Produce Safety Alliance Annual Trainers & Lead Trainers Update

October 24, 2023

Welcome!

- **All participants are muted**
- **There will be time for questions and discussion throughout the meeting**
  - Please use Q&A or chat, or raise hand to be unmuted
- **This session will be recorded and the presentation will be shared via the listserv and on our website after the call**
- **Today we will share links to a lot of resources – this list will be shared after the call!**

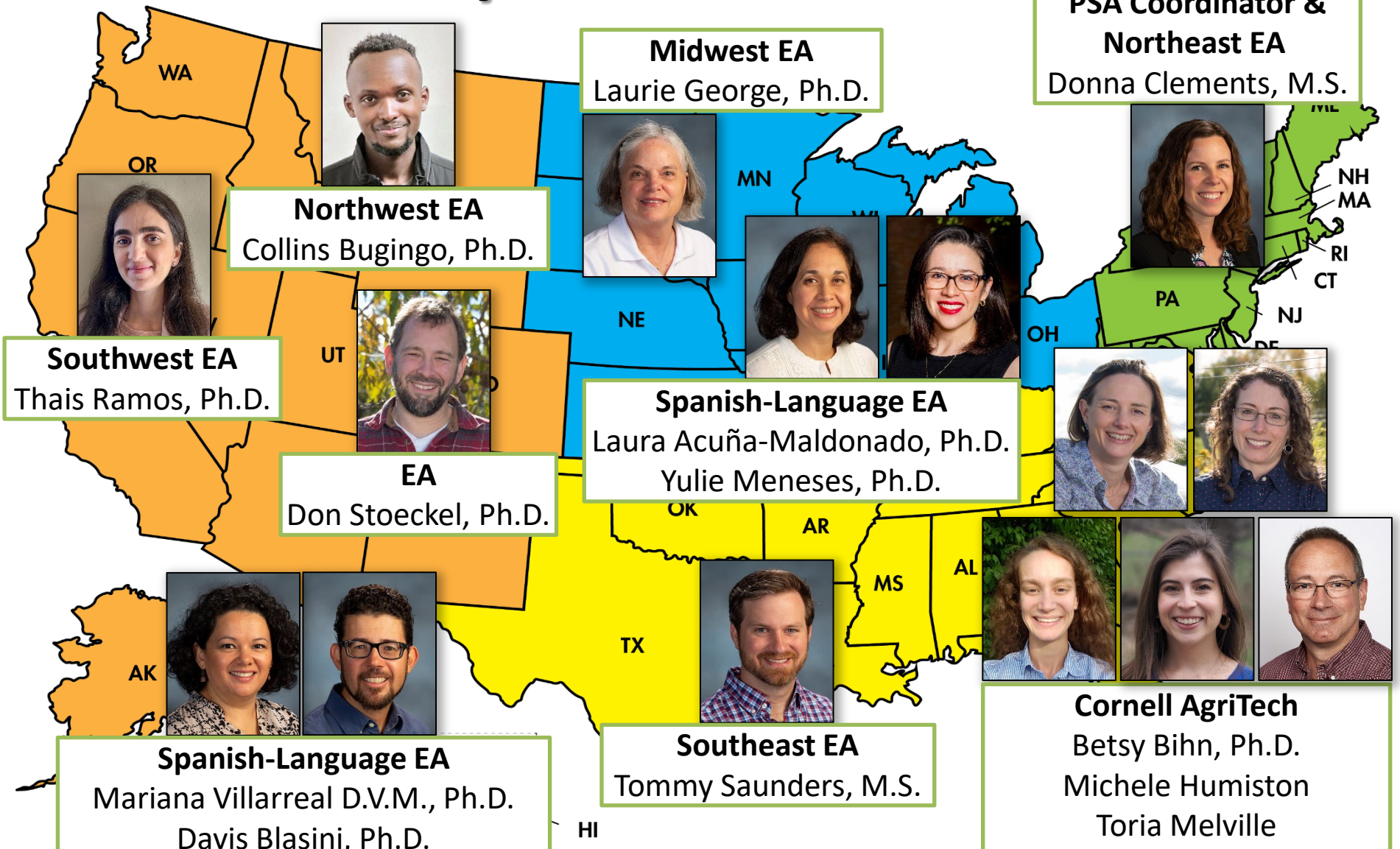
Produce Safety ALLIANCE

Agenda

- Team Updates
- Training Metrics
- Remote & Online Training Updates
- Policy Updates & Reminders
- FDA Updates
- Trainer Resources
- General Resources
- PSA Trainer Discussion
- Spanish-language Efforts
- International Updates
- Update on PSA Funding Timeline

Produce Safety ALLIANCE

Produce Safety Alliance Team



Northwest EA
Collins Bugingo, Ph.D.

Midwest EA
Laurie George, Ph.D.

PSA Coordinator & Northeast EA
Donna Clements, M.S.

Southwest EA
Thais Ramos, Ph.D.

EA
Don Stoeckel, Ph.D.

Spanish-Language EA
Laura Acuña-Maldonado, Ph.D.
Yulie Meneses, Ph.D.

Cornell AgriTech
Betsy Bihn, Ph.D.
Michele Humiston
Toria Melville
Laura Pineda-Bermudez, M.S.
Rob Way

Spanish-Language EA
Mariana Villarreal D.V.M., Ph.D.
Davis Blasini, Ph.D.

Southeast EA
Tommy Saunders, M.S.

Produce Safety ALLIANCE

2023 PSA Team Updates

- Hiring and Training new PSA Team Members
  - New in 2023: Yulie Meneses
  - Returning but in new role: Don Stoeckel
    - Re-joined PSA team to lead Special Projects
  - Still Building Expertise within PSA Team
    - Collins Bugingo – PSA Lead Trainer
    - Thais Ramos – PSA Trainer
    - Yulie Meneses – PSA Trainer
  - Appreciate collaboration and support!

Produce Safety ALLIANCE

PSA Training Milestones

Overall Stats

Sept. 2016 – Sept. 30, 2023

90,120 Grower Training Participants

3,672 Train-the-Trainer Participants

Train-the-Trainer Courses

Domestic

- 103 Train-the-Trainer Courses
- 2,143 Trainers
- 290 Lead Trainers

International

- 30 Train-the-Trainer Courses
- 940 Trainers
- 232 Lead Trainers

Grower Training Courses

Domestic

- 2,802 Grower Training Courses
- 53,173 Grower Participants

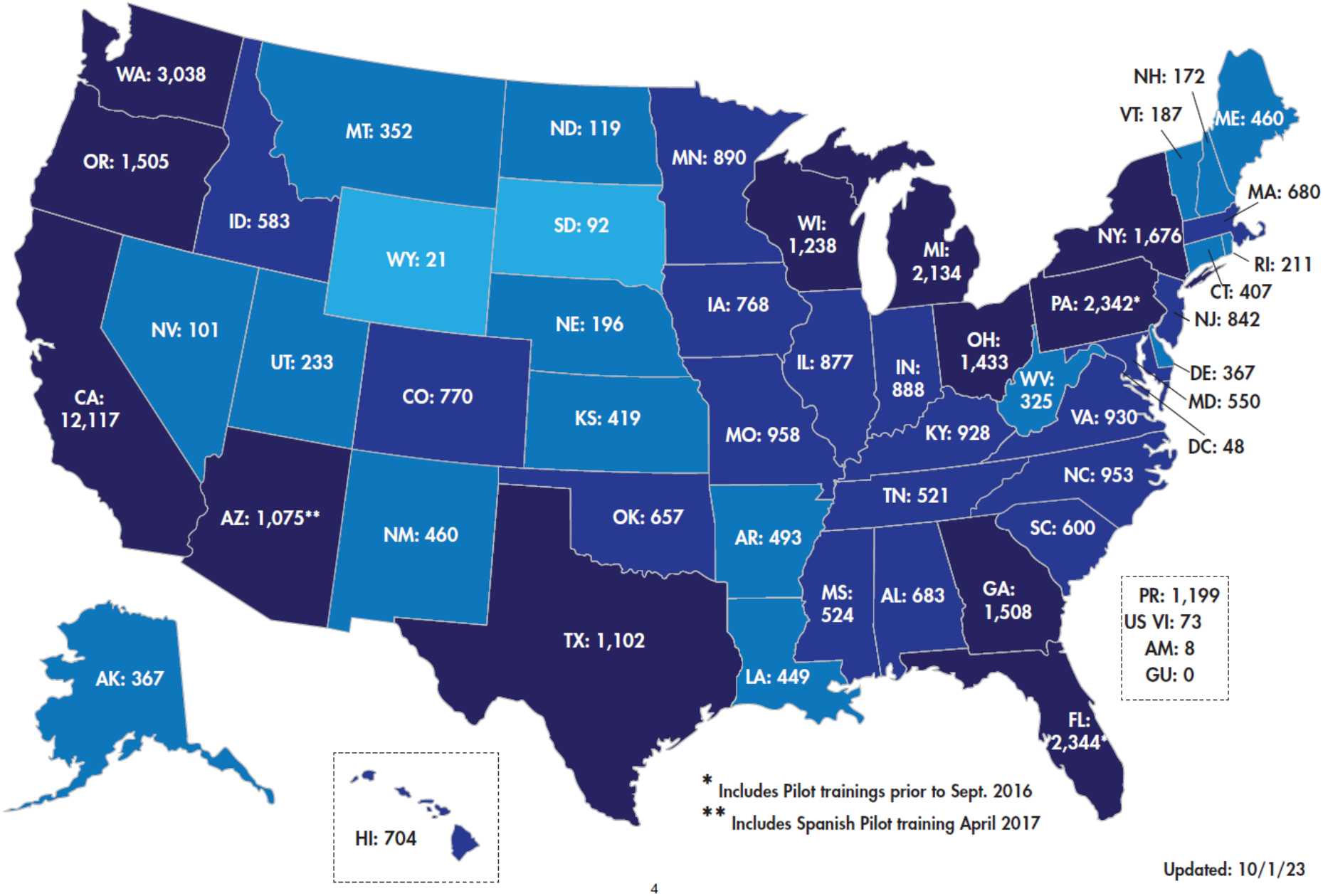
International

- 1,498 Grower Training Courses
- 36,947 Grower Participants

Produce Safety ALLIANCE

Nationwide Produce Safety Alliance Grower Training Course Participants

Locations of Participants Through September 2023 (In-Person, Remote, and Online Deliveries)



