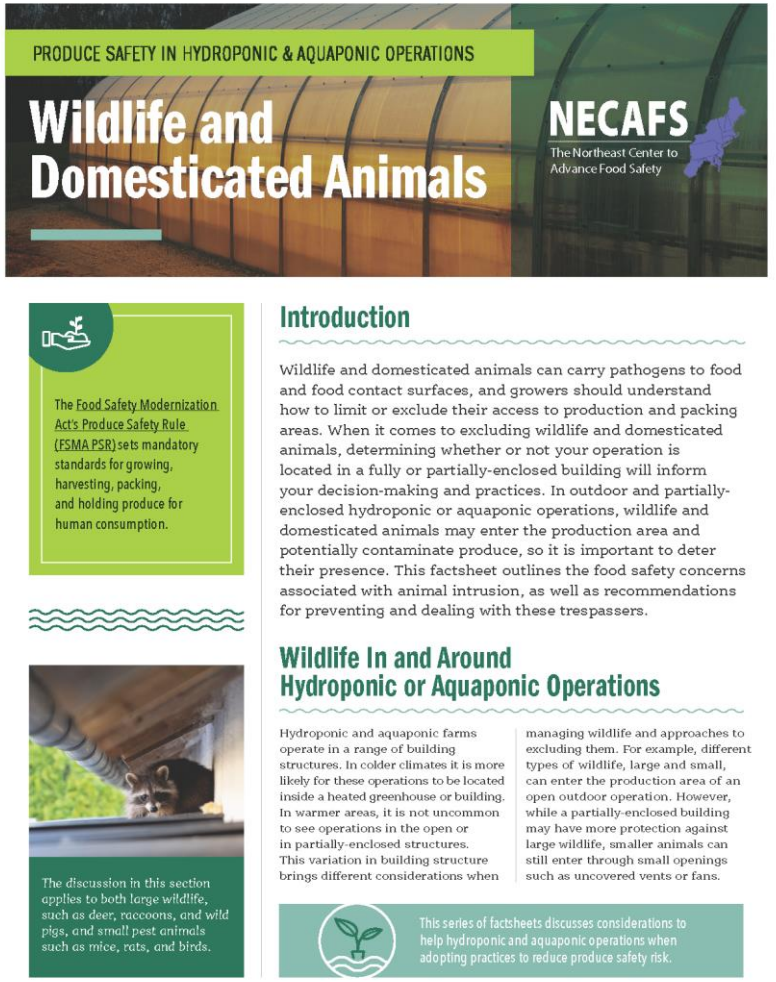
Active

Sean Fogarty, sean.z.fogarty@uvm.edu

Factsheet topics

- Hydroponics and Aquaponics 101
- Cleaning and Sanitizing
- Fish Health and Handling
- Harvest and Postharvest Handling
- Personal Health and Hygiene
- Waste Management
- Water Quality
- Wildlife and Domesticated Animals

First release expected in summer 2022.



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This work is supported by the Food and Drug Administration grant no. 75F40121C00181

Northeast Produce Safety Research Consortium (NEPSRC)

Active

Sean Fogarty, sean.z.fogarty@uvm.edu

Problem Statement / Issue Definition:

Wide-ranging approaches and inconsistent FSMA implementation and inspection decisions across states, due to the diversity of producer features, food safety needs, educational approaches, research project development, and individualized regulatory programs in the Northeast.

There are unique aspects of the growing systems in the Northeast which are worth investigating using quantitative methods to improve both *knowledge*, but more importantly *practice*, to reduce the risk of human pathogens in the fresh produce industry.

Approach / Methods:

1. Provide a framework for on-going region-wide on-farm sampling and analysis targeting pathogens of concern at regional university and FDA labs.
2. Provide a framework for identified data gap research for the Office of Analytics and Outreach (OAO) and for the Office of Food Safety (OFS).
3. Provide a unique framework to evaluate specific FSMA-related guidance and implementation.

