



Southern Region Integrated Produce Safety Conference

October 29-30, 2019

Hotel Valencia

150 E Houston St.

San Antonio, TX

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Welcome to San Antonio, Texas and the second annual Southern Region Integrated Produce Safety Conference. Over the next two days, we will discuss Produce Safety Rule training, education, technical assistance, and inspections within the southern US. Our partners from the industry, trade organizations, non-profit organizations, universities, and government agencies will share efforts and discuss challenges and successes related to Produce Safety Rule outreach and inspection. We will also hear from FDA and the compost industry on Biological Soil Amendments of Animal Origin; LGMA on their process for establishing new water requirements; and the Indigenous Food and Agriculture Initiative on working with tribal governments and producers. We hope that you will take some time to review this book of abstracts. A special networking and poster reception is scheduled for Tuesday evening where the authors will be available to share the details of their projects with everyone. On Wednesday morning, our producers will share their thoughts on the On-Farm Readiness Review process and Produce Safety Rule inspection. We hope you will also join us Wednesday afternoon to see how Texans help Texans at the San Antonio Food Bank.



Kristin Woods, Ph.D.
Southeast Regional Extension Associate
Produce Safety Alliance



Richard De Los Santos
Director Texas Office Produce Safety
Texas Department of Agriculture

2019 Southern Regional Integrated Produce Safety Conference Planning Committee

Achyut Adhikari-Louisiana State University Ag Center

Denise Beuttenmuller-Food and Drug Administration

Maggie Brown-Georgia Department of Agriculture

Alex Castillo-Texas A&M University

Michelle Danyluk-University of Florida

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Trevor Gilbert-Food and Drug Administration

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Consumer Services

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Meghann Howard-Texas Department of Agriculture

Ravi Jadeja-Oklahoma State University

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2019 Southern Regional Integrated Produce Safety Conference Planning Committee

Lucy Love-North Carolina Department of Agriculture and Consumer Services

Fatemeh Malekian-Southern University Agricultural Land Campus

Susie Marshall-Texas Organic Farmers and Gardeners Association

Justin McConaghy-Oklahoma Department of Agriculture Food and Forestry

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Christy Smith-Alabama Department of Agriculture

Brendan St. John-Produce Food Safety Services

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Stuart Vermaak-Virginia Tech

Britton Walker-Mississippi Department of Agriculture

Kristin Woods-Auburn University

Annette Wszelaki-University of Tennessee

Veerachandra (Kranti) Yemmireddy-University of Texas Rio Grande Valley

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Southern Region Integrated Produce Safety Conference

October 29-30, 2019

Tuesday, October 29

Time	Session	Presenter(s)
<i>Morning Moderator: Billy Mitchell, National Farmer's Union</i>		
8:00 AM	Welcome and Introduction	Renée Goodrich Schneider, UF/Southern Center; Dan Hunter, Texas Department of Agriculture; Kristin Woods, Auburn
<u>State Departments of Agriculture</u>		
8:15 AM	Presentations from State Departments of Agriculture	Richard De Los Santos, TX Christy Smith, AL Mark Stoll, AR Scott McClure, FL Susan Alexander, GA Tyler Goodlett, KY Allison Dumas, LA Britton Walker, MS
9:45 AM	Break	
10:15 AM	Presentations from State Departments of Agriculture	Chris Harris, NC Justin McConaghy, OK Kelly Johnson, SC Mark Naifeh, TN Erik Bungo, VA
11:05 AM	Produce Safety Alliance Update	Kristin Woods, Auburn
11:35 AM	AFDO: Connecting and Collaborating	Brenda Morris, AFDO
11:45 AM	NASDA: Moving into the Next Phase of Produce Safety Farm Regulation	Jim Melvin, NASDA
11:55 AM	Lunch in the Rotunda	

Tuesday, October 29 (continued)

Time	Session	Presenter(s)
<i>Afternoon Moderator: Kristin Woods, Auburn</i>		
<u>Soil Amendments</u>		
1:00 PM	Stories from the Field: How the PSR has affected grower's farming decisions	Michael Hensley Harrod and Hensley Tomato Company, AR
1:10 PM	FDA's Current Thinking and an update on BSAOO	Dave Ingram, FDA-CFSAN
1:25 PM	Community Composting with Bokashi	Kate Jalcedo CompostQueens, TX
1:35 PM	Panel Q & A	Dave Ingram, FDA-CFSAN Kate Jalcedo, Compost Queens, TX Judith McGeary, Farm & Ranch Freedom Alliance
<u>Water Treatment</u>		
2:00 PM	Duct Tape and Super-Glue; a Pragmatic Approach to Shoring Up Ag-Water Standards and Metrics	Trevor Suslow, Produce Marketing Association
2:20 PM	Brief Comparison of Water Testing Requirements for various 3rd party audits	Billy Mitchell National Farmer's Union
2:30 PM	Panel Q & A	Trevor Suslow, Produce Marketing Association Diane Ducharme, FDA PSN
2:45 PM	Break	
3:15 PM	Water Treatment Presentation and Hands-On Activity	Laurel Dunn, UGA Chris Gunter, NCSU Laura Strawn, VT Annette Wszelaki, UT
<u>Tribal Education</u>		
4:15 PM	Native Nations & FSMA: Working with Tribal Governments & Tribal Food Producers in a Culturally Appropriate Way	Erin Parker Indigenous Food and Agriculture Initiative
5:00 PM	<i>Day 1 - Sessions End</i>	

Tuesday, October 29 (continued)