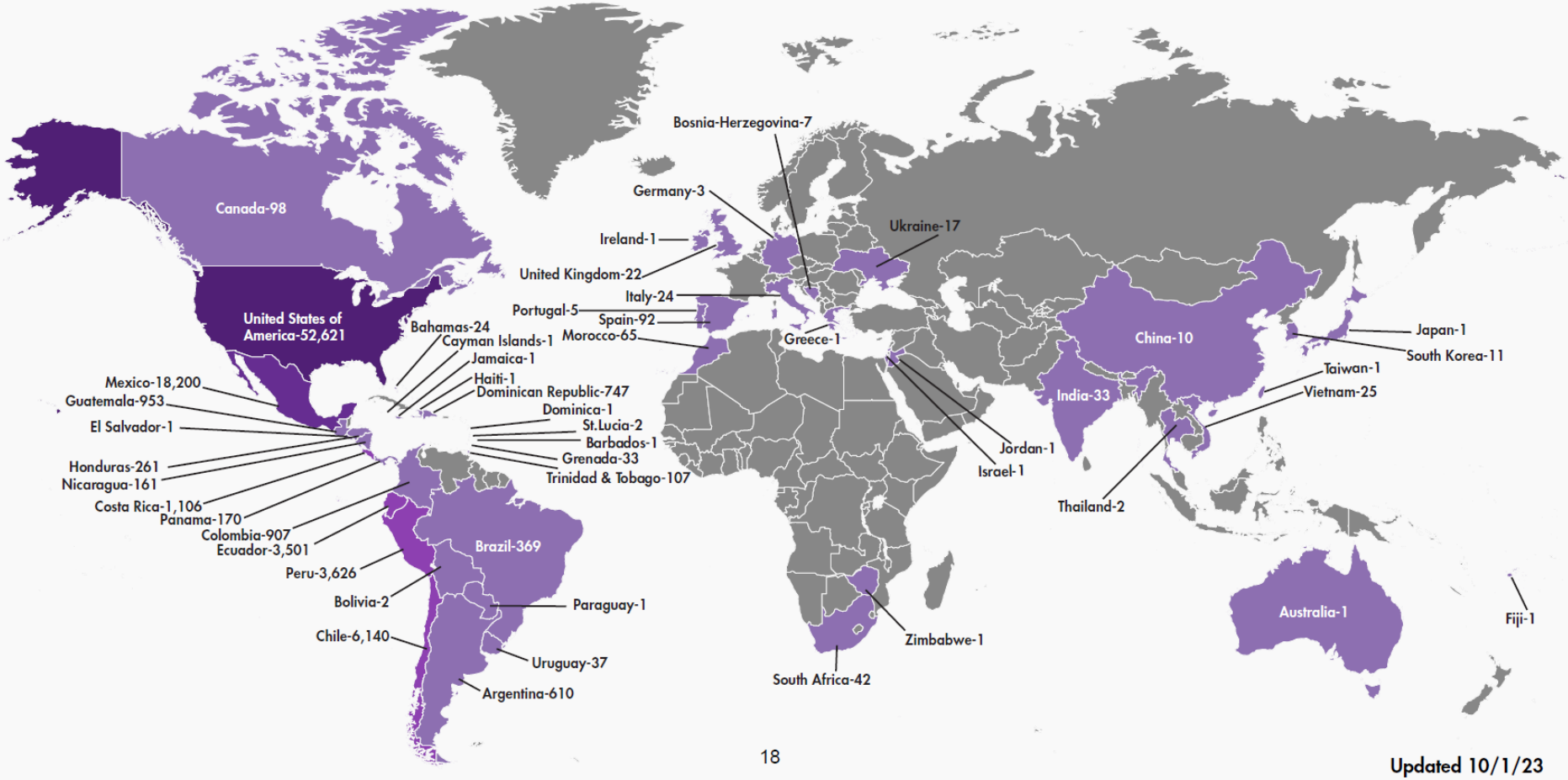
* Includes Pilot trainings prior to Sept. 2016

** Includes Spanish Pilot training April 2017

Updated: 10/1/23

Produce Safety Alliance Grower Training Course Participants

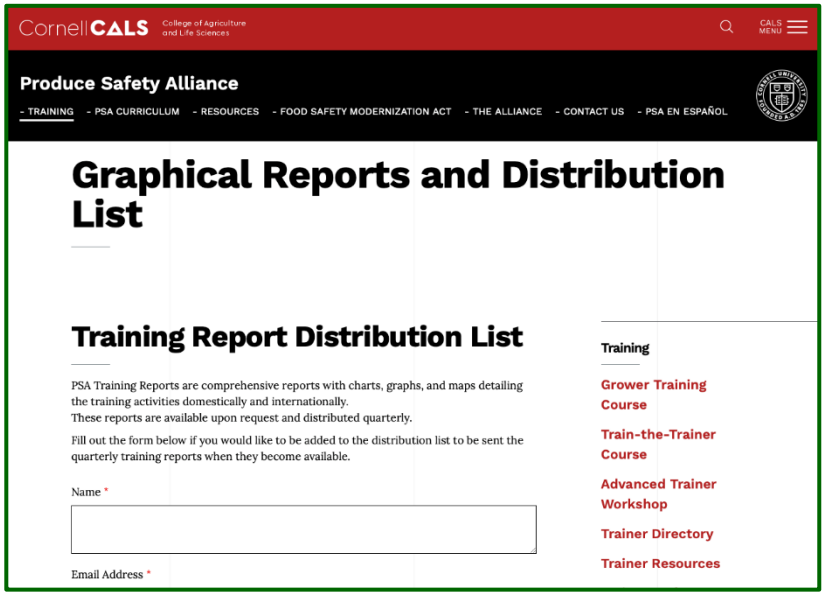
Locations of Participants Through September 2023 (In-Person, Remote, and Online Deliveries)



Updated 10/1/23

PSA's Data Sharing Policy

- Quarterly reports are produced which include state and country breakdown of courses and participants
  - Most recent report available through Sept. 30, 2023
- PSA and AFDO do not share contact information for course attendees or evaluation reports with anyone but the Lead Trainer(s)/Trainer(s) involved in the course
  - This is to protect the privacy of course participants and to ensure that fear of ending up on a "list" does not prevent growers from attending the PSA GT to receive the education they need



Produce Safety ALLIANCE

PSA Trainer Directory

- Reminder that this directory only includes trainers who want to be listed publicly
- New ‘active trainer’ column was added
- Did you change jobs? Change states?
  - **Please update your entry with any changes!**

Produce Safety Alliance Trainer Directory

- Trainers listed in this directory have attended a Produce Safety Alliance Train-the-Trainer Course, and have agreed to be publicly listed in this directory.
  For a total number of trainers in your state, region, or country, please refer to our most recent quarterly training report as some trainers choose to not be listed in the directory or are not actively training.
- In the "Active Trainer" column below, a "Yes" indicates that the person listed has participated as a Trainer in a PSA Grower Training Course within the past 2 years.
- For trainers, please use the Update my Entry form to request a listing update or to be added to this directory.
- View information about our trainer types: PSA Trainer and PSA Lead Trainer, PSA Trainer-of-Trainers (ToT).