Results / Outcomes:

Samples and interview data are collected across various cropping systems most common to the Northeast region and analyzed by regional university labs and FDA leading to an understanding of human pathogen prevalence and survivability.

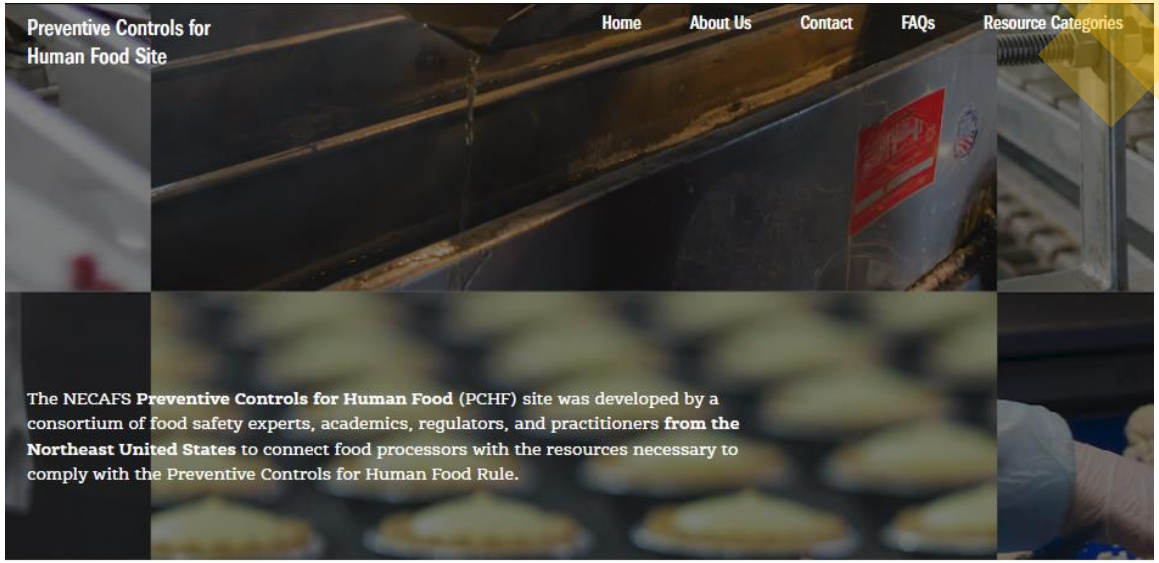
Producers gain increased knowledge about human pathogen prevalence and survivability across cropping systems and adopted practices as informed by research activities.

Producers demonstrate improved fundamental understanding and prioritized adoption of practice when seeking compliance with FSMA PSR.

Curating Resources for Processors

Annie Fitzgerald

- Food safety communicators needed a single, user-friendly resource for small and very small processors
- Surveyed local, state, and federal food safety resources
- Developed a site that supports processors
- Currently in user experience testing
- Peer review is next
- Anticipated launch, late spring 2022



Connect to Resources

Roadmap to Resources

Learn more about the Preventive Controls for Human Food Rule and where to find answers to your questions.

Templates, Examples & Forms

Here you can find sample and real working documents that food processors can use to follow

Connect to a Professional

Find preventive controls educators, experts, and specialists in your area.

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Framing the 2022 Annual Meeting

Elizabeth Newbold

Agenda Review

Wednesday, January 19th

10:00	Break
10:10	Concurrent Workgroup Meetings
11:30	Virtual Poster Session
12:00	Lunch
1:00	Concurrent Workgroup Meetings
3:00	Networking

Thursday, January 20th

8:30	Morning Coffee Networking
9:30	Federal Updates
10:20	Break
10:30	Concurrent Workgroup Meetings
12:30	Lunch
1:30	Report Out and Closing Remarks

Expectations

- Connect with partners
- Meet new collaborators and peers
- Ask questions
- Share resources and experiences
- Engage in discussion
- Workgroup approach is intended to provide time together to move topics along through dialog

  … and to promote co-discovery

  … and to hatch new plans and projects