6:00-7:30 PM

Reception and Posters in the Rotunda

Wednesday, October 30

Time	Session	Presenter(s)
<i>Morning Moderator: Renée Goodrich-Schneider, UF/Southern Center</i>		
<u>National OFRR Programs Update</u>		
8:00 AM	National OFRR Metrics Analysis	Meredith Melendez Rutgers Cooperative Extension
8:30 AM	State OFRR Program Updates-Unique Experiences, Challenges, and Perspectives	Richard De Los Santos, TX Amanda Philyaw Perez, AR Lea Tapley, FL Elizabeth Stalvey, GA Lucy Love, NC Brooke Horton, SC Mark Naifeh, TN Anne Magee, VA
9:30 AM	Grower Experience with OFRR Panel Discussion Moderator-Richard De Los Santos, TDA	Brian Wilson Old South Blueberries, AL Mayra Rodriguez Wonderful Citrus, TX Jed Murray MO Produce, TX Eduardo De La Fuente J&D Produce-TX
10:00 AM	Break	
10:30 AM	NonCAP and International OFRR Experience	Trevor Gilbert and Diane Ducharme, FDA PSN
11:00 AM	Grower Experience (FSMA-PSR) Panel Discussion Moderators-Billy Mitchell, National Farmer's Union and Allison Dumas, LA Department of Agriculture & Forestry	Brian Wilson Old South Blueberries, AL Michael Hensley Harrod and Hensley Tomato Company, AR Jed Murray MO Produce, TX Eduardo De La Fuente J&D Produce, TX
12:15 PM	Adjourn	
Lunch on your own		
1:00-4:00 PM Farm Tour (Optional)		

STATE UPDATE REPORTS

State Update Report

Texas Department of Agriculture

Program Area	Responsible Party
1.) PSA Grower Training	TDA coordinates with Texas AgriLife Extension – TOFGA, FARFA Other groups
<u>Status Update</u>	TDA Outreach Specialist work closely with producers to identify PSA Grower Training needs. TDA works with Texas AgriLife Extension to select a date and location for the PSA Grower Training. TDA staff conduct module 1.
2.) OFRR	Texas Department of Agriculture
<u>Status Update</u>	TDA conducts On Farm Consultations. Initially opened to farms \$500K and up in sales to prepare for assessments. 12 On Farm Consultations completed however in September we opened up On Farm Consultations to all farms above \$25K.
3.) Inspection	Texas Department of Agriculture
<u>Status Update</u>	Assessments have started
4.) State Rule Making	Texas Department of Agriculture
<u>Status Update</u>	Complete
5.) Verification and Validation	Texas
<u>Status Update</u>	Verifying and validating exemption of all farms growing covered produce

State Update Report

Texas Department of Agriculture



State Update Report

Texas Department of Agriculture

A. Metrics of quantitative success:

Number of trainings provided?	37 PSA Grower trainings + 3 Train the trainer = 40 total
Number of growers reached?	79 TTT course participants (3 courses) and 662 GR course participants (37 courses) as of the September Training data pull.

Note that the 662 participants are not all growers. There are many consultants, extension, regulators, etc. that take the GT course. It's also not 662 farms since some farms send more than one person to training. Our records indicate that we have reached 1070 growers through farm visits and phone calls.

Development of materials	Posters, Clipboards, flashlights, Produce Safety Trifold, "What to Expect with an On-Farm Consultation" Trifold, "What to Expect with an Assessment" Trifold
Publication	AG Mag, Texas Farm Bureau, Texas International Produce Association
Presentations given at educational event	Farmers Market Conferences, Different Agriculture conferences, Fruit Growers Conferences, Battle Ground to Breaking Ground, Department of Labor Conference

B. Do you have any specific anecdotes/stories that you'd like to share? Please include quotes, if possible, from growers/producers since this is helpful in engaging others with your work.

We had a grower who stated that our On-Farm Consultation and required corrective actions helped prepare them for their Third-Party Audit.

Growers participating in our On-Farm Consultations regularly comment on how helpful the visit was how it helps them improve produce safety and minimize the risks.

State Update Report

Alabama Department of Agriculture

Program Area	Responsible Party
1.) CAP Project Designation	Dept of Agriculture & Industries
<u>Status Update</u>	Alabama is both competition A and B. We have a subaward in place with Auburn University to help with outreach and education.
2.) PSA Grower Training	Auburn University Extension
<u>Status Update</u>	We have conducted 17 grower trainings to date and have planned 4 in the fall of 2019. Grower training are hosted by Auburn University and Alabama Cooperative Extension agents who assist in teaching modules. Our PSA Trainings are a one day, 8 hour course.
3.) OFRR	Dept. of Agriculture and Auburn as support staff
<u>Status Update</u>	We have completed 12 OFRRs. 7 of those were very small/ small farms and 6 were large farms. Farmers are able to sign up online and/or mail in form to request OFRR and we also call farms to attempt to set up OFRR prior to inspections. ADAI inspectors are the lead for the OFRR with extension staff being secondary assessors. All information gathered during OFRRs are confidential and we leave all notes with the farmer.
4.) Inspection	Dept. of Agriculture
<u>Status Update</u>	We have completed 11 inspections so far with another 8 on the schedule. Our goal was to complete 16 by end of 2019 but will surpass that goal if scheduled inspections go as planned.
5.) State Rule Making	Dept. of Agriculture
<u>Status Update</u>	We have state authority to do farm inspections. Alabama is adopting rule by reference.

State Update Report

Alabama Department of Agriculture

A. Metrics of quantitative success:

Number of trainings provided?

Grower Trainings - 17 trainings completd, 214 trained

Tran the Trainer – 1 Training completd, 40 trained
PCQI Training- estimated 120 trained- do not have current total

Number of growers reached?

Mailing Fliers – 473, PSA Grower Trainings- 214, Phone calls - 278

Number of packers reached?

12- Reached through grower trainings, PCQI training and phone calls.

Development of materials

Flyers developed to advertise PSA trainings and rak cards handed out with FSMA/ PSR information on cards.

Presentations given at educational event

PSR Presentations given at Regional Extension horticulture meetings, Fruit & Vegetable Grower Conferences, Commodity Educational Meetings, USDA/ Farm Service Agency farmer meetings, NASDA Webinar.



State Update Report

Alabama Department of Agriculture

B. Do you have any specific anecdotes/stories that you'd like to share? Please include quotes, if possible, from growers/producers since this is helpful in engaging others with your work.

