

# Understanding and Addressing Needs for On-Farm Produce Safety Education in Hydroponics and Aquaponics

Chris Callahan, UVM Extension  
chris.Callahan@uvm.edu  
USDA NIFA FSOP



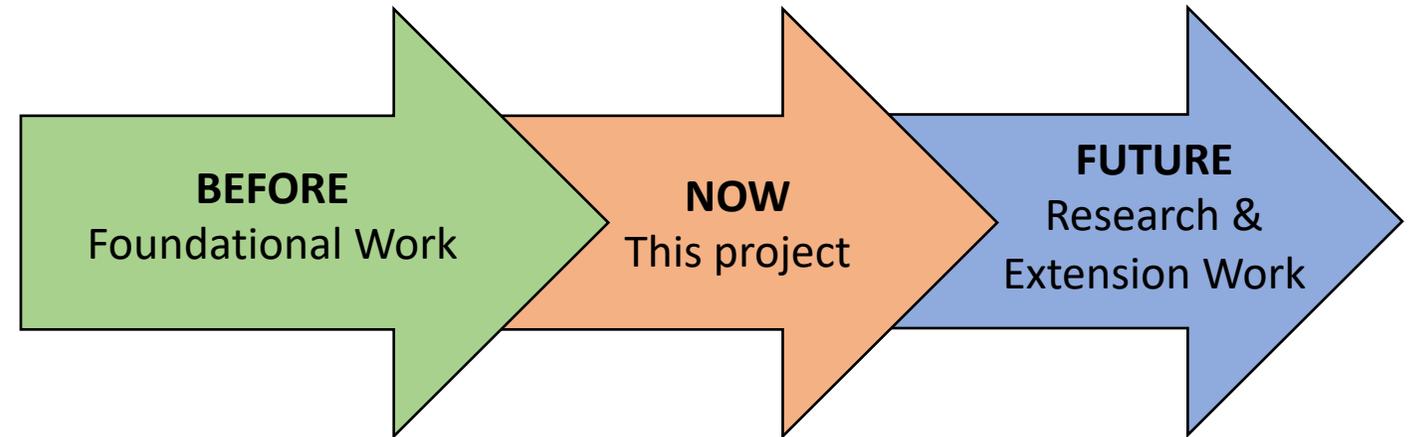
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## Problem Statement / Issue Definition:

**PROBLEM STATEMENT:** The HP/AP industry is growing and is under-served by produce safety educational resources and learning events, while produce safety educators and regulators lack knowledge about HP/AP operations.

**GOAL:** The overall goal of this project is to facilitate coordinated development of produce safety educational resources and experiences for aquaponic and hydroponic stakeholders across the nation to support increased understanding and reduced risk.



### Fall/Winter 2021

- Johanna and Sean - Outreach in industry
- Interviews about need

### Fall 2021 – Spring 2023

- 5 Factsheets published

### Two cohorts

- Growers
- Ed/Regulatory

**Multimedia, multichannel, multiform**

- print, web, video
- case study

**Formalized supplemental materials**

### Learning what we don't know

- Charting a path for further discovery and education

## Approach / Methods:

### 1. **NEEDS ASSESSMENT** -

Determine produce safety educational needs/gaps specific to hydroponics and aquaponics.

Started with a literature review approach. Limited findings. Shifting to a Delphi Study

### 2. **ED DEVELOPMENT** - Develop educational curricula, programs, and resources for diverse audiences.

Two cohort focus: growers generally needing produce safety orientation and educational/regulatory partners needing AP/HP orientation. Starting with intro materials, shifting to case studies in parallel with needs assessment work.

### 3. **ED DELIVERY & EVALUATION** -

Deliver educational resources and programs to target audiences and evaluate outcomes and impact.

Two cohort focus, again: growers generally needing produce safety orientation and educational/regulatory partners needing AP/HP orientation. Starting with webinars, shifting to a PSA supplemental train the trainer and tailored grower trainings.

### 4. **COORDINATE RESEARCH** -

Coordinate research efforts to address knowledge gaps.

We know we don't know everything! Working to identify research needs as we go. Coordinating with other projects that have emerged in this area (SAFER CEA, etc.)

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## Results / Outcomes:

	2022	2023	2024
<b>1. NEEDS ASSESSMENT</b>			
A. Literature Review	█	█	
B. Delphi Study (unplanned output)		█	
<b>2. ED DEVELOPMENT</b>			
A. Intro to AP/HP for non-growers (web/print)	█	█	
B. Intro to PS for growers (web/print)	█	█	
C. Case studies for all (web/print)		█	█
D. Supplemental PSA materials			█
E. Intro to AP/HP for non-growers (video)		█	
F. Intro to PS for growers (video)			█
G. Case studies for all (video)			█
<b>3. ED DELIVERY &amp; EVALUATION</b>			
A. Webinars following the ed outline above		█	█
B. PSA Supplemental Train the Trainer			█
C. Tailored Remote PSA Grower Trainings			█
<b>4. COORDINATE RESEARCH</b>			
A. Research roadmap			█



North Central Region  
Center for FSMA Training, Extension  
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United States  
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