Search Options

First Name | Last Name | Business

Select a Language: Select Language | Select a State: Select State | Select a Country: Select Country | Select a Trainer Type: ToTs | Filter To Show Only Active Trainers

Submit | Reset all Fields

Total results found in the Trainer Directory: 34

Database last updated on: 10/10/2023

Name	Business	Location	Trainer Type	Languages	Active Trainer
Laura Acuña-Maldonado Phone: 607-882-5635 Email: lea6@cornell.edu	Produce Safety Alliance	New York United States	ToT	English, Spanish	Yes
Elizabeth Bihn Phone: 315-787-2625 Email: eab38@cornell.edu	Produce Safety Alliance	New York United States	ToT	English	Yes

Produce Safety ALLIANCE

Remote Training Policy Updates

- PSA GT remote policy was made permanent

  Comparing 2019 in-person (GR) and 2022 remote GT(GRRD) data evaluations and stakeholder feedback

  The analysis indicated;

  - That the level of FSMA PSR information was enough to guide implementation for both GRRD and GR
  - An increase in knowledge of FSMA PSR requirements for both delivery formats, with GRRD being statistically more effective for three modules
  - Better instructor effectiveness to deliver the content for In-person than remote trainings for all but two modules

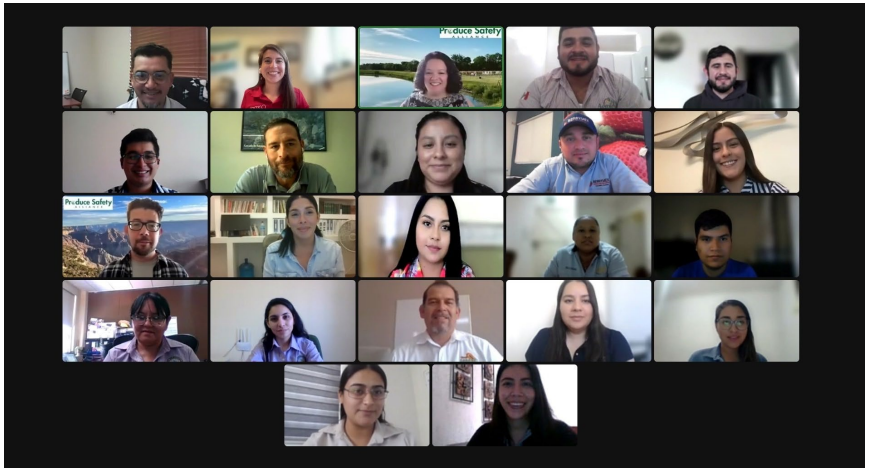
  – Primary concern

  - Twelve percent of the GRRD participants (n=5505) experienced audio /and or video issues

Produce Safety ALLIANCE

Remote Training Policy Updates

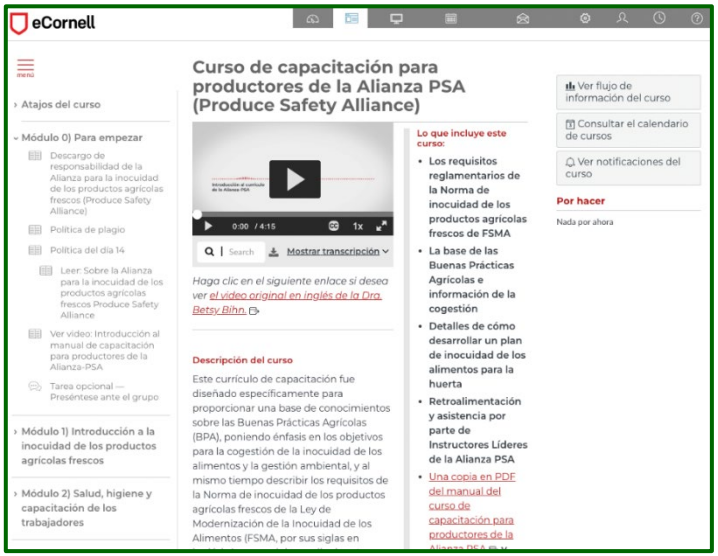
- A factsheet and peer reviewed publication will be released highlighting lessons learned
- **NEW** remote course setup guide and checklist on PSA website under trainer resources
  - Follow the pointers to ensure high quality trainings
- Ensure all remote delivery policies are implemented prior to, during, and after the training



Produce Safety ALLIANCE

Online PSA Grower Training Updates

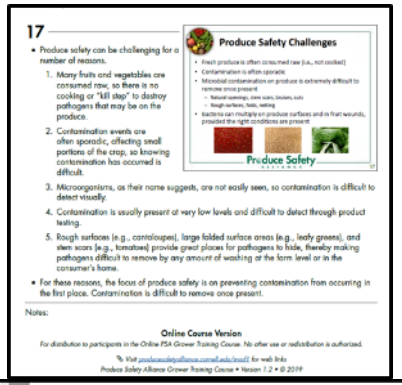
- Online English Course still being offered
  - 3-week, asynchronous, instructor-assisted
  - Currently led by the PSA team and select external facilitators (PSA Lead Trainers)
  - 14-day requirement that participants submit at least one discussion
  - $450 registration fee
- Spanish Online PSA Grower Training Course Launched
  - Similar approach as the English online course
  - First pilot conducted- August 2023
  - Next pilot scheduled for January/ February 2024



Produce Safety ALLIANCE

PSA Policy Reminders

- **Printed PSA Grower Training Manuals**
  - Printed PSA Grower Training manuals are required for in-person and remote PSA Grower Trainings
  - Participants MUST have a printed manual prior to the start of the course or they will not be eligible for the training certificate
  - Participants cannot be expected to print their own copies
  - If participants do not have manuals, we will follow up with the PSA Lead Trainer(s) on record
- **Electronic PSA Grower Training Manual**
  - Available for download as a resource
  - MAY NOT be used as substitute for the printed manual for in-person and remote
  - https://producesafetyalliance.cornell.edu/curriculum/english-grower-manual-v12-interactive-pdf-download/


17

Produce Safety Challenges

- Produce safety can be challenging for a number of reasons.
  1. Many fruits and vegetables are consumed raw, so there is no cooking or "kill step" to destroy pathogens that may be on the produce.
  2. Contamination events are often sporadic, affecting small portions of the crop, so knowing contamination has occurred is difficult.
  3. Microorganisms, as their name suggests, are not easily seen, so contamination is difficult to detect visually.
  4. Contamination is usually present at very low levels and difficult to detect through product testing.
  5. Rough surfaces (e.g., cantaloupes), large folded surface areas (e.g., leafy greens), and stem scars (e.g., tomatoes) provide great places for pathogens to hide, thereby making pathogens difficult to remove by any amount of washing at the farm level or in the consumer's home.
- For these reasons, the focus of produce safety is on preventing contamination from occurring in the first place. Contamination is difficult to remove once present.

Produce Safety

Notes:

Online Course Version

For distribution to participants in the Online PSA Grower Training Course. No other use or redistribution is authorized.

Visit producesafetyalliance.cornell.edu/mod1 for web links

Produce Safety Alliance Grower Training Course • Version 1.2 • © 2019

Produce Safety
ALLIANCE

Reminder: Be Clear When Marketing Your Courses

- **Remote** Course
  - Course led in real time by instructors delivered with video conferencing
- **In-Person** Course
  - Traditional in-person course, be clear if the course is one or multiple days
- **Online** Course
  - A three-week course that can be completed at your own pace
  - The online course is expected to take 15-30 hours for successful completion. Important to share required discussions!

Remember: Advertise as a *PSA Grower Training Course*!
There are other food safety training courses available (e.g., GAPs) and it is important for participants to know what course they are taking.

Produce Safety ALLIANCE

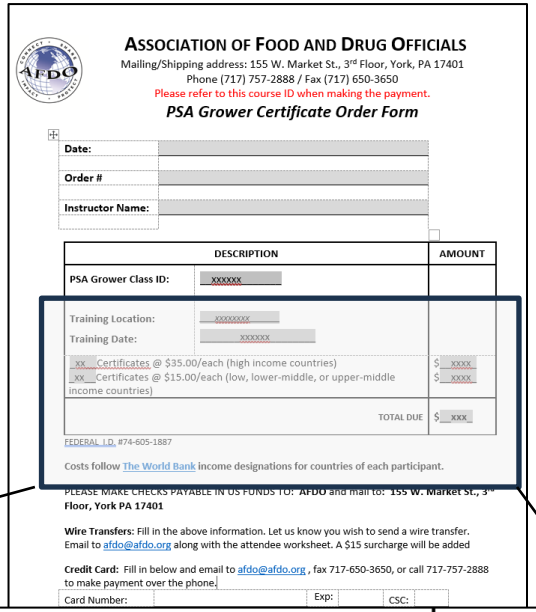
Reminders for PSA Trainers Hosting PSA GTs

- Pre-recorded presentations are not allowed
  - Have received notice that at least one PSA Grower Training Course contained pre-recorded presentations
- Do not reuse PSA GT Course Evaluations
  - This includes paper evaluations (in-person courses) and Qualtrics URLs (remote courses)
- Make sure trainer names are correct when registering courses with AFDO
  - This is especially important when PSA Trainer/Lead Trainer names change between registering and teaching the course
  - You can change instructors, you just need to record final trainers

Produce Safety ALLIANCE

AFDO/PSA Certificate of Completion Cost

- Cost of AFDO/PSA Certificates of Course Completion are offered at a tiered price structure
  - Certificates are $35 for participants from high income countries
  - $15 for participants from all other income countries (based on World Bank designation)
- Intent is to make certificate costs more equitable
- Responsibility of PSA Lead Trainer of each course to determine the correct cost



ASSOCIATION OF FOOD AND DRUG OFFICIALS
Mailing/Shipping address: 155 W. Market St., 3rd Floor, York, PA 17401
Phone (717) 757-2888 / Fax (717) 650-3650
Please refer to this course ID when making the payment.

PSA Grower Certificate Order Form

Date:
Order #
Instructor Name:

DESCRIPTION	AMOUNT
PSA Grower Class ID: xxxxxx	
Training Location: xxxxxxxx	
Training Date: xxxxxx	
xx Certificates @ $35.00/each (high income countries)	$ xxxx
xx Certificates @ $15.00/each (low, lower-middle, or upper-middle income countries)	$ xxxx
TOTAL DUE	$ xxx

FEDERAL I.D. #74-605-1887

Costs follow The World Bank income designations for countries of each participant.

PLEASE MAKE CHECKS PAYABLE IN US FUNDS TO: AFDO and mail to: 155 W. Market St., 3rd Floor, York PA 17401

Wire Transfers: Fill in the above information. Let us know you wish to send a wire transfer. Email to afdo@afdo.org along with the attendee worksheet. A $15 surcharge will be added

Credit Card: Fill in below and email to afdo@afdo.org , fax 717-650-3650, or call 717-757-2888 to make payment over the phone.