AL Grower – The OFRR provided helpful tips to all workers present for the OFRR. The extra time taken with my employees helped calm our fears of ‘government involvement’ and we see ADAI as more of a friend and here to help us each step of the way working toward our FSMA inspection next year.

PSA Attendee- Class was very well organized and very well instructed. I left very confident that I was better equipped to establish an updated food safety plan along with additional policies to ensure my farm was up to date and ready for inspections.



State Update Report

Arkansas Department of Agriculture

Program Area	Responsible Party
1.) CAP Project Designation	Arkansas Department of Agriculture
<u>Status Update</u>	Arkansas is a competition A and B state. We are a Tier 4 program that began in 2016. We have one subaward in place with the University of Arkansas Cooperative Extension Service to help with education and outreach activities. Dept. of Ag. staff include one program manager, two inspectors, and one administrative assistant.
2.) PSA Grower Training	University of Arkansas Cooperative Extension Service
<u>Status Update</u>	18 grower trainings have been completed to date. We currently have one training scheduled for winter 2019, and another three to follow in spring of 2020. We're hoping that by scheduling in this way, more growers will be present because for most it will be their off-season. The trainings are typically a one-day, 8-hour course. Occasionally, UA Extension will host a two-day workshop series with the first day being the PSA grower training, and the second day being a supplemental course.
3.) OFRR	University of Arkansas Cooperative Extension Service
<u>Status Update</u>	10 OFRRs have been completed, with 9 being large farms and 1 being a small farm. The University of Arkansas Cooperative Extension Service personnel are the sole assessors to conduct the OFRRs in Arkansas; ADA staff do not attend. Growers are asked directly by both ADA staff during farm visits, and UA Extension staff during grower trainings if they'd be interested in receiving an OFRR prior to inspection. ADA passes on the OFRR requests that they receive to UA Extension. If growers want an OFRR, they are contacted by UA Extension for scheduling. All OFRRs are confidential, and all notes are left with the growers.

State Update Report

Arkansas Department of Agriculture

4.) Inspection

Arkansas Department of Agriculture

Status Update

We have completed 11 inspections so far with another 8 on the schedule. Our goal was to complete 16 by end of 2019 but will surpass that goal if scheduled inspections go as planned.

5.) State Rule Making

Arkansas Department of Agriculture

Status Update

We are still in the rule-making process. We have a drafted rule that is currently being reviewed by our in-house legal department for approval. Our current inspection authority is through the Arkansas Plant Act of 1917.

6.) Farm Visits

Arkansas Department of Agriculture

Status Update

ADA produce safety staff conduct farm visits with growers. These visits are completed prior to OFRRs, inspections, and sometimes PSA grower trainings, to introduce ourselves and provide information. We use these farm visits to build our inventory and classify farms into their appropriate categories. So far, we have completed 52 of these visits.



State Update Report

Arkansas Department of Agriculture

A. Metrics of quantitative success:

Number of trainings provided?	18 PSA Grower Trainings (2017-2019); 2018/2019 Reporting Period - 12 Alternative Curriculum Trainings or Produce Safety Presentations; 3 Field Days; 3 Staffed Displays.
Number of growers reached?	270 PSA Growers (2017-2019) ; 10 OFRRs with 57 Farmers/Staff Present
Number of packers reached?	2 Produce Packing Sheds, 5 Packing Crew Member
Development of materials	3 Educational Bulletins/Handouts; 7 County Extension PSR Office Displays.
Presentations given at educational event	2018/2019 Reporting Year - 500 Educational Participants at 12 Educational Events (i.e. Arkansas Farm Bureau, UA at Pine Bluff Local Foods Program, Saint Joseph's Incubator Farm Program, and more); 45 Field Day Participants (Post-harvest handling); 63 One-on-One Consultations by email or phone; 84 visitors at staffed displays; 2471 Facebook Likes or Shares



State Update Report

Arkansas Department of Agriculture

B. Do you have any specific anecdotes/stories that you'd like to share? Please include quotes, if possible, from growers/producers since this is helpful in engaging others with your work.

There has been a recurring theme that we've noticed from our growers during these first inspections: they nearly always feel that they've learned something new at the end of the inspection. We've been told by more than one grower that our "educate while we regulate" approach is having a positive impact. The bridge between on-farm practices and food safety risks has connected for many growers through education and explanations that they receive from us. Rather than simply receiving a score at the end of the day, we're helping them reach an understanding of the link between their practices and the risks associated. Reaching that "ah-ha" moment with our growers has been very satisfying and fulfilling for the team; we feel that we're doing our jobs when we achieve this type of response.

C. Other information you would like to share?

ADA website: www.aad.arkansas.gov/produce-safety-program
UA Extension website: www.uaex.edu/arkansas-produce-safety
UA Local, Regional and Safe Foods Facebook: <https://www.facebook.com/localfoodsUAExtension/>

State Update Report

Florida Department of Agriculture

Program Area	Responsible Party
1.) CAP Project Designation <u>Status Update</u>	Florida Department of Agriculture Florida, as part of our CAP funds partners with the the University of Florida to promote education and outreach, On Farm Readiness Reviews, and scheduling of PSA Grower Trainings. The Division of Fruit and vegetables is responsible for the regulatory inspections.
2.) PSA Grower Training <u>Status Update</u>	UF/IFAS in collaboration with the Florida Department of Agriculture 58 Grower Trainings to date, reaching about 1,500 individuals
3.) OFRR <u>Status Update</u>	UFIFAS in collaboration with the Florida Department of Agriculture 53 OFRR’s to date
4.) Inspection <u>Status Update</u>	Florida Department of Agriculture 14 Inspections completed to date.
5.) State Rule Making <u>Status Update</u>	None Florida enforces the rule under credentialing from the FDA.



State Update Report
Florida Department of Agriculture

A. Metrics of quantitative success:

Number of trainings provided?	58 PSA Grower Trainings 5 PSA TTT 6 OFRR Trainings 3 Beyond Basic Trainings
Number of growers & packers reached?	1500 to include growers and packers
Development of materials	Development of materials are relevant to the needs at the time, pertinent to education and outreach, rule enforcement, trainings etc.
Publications	Same as development of materials.
Presentations given at educational event	Varies, not all education events include presentations. Past presentations have included overview of FSMA and PSR, Educational and outreach opportunities such as OFRRs, and commodity tailored presentations on the Produce Safety Rule.



B. Do you have any specific anecdotes/stories that you’d like to share? Please include quotes, if possible, from growers/producers since this is helpful in engaging others with your work.

Florida growers are very receptive of our efforts to educate them on the rule and its enforcement. Regardless of their support for or against the rule, we have not had any pushback during our interaction. We feel this is because Florida already had in place a robust food safety environment for years

State Update Report

Georgia Department of Agriculture

Program Area	Responsible Party
1.) CAP Project Designation	Georgia Department of Agriculture Farm Safety Program
<u>Status Update</u>	2 Tier State Composition A/B The Georgia Department of Agriculture, Farm Safety Program handles all Produce Safety Alliance Grower Trainings and On Farm Readiness Reviews. We have a Sub Award with the Univeristy of Georgia Extension to help with our PSA Grower Trainings and other supplemental information and help when needed.
2.) PSA Grower Training	Georgia Department of Agriculture and UGA Extension
<u>Status Update</u>	Our Produce Safety Alliance Grower Trainings are organized and hosted by the Georgia Department of Agriculture, Farm Safety Program. Our Sub Award is with the University of Georgia Extension named Dr. Dunn and she assists in training with our Produce Safety Alliance Grower Trainings.
3.) OFRR	Georgia Department of Agriculture
<u>Status Update</u>	33 OFRR Conducted
4.) Inspection	Georgia Department of Agriculture
<u>Status Update</u>	19 Inspections have been conducted as of the end of September. Our inspections began June 17th 2019. All inspections are being handled by the Georgia Department of Agriculture, Farm Safety Program Inspectors.
5.) State Rule Making	Georgia Department of Agriculture
<u>Status Update</u>	The Georgia Department of Agriculture adopted the Produce Safety Rule by reference on May 15th 2019.

State Update Report

Georgia Department of Agriculture

A. Metrics of quantitative success:

Number of trainings provided?	29 PSA Grower Trainings
Number of growers reached?	Approximately 900 growers reached
Number of packers reached?	Approximately 250 packers reached
Development of materials	<p>On Farm Readiness Review Survey, Brochures, Rack Cards, Magnets with compliance dates, Promotional items such as kitchen scrub brushes, cutting boards, hand sanitizers, produce stress balls.</p> <p>Sub Award with UGA Extension: Our Sub Award with UGA Extension, Dr. Dunn, has created a Service Animal Document. Dr. Dunn with UGA Extension has also developed “On Farm Five Videos” which are five minute produce videos. UGA Extension has also created Produce Safety Worker Training Flipcharts. Under UGA Extension we are also implementing the Mobile Unit for Disinfection.</p>



State Update Report

Georgia Department of Agriculture

Publication

Sub Award with UGA Extension:
Our Sub Award with UGA Extension, Dr. Dunn, has created a Service Animal Document. Dr. Dunn with UGA Extension has also developed “On Farm Five Videos” which are five minute produce videos. UGA Extension has also created Produce Safety Worker Training Flipcharts.

Presentations given at educational event

2018 and 2019 Southeast Regional Fruit and Vegetable Conference, UGA Extension Production Meetings in numerous counties, Georgia Blueberry Growers Association, Georgia Watermelon Association, several other presentations with other commodity groups, several roundtable discussions.



State Update Report

Georgia Department of Agriculture

B. Do you have any specific anecdotes/stories that you'd like to share? Please include quotes, if possible, from growers/producers since this is helpful in engaging others with your work.

This is a quote from a grower who completed an On Farm Readiness Review:

“Thank you very much for conducting the OFRR this past week at two of the operations I work with. We both found the meetings extremely valuable and provided great insight as to what areas at our orchards and packinghouse could use improvements and revisions. The meeting gave us the opportunity to ask questions and gain clarity on some concerns we had in regard to the part 112 rules, which aren't always easy to understand. Even though both of our operations undergo third party food safety audits on an annual basis, the meeting was still eye opening and made us realize the importance of being “inspection-ready” year-round, not just for our audits.”



State Update Report

Kentucky Department of Agriculture

Program Area	Responsible Party
1.) CAP Project Designation	Kentucky Department of Agriculture
<u>Status Update</u>	The KDA is responsible for the CAP Project Designation and Implementation throughout Kentucky.
2.) PSA Grower Training	University of Kentucky Extension
<u>Status Update</u>	PSA Grower Trainings have been scheduled and taught by our counterparts with University of Kentucky Extension. Four of our team members are PSA Trainer Certified, with three being Lead Trainers. We are planning to host two PSA trainings for our growers in November.
3.) OFRR	KDA and UK Extension
<u>Status Update</u>	We have completed 17 OFRRs to date and have hosted 3 mock OFRRs or other type of OFRR trainings on KY Farms. The OFRRs are completed by a member of UK's Produce Safety Extension members and a member of our KDA Produce Safety Team.
4.) Inspection	Kentucky Department of Agriculture
<u>Status Update</u>	We have completed 3 inspections in 2019 on our all large covered farms within the state. The inspections have gone well, with the biggest issues being documentation of employee training and pre & post harvest sanitation practices.
5.) State Rule Making	Kentucky Department of Agriculture
<u>Status Update</u>	Kentucky is currently implementing the Produce Safety Rule under FDA authority. We have been working with state representatives and have received advising from other states in preparation to pass state authority during the KY Spring 2020 General Session.