Card Number: Exp: CSC:

Training Location: xxxxxxxx Training Date: xxxxxx	
xx Certificates @ $35.00/each (high income countries) xx Certificates @ $15.00/each (low, lower-middle, or upper-middle income countries)	$ xxxx $ xxxx
TOTAL DUE	$ xxx

FEDERAL I.D. #74-605-1887

Costs follow The World Bank income designations for countries of each participant.

Produce Safety ALLIANCE

Alternate Language Policy

- For those serving growers that need a PSA Grower Training Course in a language not currently available or for those with limited literacy
- Addresses language barriers by making the curriculum and training available to a wider audience
- **Plan Ahead**! Likely increases planning and organizational effort for trainers in order to deliver high quality training
- Policy can be found here at PSA Curriculum → Alternative Language Delivery policy
  - Policy includes requirements and additional recommendations
- Contact Donna Clements (dmp274@cornell.edu) if you are interested in training under this policy

PSA Policy Reminders

- **Please make sure to register courses <u>at least</u> 2 weeks in advance!**
  - This provides AFDO the necessary time to generate the registration paperwork and set up the course within the database.
  - Retroactive registration not accepted unless all paperwork can be presented including PSA evaluations, course documentation, and proof of PSA Lead Trainer/Trainer attendance, and subject to $250 administrative fee.
  - If the training date changes, please be sure to contact AFDO to update your course registration – this impacts the course ID and evaluation!
- **PSA Lead Trainer Responsibilities**
  - Reminder: PSA Lead Trainers are responsible for ensuring that all paperwork is completed and returned to AFDO after the course concludes, regardless of other individuals or organizations assisting with the course.

IMPORTANT: Course evaluations and course agendas must include the trainer for each module indicated for use with processing evaluation data

Produce Safety ALLIANCE

FDA Updates

Important changes were made in FY2023:

- Ending of enforcement discretion
  - For harvest/postharvest agricultural water (enforcement began for some farms in 2023)
  - For COVID-era qualified end user documentation (records must be kept starting 2024)
- Passage of a new FSMA rule (Traceability)
- Inflation adjustment of cut-off values

Changes are reflected in PSA products, highlighted in slides about Trainer Resources and General Resources

A Note about Traceability

The Traceability Rule is also known as FSMA 204

- This is because Traceability is its own rule under FSMA; it is not part of the Produce Safety Rule
- The scope of the PSA Grower Training Course covers the Produce Safety Rule
  - Some content is in the course (e.g., OSHA rules, EPA rules, other FDA rules) as relevant to covered farms
  - Those other rules have their own training courses
- PSA continues to talk with FDA to understand any role in Traceability education and outreach for farms
  - Compliance date for all covered operations is in 2026
  - Some of FSMA 204 likely to be in Module 7 - PSA GT v2

A Note about Cut-Off Values

Inflation adjustments apply to:

- The $25,000 produce sales threshold, also known as the *de minimus* exclusion
  - $30,509 3-year average for 2020-2022
- The $500,000 total food sales threshold for qualified exemption eligibility
  - $610,182 3-year average for 2020-2022

Stay tuned; these are updated annually in March/April

Business size class cut-offs are NOT inflation adjusted

FDA Updates (continued)

Other important progress **remains to be accomplished**

- Final Rule for preharvest/production agricultural water
  - FDA states final revised rule language may publish in 2024
- Anticipated proposed rules to modify specific requirements (from a published list of upcoming Federal legislation)
  - Revision of the regulatory **definition of farm**
  - Changes to written notifications for **kill step exemption**
  - Updates to the **Rarely Consumed Raw** list
- Filling the 'reserved' requirement in Subpart F related to time to harvest after untreated BSAAO
  - No process or timeline yet provided in FDA communications

Important Trainer Resources

Bookmark this URL!

PowerPoint Access

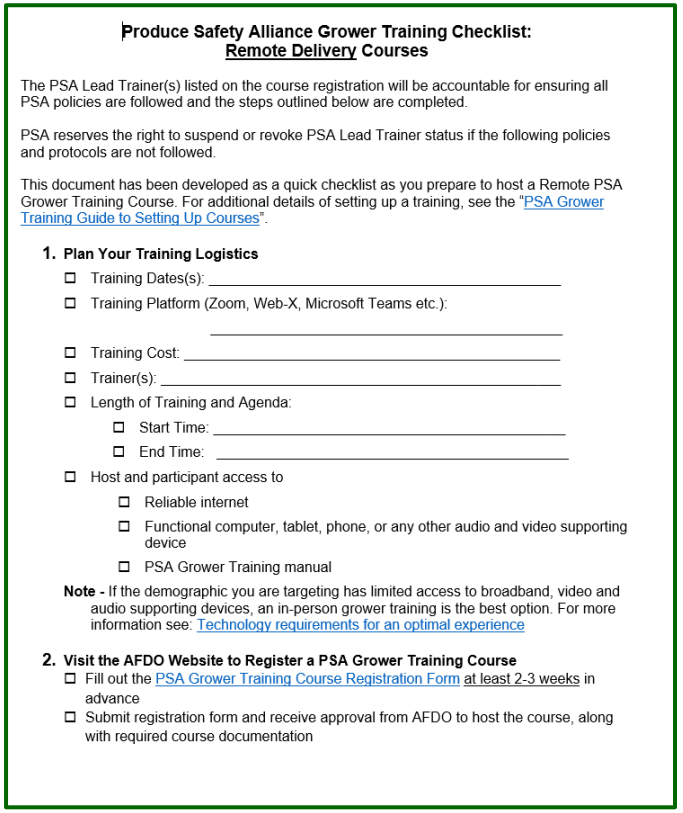
- Download at: https://cals.cornell.edu/produce-safety-alliance/grower-training-powerpoint-modules

Check Updates on the Trainer Update Page

- https://cals.cornell.edu/produce-safety-alliance/training/psa-trainer-updates

Updated Trainer set-up guides and checklists

- New checklist for hosting remote GT Course
- https://cals.cornell.edu/produce-safety-alliance/training/trainer-resources



Produce Safety Alliance Grower Training Checklist:
Remote Delivery Courses

The PSA Lead Trainer(s) listed on the course registration will be accountable for ensuring all PSA policies are followed and the steps outlined below are completed.

PSA reserves the right to suspend or revoke PSA Lead Trainer status if the following policies and protocols are not followed.

This document has been developed as a quick checklist as you prepare to host a Remote PSA Grower Training Course. For additional details of setting up a training, see the "PSA Grower Training Guide to Setting Up Courses".

1. **Plan Your Training Logistics**
   - ☐ Training Dates(s): _____
   - ☐ Training Platform (Zoom, Web-X, Microsoft Teams etc.): _____
   - ☐ Training Cost: _____
   - ☐ Trainer(s): _____
   - ☐ Length of Training and Agenda:
     - ☐ Start Time: _____
     - ☐ End Time: _____
   - ☐ Host and participant access to
     - ☐ Reliable internet
     - ☐ Functional computer, tablet, phone, or any other audio and video supporting device
     - ☐ PSA Grower Training manual

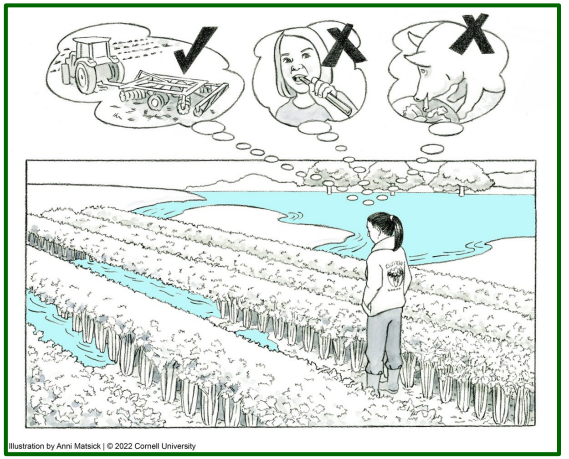
   Note - If the demographic you are targeting has limited access to broadband, video and audio supporting devices, an in-person grower training is the best option. For more information see: Technology requirements for an optimal experience

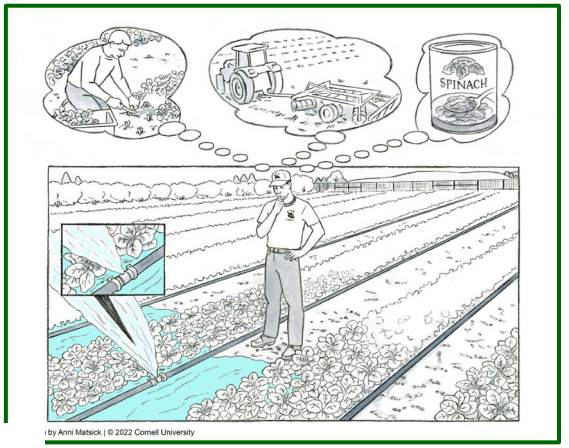
2. **Visit the AFDO Website to Register a PSA Grower Training Course**
   - ☐ Fill out the PSA Grower Training Course Registration Form at least 2-3 weeks in advance
   - ☐ Submit registration form and receive approval from AFDO to host the course, along with required course documentation

Produce Safety ALLIANCE

New Trainer Resources: 'More than Words' illustrations

- Twenty-one illustrations
- New illustrations include:
  - Dropped covered produce
  - Flooding vs. in-field pooling
  - Microbial niches
- Teaching notes will be translated into Spanish