State Update Report

Kentucky Department of Agriculture

6.) Other

KDA, UK Extension, Kentucky Food Safety Branch

Status Update

Various outreach events have been held or attended since the beginning of the program, this includes Farm Visits, Attending and Speaking at Conferences, Listening Sessions with Growers, Meetings with Extension Agents, Attending and Speaking at Field Days, Phone Calls and Emails with Growers.

A. Metrics of quantitative success:

Number of trainings provided?

PSA Grower Training - 13

Number of growers reached?

PSA Grower Training Attendees - 300

Development of materials

We have developed several materials to help educate our growers on different parts of the Rule. These include a Farmer's Market Fact Sheet on FSMA, Qualified Exemption Applications, educational brochures, GAP/FSMA Differences and more. We have also created several methods of collecting farm inventory data in the form of Survey cards, an online portal, and handouts that explain how the PSR relates to KY farmers.

Publication

We have worked with UK Extension to publish several educational materials that pertain to Produce Safety that can be easily accessed on the UK Center for Crop Diversification page.

State Update Report

Kentucky Department of Agriculture

Presentations given at educational event

Our team has given presentations at a wide array of educational events including: Kentucky Fruit & Vegetable Conference, Organic Association of Kentucky Conference, Kentucky RRT meetings, Regional and Local Farmers Market Vendor Meetings, UK Ag Water Quality Field Day, Farm Bureau Meetings, Produce Auctions, and more. Over the course of our program's existence we would estimate approximately 30 presentations at educational events, not counting impromptu opportunities to speak with growers.

B. Do you have any specific anecdotes/stories that you'd like to share? Please include quotes, if possible, from growers/producers since this is helpful in engaging others with your work.

The message of "Education before and while we Regulate" has resonated well with growers throughout Kentucky. The main quote that I like to share with growers is "we are not here to find things that will shut your operation down, rather we are here to educate on ways to mitigate risks that will help keep Kentucky producing a wholesome, safe product for consumers."

State Update Report

Louisiana Department of Agriculture

Program Area	Responsible Party
1.) CAP Project Designation	Ag Department
<u>Status Update</u>	Louisiana Department of Agriculture & Forestry (LDAF) is the grantee for our state with subawards for Louisiana State University Agricultural Center and Southern University Agricultural Land-Grant Campus.
2.) PSA Grower Training	Extension
<u>Status Update</u>	Louisiana has 3 lead trainers – one with Southern University, one with LSU and another with a NGO. Southern and LSU take the lead on hosting trainings around the state. We aim to host at a minimum 3 to 4 trainings every year around the state. Trainers for these trainings typically work for the two universities or LDAF. Occasionally, trainers associated with various NGOs in the state will assist with training. LDAF and the two universities have strong partnerships with various NGOs around the state. These partnerships are leveraged to help reach growers around the state.
3.) OFRR	Ag Department/Extension
<u>Status Update</u>	LDAF takes the lead on coordinating OFRRs. OFRRs are conducted by a combination of staff from LDAF and the two universities depending on availability. LDAF also hosted an OFRR training attended by over 25 state regulators and educators in April 2019. Four OFRRs have been conducted in the state to date. Training and records have been the areas needing improvement on each of the OFRRs conducted.

State Update Report
Louisiana Department of Agriculture

4.) Inspection	Ag Department
<u>Status Update</u>	LDAF has 2 inspectors that conduct inspections in the state. Both inspectors have attended mandatory training through FDA. LDAF has a training curriculum established to ensure that inspectors are continuously educated about new developments with the Produce Safety Rule. Louisiana began conducting inspections in September 2019 of large farms and have conducted 2 inspections thus far.
5.) State Rule Making	Ag Department
<u>Status Update</u>	The Louisiana legislature passed legislation in 2017 giving LDAF authority to conduct inspections in the state.

A. Metrics of quantitative success:

Number of trainings provided?	PSA Grower Training – 26 with 400 participants PCQI – 8 with 180 participants OFRR – 1 with 25 participants PSA Train the Trainer – 3 with 120 participants
Number of growers reached?	Growers have been reached not only through training but also through outreach events. Some of the outreach events attended have included the Louisiana Ag Expo, the Louisiana Farm Bureau Federation Annual Meeting, the Louisiana Farm to School Conference, the Southern University Small Farmer’s Conference, the Louisiana Fruit and Vegetable Growers Association Meeting and various field days around the state. It is estimated that we have reach an additional 2000 people at these events combined.

State Update Report

Louisiana Department of Agriculture

Development of materials

Several fact sheets have been assimilated by the two universities for stakeholders in the state. The topics covered by the fact sheets include: wash water and produce safety, service animals and produce farms, guide to food grade sanitizers, a comparison of the FSMA Produce Safety Rule and Good Agricultural Practices, water sampling techniques, post-harvest sanitation, and handling and storage of produce. LDAF has also created handouts for growers about what to expect of a produce safety inspection as well as OFRRs.

The LSU Ag Center in conjunction with Washington State University and the Washington Organic Recycling Council created an on-farm composting operator training and shared information about how the Produce Safety Rule may impact the use of biological soil amendments of animal origin.



State Update Report

Louisiana Department of Agriculture

Publication

Over 30 magazine or extension publications have resulted from the work done by the team in Louisiana. These publications have been on various topics related to produce safety and the work being done as a result of this grant program. The team's work has also been featured on two tv news segments. The news segments highlighted the ongoing work of the team to educate the produce growers of the state about the Produce Safety Rule and particularly the stakeholder meetings held by LDAF in September and October 2018. The team is also using their various social media channels to provide outreach and education to the farming community in Louisiana.

B. Do you have any specific anecdotes/stories that you'd like to share? Please include quotes, if possible, from growers/producers since this is helpful in engaging others with your work.

Participants polled following PSA Grower Training and the following results were found: 90% had improved their on-farm food safety practices, 68% of the growers who went through this course started keeping on-farm records, 46% performed workers health and hygiene training and 90% shared their increase in knowledge to other growers and producers.