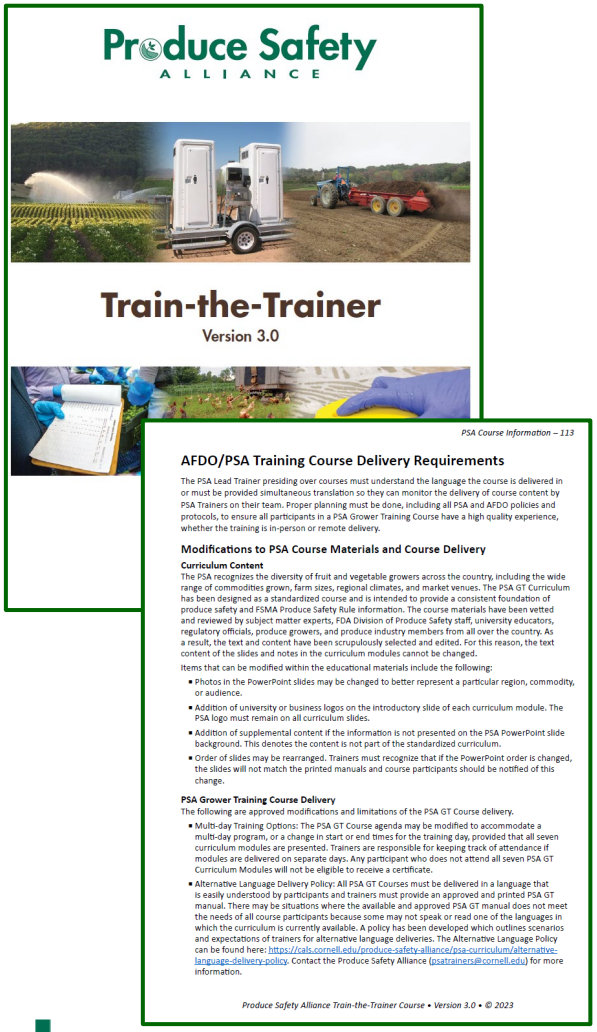




Produce Safety ALLIANCE

New Trainer Resources

- English Train-the-Trainer Manual V3.0 -Interactive PDF
  - https://cals.cornell.edu/produce-safety-alliance/psa-curriculum/english-train-trainer-manual-v30-interactive-pdf
- Manual was updated to be a more comprehensive resource
  - Reflects new PSA policies (e.g. remote delivery policy)
  - Includes supplemental slides (Subpart E, Traceability)



Produce Safety ALLIANCE

New Trainer Resources: Supplemental Slides

- Final FSMA Traceability Rule
- Enforcement Discretion for Qualified Exemption after COVID-19
  - Updated to include expiration of the temporary enforcement discretion policy
- Proposed Subpart E requirements
  - Released in late 2022, but important to highlight again!
- **All Available in English and Spanish**

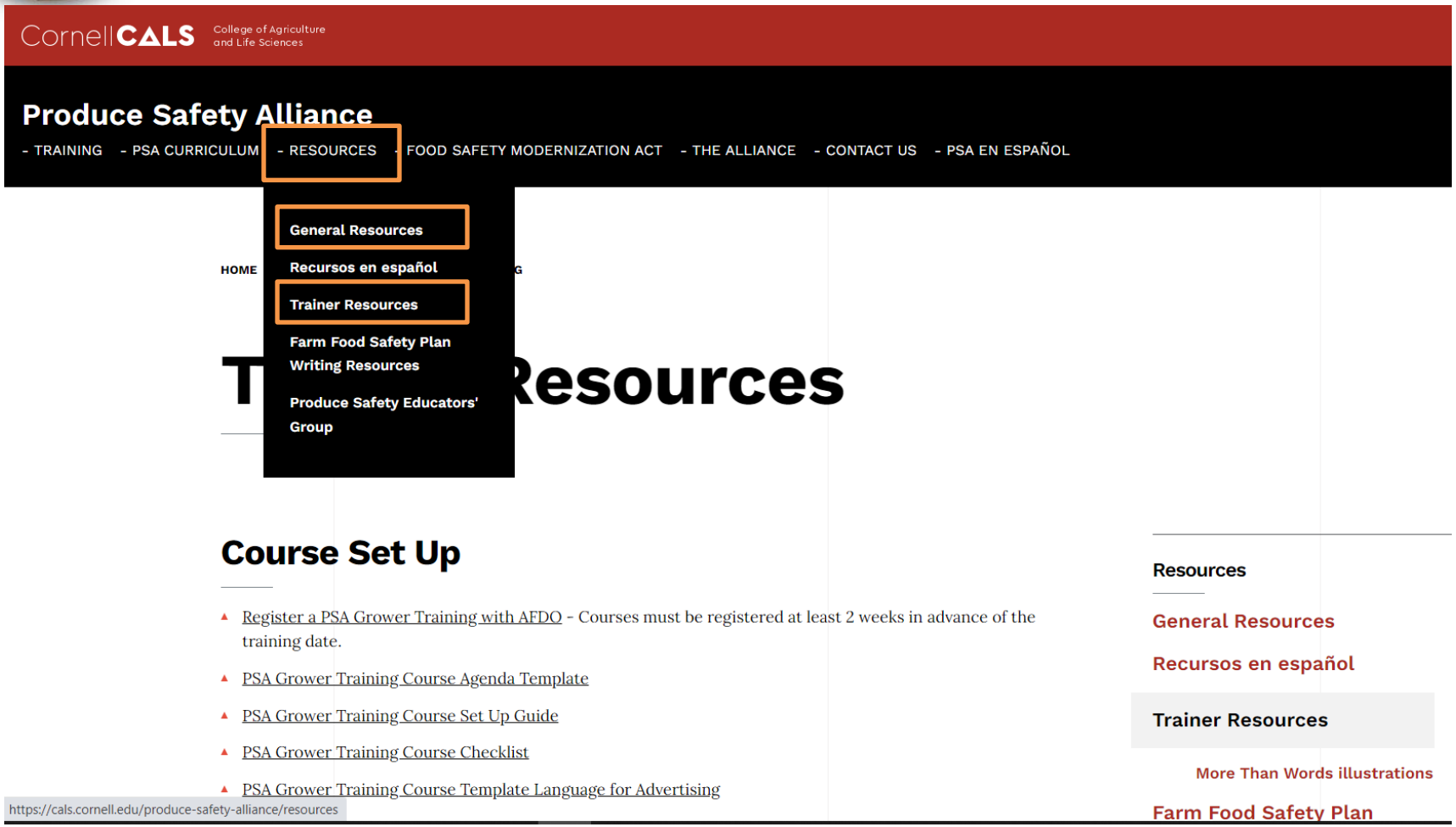
Produce Safety ALLIANCE

Produce Safety Educators' Groups: English and Spanish

- Open to the public; do not have to be a PSA Trainer to participate
- Available in English and Spanish
  - Occasionally topics overlap, but not always
- Recordings available on PSA websites
- Always interested in your ideas for topics and presenters!

Produce Safety ALLIANCE

New Resources



Produce Safety ALLIANCE

General Resources

- Fruit and Vegetable Food Safety Training Video – for Field Employees
  - Integrates FSMA PSR requirements and additional recommendations
  - Available in English, Spanish, Haitian Creole, Hmong, and (soon) Chinese

Produce Safety ALLIANCE

General Resources – Subpart E

Produce Safety ALLIANCE

FSMA Produce Safety Rule: Agricultural Water System Inspection is Different from the Proposed Agricultural Water Assessment

Don Stoeckel, Donna Clements, Thais Ramos, Tommy Saunders, Mariana Villarreal, Elizabeth A. Bihn

May 2023

This fact sheet provides information about the differences between an Agricultural Water System Inspection (§ 112.42) and the proposed Agricultural Water Assessment (AgWA) from the Food Safety Modernization Act (FSMA) Produce Safety Rule (PSR). This information is based on the current FSMA PSR requirements for agricultural water[1] as well as proposed revisions to the current requirements that were published in 2021[2].

Subpart E of the FSMA PSR for fruit and vegetables producers can be grouped into requirements related to:

- Growing covered produce other than sprouts (production/ pre-harvest water)
- Harvesting and packing covered produce other than sprouts (harvest/ postharvest water)

Differences between FSMA PSR Requirements for Agricultural Water System Inspection and Agricultural Water Assessment

The **Agricultural Water System Inspection** is a requirement in the FSMA PSR[1], with enforcement dates phased in (according to business size class) beginning in January 26, 2023 for harvest/ postharvest water. This requirement will eventually include all agricultural water systems at covered farms, including those used for production/ pre-harvest and harvest/ postharvest agricultural water, but currently only apply to harvest/ postharvest water until the final production/pre-harvest standards are published. The requirement covers agricultural water systems to the extent that they are under the farm's control, but requires consideration of off-site influences that could introduce human pathogens to water and the use of practices that reduce these risks.

The inspection must be done at least once per year, to identify conditions that may introduce hazards (e.g., human pathogens) to covered produce or food-contact surfaces through water. Observations made during the inspection are used to guide the implementation of practices such as system repairs, maintenance, or other actions that reduce the identified risks. The findings of the inspection must be documented in the farm's record. The PSA Records Required by the FSMA Produce Safety Rule fact sheet[3] provides a template to aid in recordkeeping.