Quote from a grower training participant: "The information shared was absolutely necessary and the presenters did a fantastic job"



State Update Report

Mississippi Department of Agriculture

Program Area	Responsible Party
1.) CAP Project Designation	Mississippi Department of Agriculture and Commerce
<u>Status Update</u>	We are into year 2 of our CAP project in MS. With MS being one of the last states to receive CAP funding we hit the ground running last year. We were able to totally establish the Mississippi Department of Ag and Commerce Produce Safety division as well as complete the first year of inspections, outreach, OFRR, and many other things.
2.) PSA Grower Training	Ex: Ag or Extension The PSA Trainings are hosted by our sub-awardees, Mississippi State University and Alcorn State University Extension
<u>Status Update</u>	Currently we have two lead trainers both from MSU extension, but we are working towards having one lead trainer from ASU Extension and one person from MDAC.
3.) OFRR	Mississippi Department of Ag & Commerce
<u>Status Update</u>	We have completed 6 OFRR's over the 2019 year with several farms choosing to waive their exemption and request OFRRs and inspections. Overall the feedback from growers who have received OFRRs is that it was a fantastic experience that gave them peace of mind that they were headed in the right direction with regards to the FSMA requirements on their operation.
4.) Inspection	Mississippi Department of Ag & Commerce
<u>Status Update</u>	As of 2019 we have completed 7 inspections on large farms all of which have also had follow up inspections to ensure improvements were made if necessary.

State Update Report

Mississippi Department of Agriculture

5.) State Rule Making

Mississippi Department of Ag and Commerce

Status Update

The produce safety rule was adopted by reference into MS state law back in March of 2018. No changes have been made to the law since March of 2018



State Update Report
Mississippi Department of Agriculture

A. Metrics of quantitative success:

Number of trainings provided?	1 PSA Train-the- Trainer 6 PSA Grower Trainings
Number of growers reached?	207 growers reached total Our growers are reached in a multitude of ways from farm visits, to farmers market meetings, reaching out through social media and many more.
Number of packers reached?	Due to the fact the majority of our farms are small Mom & Pop operations, most of them pack their own produce.
Publication	MDAC has created around 5 publications where our subawards have created around 7
Presentations given at educational event	At least 60 presentations given Britton Walker, our outreach coordinator, along with our Sub-awardees give presentations on the basics of the FSMA Produce Safety Rule at a multitude of different events, field days, farmers market vendor meetings, etc.



State Update Report

North Carolina Department of Agriculture

Program Area	Responsible Party
1.) CAP Project Designation <u>Status Update</u>	North Carolina Department of Agriculture and Consumer Services CAP A/B
2.) PSA Grower Training <u>Status Update</u>	North Carolina State University Extension PSA Grower Trainings have been scheduled and taught by our NC State University Extension Agents. Two of our team members are PSA Trainer Certified, with one being a Lead Trainer. We also have a team member going through the training course in the upcoming months. PSA Grower Trainings have been provided to specific groups such as our Retail Industry Stakeholders, Soil and Water Conservation Division Field Agents, North Carolina State University Extension Agents, and Non-profit Food Bank Organizations that handle fresh produce. We are working with statewide school systems to offer a PSA Growers Training specifically for FFA and horticulture teachers utilizing school gardens. Trainings in Spanish have been offered periodically across the state.
3.) OFRR <u>Status Update</u>	NCDA&CS and North Carolina State University Extension We have completed 20 OFRRs to date and hosted 5 educational OFRR trainings including Mock OFRRs and NASDA OFRR Trainings. The OFRRs are completed by a member of North Carolina State University Extension and a member of our NCDA&CS Produce Safety Team. OFRRs are available to any size farm even if they are Qualified Exempt or not covered based on sales.

State Update Report

North Carolina Department of Agriculture

4.) Inspection

North Carolina Department of Agriculture and Consumer Services

Status Update

We have completed 9 inspections, with 2 scheduled beyond 9/30/19. The inspections have gone well, with reoccurring discussion points related to employee training, harvest practices, and equipment sanitation.

5.) State Rule Making

North Carolina Department of Agriculture and Consumer Services

Status Update

North Carolina adopted the Produce Safety Rule into our Administrative Code in 2018

6.) Other

North Carolina Department of Agriculture and Consumer Services

Status Update

Various outreach events have been held or attended since the beginning of the program, this includes Farm Visits, Attending and Speaking at Conferences, Listening Sessions with Growers, Meetings with Extension Agents, Attending and Speaking at Field Days, Phone Calls and Emails with Growers



State Update Report

North Carolina Department of Agriculture

A. Metrics of quantitative success:

Number of trainings provided?

PSA Grower Training - 33

Number of growers reached?

PSA Grower Training Attendees - 566

Number of packers reached?

We have developed a Produce Farmer Green Folder – that includes an OFRR request form, an open letter to the Produce Industry about OFRRs, a What to Expect from an OFRR document, a What to Expect from an Initial Produce Farm Inspection document as well as the CFR 21 Part 112 and the FDA’s FSMA Coverage Flowchart. We have also created Farm Inventory Verification documents, Compliance Call documents, and share materials from our Extension partners. Educational produce safety modules have been developed for display during field day and training events.

Publication

We have worked with our Department’s Public Affairs division to utilize their Ag Review Publication and included an article about On Farm Readiness Reviews, as well as use of the Department’s Facebook page to encourage growers to participate in On Farm Readiness Reviews.



State Update Report

North Carolina Department of Agriculture

Presentations given at educational event

Our team has given presentations at various educational events whether it be Conferences (Winter Vegetable Conference, NC Produce Professionals Conference, SE Vegetable & Fruit Expo), for college classes (Food Law, Horticultural Science), for Commodity Association meetings (Tomato Association, Greenhouse Vegetable Growers Association), Farm Bureau Member meetings, and at Research Stations for Field Days (Apple & Tomato Field Day, Blackberry Field Day, Peach Field Day, Mountain RS Field Day). Over the course of our program's existence we would estimate approximately 30 presentations at educational events, not counting impromptu opportunities to speak with growers.