The **Agricultural Water Assessment (AgWA)** is a proposed requirement[2], subject to change until it is finalized. This requirement would be in addition to the Agricultural Water System Inspection. The AgWA is specific to production/ pre-harvest agricultural water that is used to grow covered produce. The AgWA is proposed to be completed at least once per year, to identify conditions that may result in contamination of the water source or otherwise increase the likelihood of human pathogens being in the water. In contrast to the Agricultural Water System Inspection which focuses on the physical agricultural water system, the AgWA requires consideration of crops being grown, weather impacts, adjacent land uses, and other things that can influence risks to fruits and vegetables being produced. Observations made during the AgWA enable a farm to reduce risks by determining what uses are appropriate for the water source, including application of measures that may be necessary to reduce produce safety risks. The findings of the AgWA, and any corrective measures or mitigation measures applied as an outcome of the assessment, must be documented in the farm's record.

The table on the following page provides a more detailed comparison of the two requirements.

Agricultural water system means a source of agricultural water, the water distribution system, any building or structure that is part of the water distribution system (such as a well house, pump station, or shed), and any equipment used for application of agricultural water to covered produce during growing, harvesting, packing, or holding activities[2].

© 2023 • Produce Safety Alliance • producesafetyalliance.cornell.edu

V1 • 5/10/23

FSMA PSR: Agricultural Water System Inspection is Different from the Proposed Agricultural Water Assessment

Characteristic	Agricultural Water System Inspection	Agricultural Water Assessment (proposed)
Regulatory requirement	FSMA Produce Safety Rule 21 Code of Federal Regulations (CFR) 112.42	Proposed revision to 21 CFR Subpart E
Compliance date	Started January 26, 2022 • Initially under enforcement discretion • Phased in by business size class	Proposed to begin 9 months after the effective date of the final revised 21 CFR Subpart E • Phased in by business size class
Scope of requirement	For all agricultural water systems on covered farms, to the extent under the farm's control. Applies to water used during growing, harvest, and postharvest activities	Applies to agricultural water used during growing activities (production/ pre-harvest water) on covered farms
Frequency	FSMA PSR § 112.42: "At the beginning of a growing season, as appropriate, but at least once annually"	**Proposed** § 112.43: "Based in part on the results of any inspections and maintenance you conducted under § 112.42, at least once annually you must prepare a written agricultural water assessment for water that you apply to covered produce (other than sprouts) using a direct application method during growing activities."
Evaluation parameters	Abridged quote from FSMA PSR § 112.42: "... Identify conditions that are reasonably likely to introduce known or reasonably foreseeable hazards into or onto covered produce or food contact surfaces in light of your covered produce, practices, and conditions, including consideration of the following: (1) The nature of each agricultural water source (for example, ground water or surface water); (2) The extent of your control over each agricultural water source; (3) The degree of protection of each agricultural water source; (4) Use of adjacent and nearby land; and (5) The likelihood of introduction of known or reasonably foreseeable hazards to agricultural water by another user of agricultural water before the water reaches your covered farm."	Paraphrased from **proposed** § 112.43(a): • Water system characteristics: mostly information carried over from the Agricultural Water System Inspection • Agricultural water practices: how the water is used • Crop characteristics: such as those related to adhesion or internalization • Environmental conditions: including potential for water source contamination related to runoff • Other factors: including testing results
Outcome	Maintain water sources and distribution systems to reduce the potential for pathogens in the water.	Paraphrased from **proposed** § 112.43(c): • Determine whether either of the following is reasonably necessary based on findings of the AgWA: (a) discontinuation of use pending corrective measures, or (b) implementation of mitigation measures • Record the determination • Take necessary and appropriate action
Documentation required	FSMA PSR § 112.50(b)(1): "You must establish and keep the following records: The findings of the inspection of your agricultural water system in accordance with the requirements of § 112.42(a)"	Abridged quote from **proposed** § 112.50(b)(2): "Your written agricultural water assessments, including descriptions of factors evaluated and written determinations..." Abridged quote from **proposed** § 112.50(b)(7): "Documentation of actions you take in accordance with § 112.45..." (e.g., discontinuation of use pending corrective measures, implementation of mitigation measures)

© 2023 • Produce Safety Alliance • producesafetyalliance.cornell.edu

Produce Safety ALLIANCE

General Resources – Subpart E

FSMA PSR: Documentation Requirements for Water Laboratory Analysis Results

Produce Safety ALLIANCE

FSMA Produce Safety Rule: Documentation Requirements for Water Laboratory Analysis Results

Don Stoeckel, Laura Acuña-Maldonado, Davis Blasini, Collings Bugingo, Donna Clements, Laurie George, Thais Ramos, Thomas Saunders, Rob Way, Elizabeth A. Bihn
September 2023

The Food Safety Modernization Act (FSMA) Produce Safety Rule (PSR)[1] includes requirements for water quality intended to reduce the number of foodborne illness outbreaks associated with fruits and vegetables. The requirements are qualitative (i.e., § 112.41 requires that all agricultural water must be "safe and of adequate sanitary quality for its intended use") and quantitative, requiring laboratory analysis (e.g., § 112.44(a)(2-4) require that agricultural water that directly contacts covered produce during or after harvest or food-contact surfaces, or is used for hand washing, must have "no detectable generic *Escherichia coli* (*E. coli*)" in 100 mL). The results of all analytical tests done on agricultural water for compliance with the FSMA PSR must be documented and kept in the farm record (§ 112.50(b)(2)).

Information provided in this fact sheet is focused on documentation and testing requirements in the FSMA PSR for agricultural water used in covered activities during and after harvest. Although these requirements are not expected to change with the upcoming revised Produce Safety Rule requirements in subpart E[2], provision numbers or specific language may change.

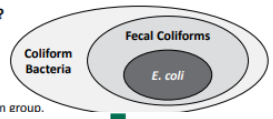
Specific testing requirements for production/pre-harvest water are not addressed in this fact sheet because they are not yet finalized in the FSMA PSR. Currently, FDA advises[2] that farms continue to follow Good Agricultural Practices[3], including testing for generic *E. coli*, so we have included information about testing non-potable water such as surface water sources.

What is required of growers and packers submitting water samples to laboratories for analysis?

The covered farm operator is responsible for knowing that the sample is collected, delivered, and analyzed according to PSR requirements and laboratory specifications. A typical Standard Operating Procedure for sample collection and delivery is available from the National Good Agricultural Practices Program[4]. Many water microbiology analysis methods, including US Environmental Protection Agency (EPA) Method 1603, incorporate requirements in *Standard Methods for the Examination of Water and Wastewater* sections 9060 A (Sampling) and 9060 B (Preservation and Storage)[5]. Several important general requirements are listed on the next page.

Expert Tip: How are the fecal indicator bacteria related?

- Coliform bacteria are found in the environment, soil, and intestines of warm-blooded animals.
- Fecal coliforms are a type of coliform and are more likely to be associated with human or animal feces.
- *E. coli* is one species of bacteria that is part of the fecal coliform group.
- Generic *E. coli* is considered to be the most usef
from humans or warm-blooded animals. Fecal c
recreational water, used for swimming). Coliform
be no coliform bacteria in a drinking water sourc



Required records about water quality analysis, along with other elements that are necessary for all records required by the PSR in Subpart O, are color-coded red in the model record below. These requirements are labeled with associated PSR provision numbers in boxes for reference.

Other elements that often appear in a laboratory report are written in black font.

Model Laboratory Name

Laboratory Address
Telephone contact information
Internet contact information
Laboratory certification or accreditation[A]

Sample Information:
- Date received *(by lab)*
- ID assigned at intake *(by lab)*
- Sample date and time *(by customer)*
- Analysis start date and time *(by lab)*
- Results read date and time *(by lab)*
- Report date *(by lab)*

Client: Farm name
Farm location
Customer name
Customer ID

§ 112.161(a)(1)(i)

§ 112.161(a)(1)(v)

Analysis Information

Sampled by: Name from submission sheet

Matrix: Water type *(ground, surface)*

Sample:
Lab ID: *(From laboratory)*
Water source ID: *(From customer)*
Parameter: Generic *Escherichia coli* (*E. coli*)[B]
Analysis Method: Method used by lab[C]

§ 112.44[B], § 112.50(b)(9)[C], § 112.151[C]

Results:
Dilution: *(if any)*
Result: Analytical result
Calculated result: *(if any dilution)*
Units: CFU/100 mL or MPN/100 mL

§ 112.50(b)(2), § 112.161(a)(1)(ii)

Reviewed for farm record: Supervisor signature[D]
Date: Date

§ 112.161(b)

Produce Safety ALLIANCE

General Resources – Products in Progress

- Update of the Required Records document
  - Focus on supporting documentation requirements for harvest/postharvest agricultural water
- Decision tree for conducting an ag water systems inspection
- Resources related to Subpart E – Postharvest Water
  - List of resources to help farms and regulators prepare for inspections

Resources Related to Food Safety Modernization Act (FSMA) Produce Safety Rule (PSR) Requirements for Agricultural Water Used During Harvest and Postharvest (21 CFR 112 Subpart E)

The Produce Safety Alliance (PSA) compiled the following list of resources to support farms and regulatory authorities as they prepare for inspections covering the requirements of the FSMA Produce Safety Rule Subpart E, related to agricultural water used during harvest and postharvest. This list does not include requirements for pre-harvest water, or those that are outside of Subpart E.

This list is not comprehensive. Resources in this list highlight data, science, or best practices that assist with FSMA Produce Safety Rule compliance. Additional resources are available in many of the topic areas.

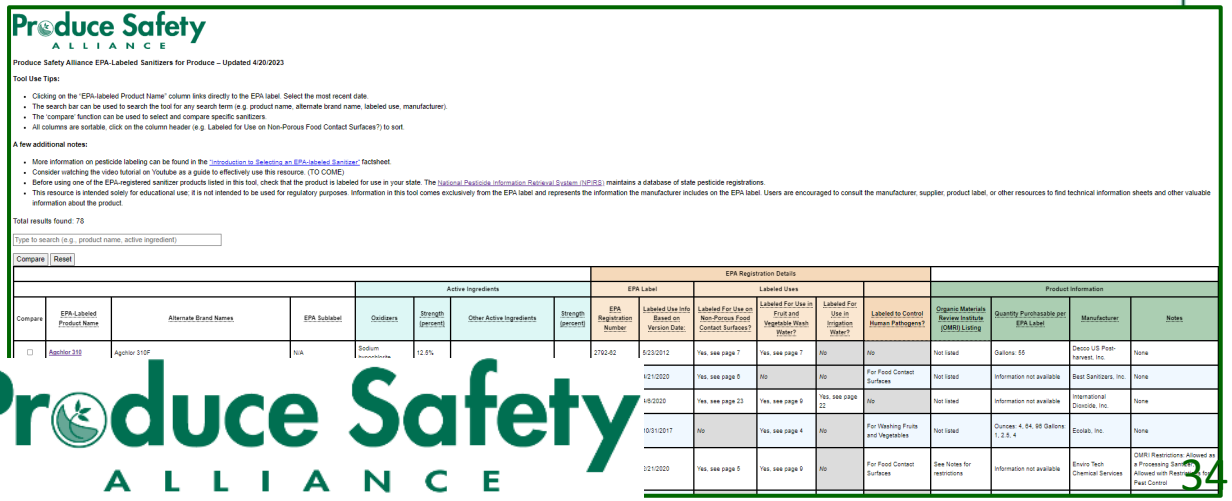
General information about regulatory requirements, compliance, and enforcement

- U.S. Food and Drug Administration 2015. Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption. (Final Rule).
  - *Includes codified language and expla*
- U.S. Food and Drug Administration 2019. …nsumption; Extension of Compliance Dates for Subpart E.

Produce Safety ALLIANCE

General Resources – Products in Progress

- Update of the Required Records document
  - Focus on supporting documentation requirements for harvest/postharvest agricultural water
- Decision tree for conducting an ag water systems inspection
- Resources related to Subpart E – Postharvest Water
  - List of resources to help farms and regulators prepare for inspections
- PSA EPA-labeled Sanitizers web tool and tutorial
  - The Excel resource has been adapted into a web tool
  - Currently incorporating focus group feedback


Produce Safety ALLIANCE

Produce Safety Alliance EPA-Labeled Sanitizers for Produce – Updated 4/20/2023

Tool Use Tips:

- Clicking on the "EPA-labeled Product Name" column links directly to the EPA label. Select the most recent date.
- The search bar can be used to search the tool for any search term (e.g. product name, alternate brand name, labeled use, manufacturer).
- The 'compare' function can be used to select and compare specific sanitizers.
- All columns are sortable, click on the column header (e.g. Labeled for Use on Non-Porous Food Contact Surfaces?) to sort.

A few additional notes:

- More information on pesticide labeling can be found in the "Introduction to Selecting an EPA-labeled Sanitizer" factsheet.
- Consider watching the video tutorial on Youtube as a guide to effectively use this resource. (TO COME)
- Before using one of the EPA-registered sanitizer products listed in this tool, check that the product is labeled for use in your state. The National Pesticide Information Retrieval System (NPIRS) maintains a database of state pesticide registrations.
- This resource is intended solely for educational use; it is not intended to be used for regulatory purposes. Information in this tool comes exclusively from the EPA label and represents the information the manufacturer includes on the EPA label. Users are encouraged to consult the manufacturer, supplier, product label, or other resources to find technical information sheets and other valuable information about the product.

Total results found: 78

Type to search (e.g., product name, active ingredient)

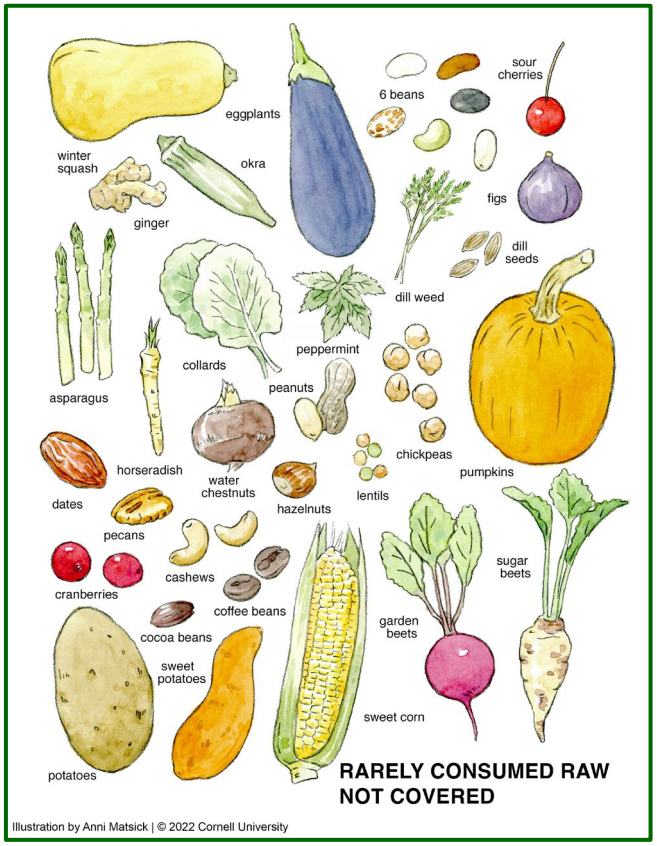
Compare | Reset

				Active Ingredients				EPA Registration Details							Product Information			
								EPA Label		Labeled Uses								
Compare	EPA-Labeled Product Name	Alternate Brand Names	EPA Sublabel	Oxidizers	Strength (percent)	Other Active Ingredients	Strength (percent)	EPA Registration Number	Labeled Use Info Based on Version Date:	Labeled For Use on Non-Porous Food Contact Surfaces?	Labeled For Use in Fruit and Vegetable Wash Water?	Labeled For Use in Irrigation Water?	Labeled to Control Human Pathogens?		Organic Materials Review Institute (OMRI) Listing	Quantity Purchasable per EPA Label	Manufacturer	Notes
☐	Agchlor 310	Agchlor 310F	N/A	Sodium	12.5%			2792-62	9/23/2012	Yes, see page 7	Yes, see page 7	No	No		Not listed	Gallons: 55	Desco US Post-harvest, Inc.	None
									4/21/2020	Yes, see page 6	No	No	For Food Contact Surfaces		Not listed	Information not available	Best Sanitizers, Inc.	None
									4/6/2020	Yes, see page 23	No	Yes, see page 23	No		Not listed	Information not available	International Dioxide, Inc.	None
									10/31/2017	No	Yes, see page 4	No	For Washing Fruits and Vegetables		Not listed	Ounces: 4, 64, 96 Gallons: 1, 2.5, 4	Ecolab, Inc.	None
									3/21/2020	Yes, see page 5	Yes, see page 9	No	For Food Contact Surfaces		See Notes for restrictions	Information not available	Enviro Tech Chemical Services	OMRI Restrictions: Allowed as a Processing Sanitizer. Allowed with Restrictions for Pest Control

Produce Safety ALLIANCE

Feedback Break

- Are there any additional resources
  that would help you during trainings? (chat)
- Do you need any additional resources to increase your knowledge base in any specific area? (chat)



Produce Safety ALLIANCE

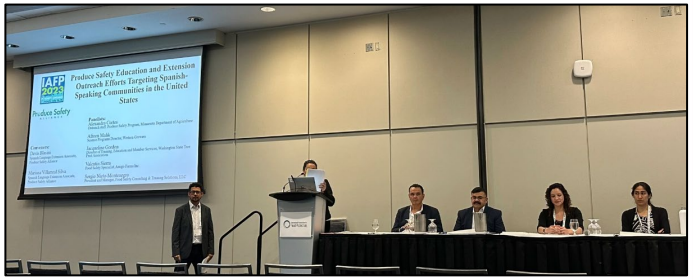
PSA Spanish-language Efforts

- Hosting domestic PSA GTs and TTTs in Spanish
  - Interested in collaboration to support participant recruitment and funding for manuals/certificates
  - PSA Team can be PSA Trainers - this requires coordinated collaboration, shared goals, and clear expectations
- Launch Online GT in Spanish in August
- Educators' call in Spanish

Produce Safety ALLIANCE

PSA Spanish-language Efforts

- Ensuring all PSA materials are available in Spanish
  - All resources published by the PSA
    - Traceability rule, subpart E changes, slides, etc.
  - Translation of FSMA PSR Preamble to Spanish
- A new podcast series in Spanish (next month)
- Roundtable at IAFP 2023 about “Produce Safety Education Efforts Targeting Spanish-Speaking Communities in the United States”



Produce Safety ALLIANCE

PSA Spanish-language International Updates

- Since 2022, the PSA has international training responsibilities
- Hosting international PSA GTs and TTTs
  - 3 GTs for Mayan communities in 2022
  - 14 international GTs for Onions Papaya, Berries, Mangoes, and Melons Growers throughout Mexico in 2023; 1 TTT for Mexican trainers in 2023
- Emphasis on capacity building by developing and mentoring PSA trainers
- New international objectives this year in the Caribbean, Central, and South America

Produce Safety ALLIANCE

PSA On the Horizon

- Appreciate all the updates from the PSA Team
- We are always working on new things, anticipating needs, and adjusting policy based on results
  - ToT application process is likely changing
  - Stretchy back pocket teaming with new materials
  - Preparing for final Subpart E
- Many questions were submitted asking about PSA GT Curriculum updates
  - Expected timeline for FDA to release Subpart E?
  - When will the updated curriculum be available? Plan for release?