B. Do you have any specific anecdotes/stories that you'd like to share? Please include quotes, if possible, from growers/producers since this is helpful in engaging others with your work.

"We found value in the OFRR process; You are welcome to visit our farm at any time for educational purposes or an inspection." NC Produce Grower

C. Other information you would like to share?

We look forward to future produce safety collaborations with our State Counterparts, Federal Supporters, and the Produce Community.

A special project our team has been working on is a collaboration between Research Stations across the state and our Produce Safety Program. We have worked to outfit several of the stations with video conferencing equipment to be able to share information with growers from the mountains to the coast. We have also begun upfitting new packhouse buildings on two Research Stations with equipment used for future cleaning and sanitation trainings which will be paired with water system trainings. Along with the permanent packhouses, we have purchased and are in the process of outfitting a mobile trailer that will be used to conduct packhouse sanitation trainings and sanitary equipment design options across the state.

State Update Report

Oklahoma Department of Agriculture

Program Area	Responsible Party
1.) CAP Project Designation <u>Status Update</u>	Ag Department Oklahoma Department of Agriculture, Food, and Forestry Awarded competition A/B
2.) PSA Grower Training <u>Status Update</u>	Ag or Extension Oklahoma State University Overall class rating of 4.8/5
3.) OFRR <u>Status Update</u>	ODAFF and OSU Farms that have been audited (GAP or Primus) are much more ready for inspection than those that have not had any audits.
4.) Inspection <u>Status Update</u>	ODAFF We have completed 2 inspections. The common deficiency has been a lack of signatures proving that management reviewed records.
5.) State Rule Making <u>Status Update</u>	ODAFF Rules were adopted in 2017. State authority was given to ODAFF in 2014.



State Update Report

Oklahoma Department of Agriculture

A. Metrics of quantitative success:

Number of trainings provided?	19
Number of growers reached?	301
Number of packers reached?	8
Development of materials	5: Guide for Harmonized GAP and PSR, Food fraud plan, food defense plan, Excel Workbook for determining financial exemptions, coverage decision tree
Publication	1
Presentations given at educational event	18

B. Do you have any specific anecdotes/stories that you'd like to share? Please include quotes, if possible, from growers/producers since this is helpful in engaging others with your work.

During a PSA class in the section about flooding, a farmer reported increased understanding of risks associated with and the need to consider potential contamination scenarios.



State Update Report

South Carolina Department of Agriculture

Program Area	Responsible Party
1.) CAP Project Designation	SC Department of Ag
<u>Status Update</u>	Our state is both competition A and B. We have two subawards in place to help with outreach, one with Clemson Extension and the other with Carolina Farm Stewardship Association.
2.) PSA Grower Training	SC Department of Ag, Clemson Extension, and Carolina Farm Stewardship Association
<u>Status Update</u>	So far we have completed a total of 19 grower trainings, and our plan going forward is to schedule at least one a month. The grower trainings are hosted by SCDA with Clemson Extension and Carolina Farm Stewardship Association assisting in teaching modules. Our trainings are a one day, 7-hour course.
3.) OFRR	SC Department of Ag with Assistance from Clemson Extension and Carolina Farm Stewardship Association
<u>Status Update</u>	13 OFRRs have been completed. 12 of those were large farms and one of them was a small farm. SCDA outreach personnel are always the lead assessor for the OFRR and either Clemson Extension or Carolina Farm Stewardship personnel are the secondary assessor. We do not allow our inspectors to perform OFRRs. We have an online portal where farmers can sign up for an OFRR. We have OFRR sign up sheets at all the grower trainings. We also call farms directly to determine if they want to have an OFRR prior to an inspection. All of our OFRRs are confidential and all notes are left with the farmer.
4.) Inspection	SC Department of Ag
<u>Status Update</u>	We have completed 20 inspections so far with another 1 on the schedule. Our goal was to complete 20 by the end of 2019.

State Update Report

South Carolina Department of Agriculture

5.) State Rule Making SC Department of Ag

Status Update

We have full state authority to do Produce Safety Rule inspections. Our legislation, the SC Produce Safety Act, was passed in May 2017.

6.) Other SC Department of Ag

Status Update

SCDA has created an exemption application process where farmers are only considered exempt if they apply and are approved for an exemption. So far we have had 87 farms apply for an exemption. When they are approved for an exemption they receive a certificate that is good for one year and a packet of information about the records they need to keep and other requirements for the exemption they fall under. The exemption application includes both rule exclusions(rarely consumed raw, less than \$25K, personal consumption) and exemptions (qualified and processing). We are in the process of getting the exemption application program online and tied into WINWAM.



State Update Report

South Carolina Department of Agriculture

A. Metrics of quantitative success:

Number of trainings provided?	<p>Grower Trainings – 19 Trainings Completed, 281 Trained</p> <p>Train-the-Trainer – 1 Training Completed, 20 Trained</p>
Number of growers reached?	<p>Email Lists-606, PSA Grower Trainings- 281, Phone Calls-486, Expos/Conferences-450, Mailing Fliers-370 , Other Outreach Events- 640</p>
Number of packers reached?	<p>5- Reached through phone calls, grower trainings, and expos.</p>
Development of materials	<p>Flash Drives – includes resources related to Ag Production Water, Postharvest Water, Postharvest Sanitation, Farm Food Safety Plan Templates, Soil Amendments, Wildlife, Worker Health and Hygiene and general PSR resources. These are handed out at grower trainings.</p> <p>Exemption Applications/Certificates – required in SC to be exempt from undergoing inspections</p> <p>Farm Food Safety Plan Template</p>
Publication	<p>Produce Safety Rule Self-Assessment Brochure and Compliance Dates Flier</p>
Presentations given at educational event	<p>32 Total– CFSA GAP workshops, SCDA GAP workshops (3), SC Strawberry Growers Meeting, SC Peach Council Meeting, SC Watermelon Board Meeting, Farmer Resource Rodeo (2), Watermelon Field Day(2), Farmers’ Market Annual Conference(3), FDA webinar, NASDA webinar, SC Food Safety Council, Farm to School Conference, SC Farm Bureau Conference, Southeast Fruit and Vegetable Expo (2), SC Agribiz Expo (2), Oconee County Ag Advisory Board Meeting, Cooper Family Farm Field Day, Coastal Rec Field Day (3), SC Ag Commission, Farm Bureau Newberry County Meeting, In-House Employee Training, Young Farmers and Ranchers Meeting</p>

State Update Report

South Carolina Department of Agriculture

B. Do you have any specific anecdotes/stories that you'd like to share? Please include quotes, if possible, from growers/producers since this is helpful in engaging others with your work.