Plan for PSA GT Curriculum Updates

- Updates to the PSA GT Curriculum will not begin until Subpart E is finalized (pre-harvest agricultural water)
  - Updates will be substantial, impacting every module; PSA GT Version 2.0
- PSA Trainers/Lead Trainers/ToTs must attend an update training
- An update training for previous PSA GT participants will be developed
  - Plan to offer online, remote, and in-person
  - PSA Trainers will be able to deliver it to growers/audiences
  - Expect growers will need substantial support to understand and implement Agricultural Water requirements

Produce Safety ALLIANCE

PSA Funding Timeline

- Currently, PSA only has funding until June 30, 2024
- Current state of government means it is a real possibility that the PSA could shut down, permanently
- FDA has said there will be a new cooperative agreement
  - But funding is at ~25% of what we need, so this is not PSA
- With the PSR changing, we believe there is a need for PSA
  - List goes beyond just the PSR changing, but hopefully you get the idea
- We welcome and appreciate people reaching out to their congress people and FDA if you believe our funding is needed
  - We have a fact sheet if you would like to see it with our budget needs

Produce Safety ALLIANCE

Feedback Break #2

- Do you have any questions… about anything? (chat)
- Are there things we can do to support you? (chat)
  - PSA GTs: Registering, hosting, policy issues
  - Professional development topics
  - Networking opportunities
  - Other

Produce Safety ALLIANCE

Thank you!

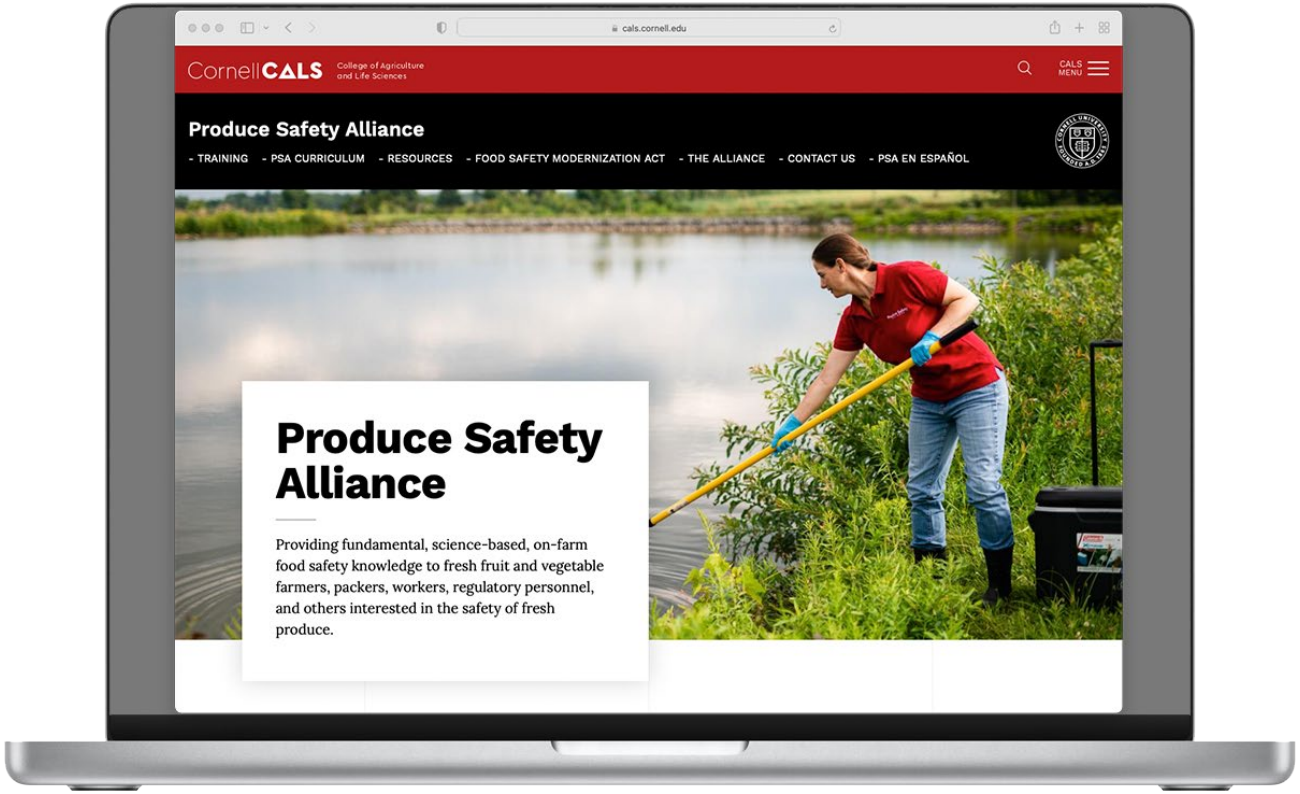
- For your time today and everyday
  - For engaging with the PSA
  - Striving to improve trainings and educational experiences
  - Supporting growers in novel and creative ways
- Always interested in your feedback!
  - Your input changes policies and PSA Team actions!
  - Keep it coming! We only get better through honest dialogue
- Hopeful we will be here after June!
  - But if not, we will still be thankful for you, your efforts, and many good things that were accomplished!

Produce Safety ALLIANCE

The PSA Website

English: producesafetyalliance.cornell.edu

Spanish: es.producesafetyalliance.cornell.edu

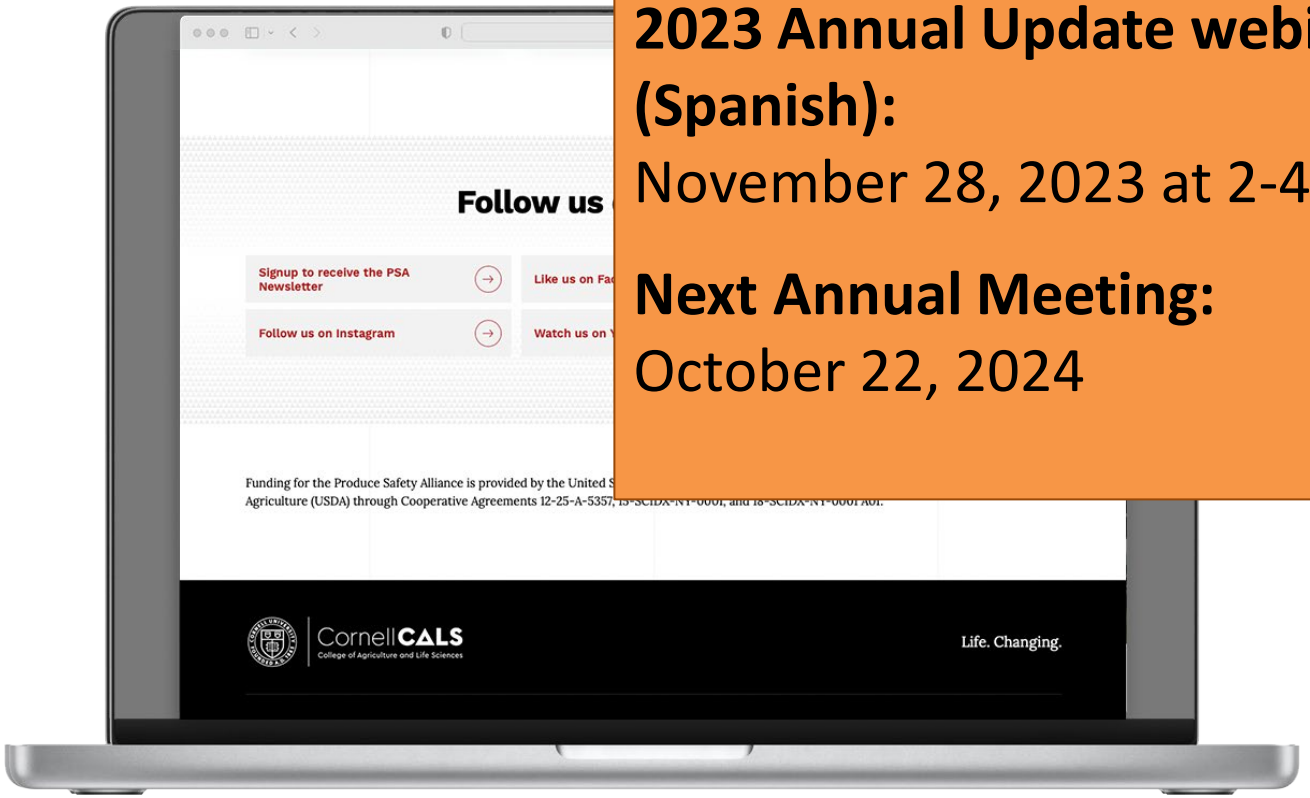


Produce Safety ALLIANCE

The PSA Website

English: producesafetyalliance.cornell.edu

Spanish: es.producesafetyalliance.cornell.edu



2023 Annual Update webinar (Spanish):

November 28, 2023 at 2-4pm ET

Next Annual Meeting:

October 22, 2024

Produce Safety ALLIANCE