"I'm 85 years old and have been farming all my life, and this is the best training I have every been too." -Grower Training Attendee

"Thank you ALL for doing such a great job on the PSA Grower Training class! I took the Private Pest Applicator class last night and paid \$100 . .. I felt like today's class was worth a LOT more! I gained so much more! Common sense puts it all in perspective, but your course, which was presented with a time conscious, methodical, practical approach gave it to us in a way that we can recall, and use!

Thank you for all the work and energy that went into this!" -Grower Training Attendee

"The inspection experience was exactly what I was hoping it would be when I first started learning of FSMA. The inspectors came on the farm, they obviously had been on a lot of farms and had worked farms. One of the inspectors was an active farmer, herself. And they knew a lot about, not only the food safety challenges of growing and producing food, but they knew about the business challenges to the farmer." -Owner of a Large Farm

C. Other information you would like to share?

We are helping our growers with water testing costs through the Specialty Crop Block Grant. We have participated in the following NASDA workgroups: Farm Inventory, Inspectional Approach, Final Inspection Report, Recall Process, Farm Inventory Aggregate Date, Education Planning Data Capture. Our website is www.scproducesafety.com



State Update Report

Tennessee Department of Agriculture

Program Area	Responsible Party
1.) CAP Project Designation	Tennessee Department of Agriculture (TDA)
<u>Status Update</u>	TDA receives CAP funding for both Competitions A and B.
2.) PSA Grower Training	University of Tennessee Institute of Agriculture (UTIA)
<u>Status Update</u>	UTIA handles all of the PSA Grower Trainings as part of their collaboration with Competition A activities per our UTIA-TDA subaward . UTIA also conducts a “Field Break” webseries that highlight PSA grower modules.
3.) OFRR	TDA/UTIA
<u>Status Update</u>	TDA leads OFRRs. It is the hope moving forward that at least one representative from UTIA will be present at each OFRR to achieve a regulatory/ educational balance. During 2019 TDA has prioritized midsized and small farms when conducting OFRR services. As of this writing, TDA has conducted 8 OFRRs in 2019.
4.) Inspection	TDA
<u>Status Update</u>	TDA conducts all inspections as required by receiving Competition B funding. As of this writing TDA has conducted 10 PSR inspections.
5.) State Rule Making	TDA Legal Staff
<u>Status Update</u>	TDA is in the process of adopting the PSR by reference. A law passed by both chambers of the General Assembly and signed by former Governor Bill Haslam in May 2018 gave TDA state authority to conduct PSR inspections while the rulemaking process was underway.

State Update Report

Tennessee Department of Agriculture

A. Metrics of quantitative success:

Number of trainings provided?	10 PSA Grower Trainings, 1 Train-the-Trainer
Number of growers reached?	229 Growers reached through the PSA Grower Trainings, 25 Trainers reached through the Train-the-Trainer Course. TDA has conducted outreach activities most notably at the annual Pick Tennessee Conference where we reach a sizeable number of growers each year.
Number of packers reached?	The number of packers reached is difficult to quantify. Packers have been reached at outreach events. However, the number of packers reached is significantly smaller than the number of growers reached at these events.
Development of materials	FTDA has developed promotional materials (flashlights, bags, stress relievers, pens) used to engage growers at outreach events such as the annual Pick Tennessee Conference. TDA has also developed two farm information cards that have been sent out to growers and circulated to UTIA for distribution. One of these cards assists with farm inventory while the other allows a farm to request an OFRR.
Publication	TDA has not produced any publications at this time.
Presentations given at educational event	TDA representatives have given presentations to various stakeholders (the Tennessee Fruit and Vegetable Association for example) over the course of the CAP. On average, TDA will conduct 5 educational presentations per year.

State Update Report

Tennessee Department of Agriculture

B. Do you have any specific anecdotes/stories that you'd like to share? Please include quotes, if possible, from growers/producers since this is helpful in engaging others with your work.

Growers have begun to look at OFRRs not only as a safety tool but as a marketing one. A grower in late 2018 was able to leverage the fact that they had an OFRR take place into a contract with a buyer. Companies see the PSR as an asset that helps reduce their liability, much in the same way many growers do.



State Update Report

Virginia Department of Agriculture

Program Area	Responsible Party
1.) CAP Project Designation	VDACS
<u>Status Update</u>	Tier 4 state in Competition A/B
2.) PSA Grower Training	Virginia Cooperative Extension (VCE)
<u>Status Update</u>	<p>Trainings are coordinated by Virginia Cooperative Extension through a grant sub-award and MOU. VDACS employees have completed the PSA train-the-trainer course and help teach course modules. There are currently two lead instructors and 29 trainers (23 from VCE and 6 from VDACS) conducting courses throughout the state. This has been a successful collaboration for everyone involved.</p>
3.) OFRR	VDACS and VCE
<u>Status Update</u>	<p>Over 41 OFRRs have been completed. Once regulatory inspections begin for very-small covered farms in 2021, VDACS will turn over the entire OFRR program to VCE. The voluntary aspect of the OFRR has not worked in our favor as we anticipated many more farmers would take advantage of this opportunity.</p> <p>OFRRs for small farms began on May 1, 2019 when compliance inspections started for large covered farms. After May 1, there will not be any more OFRRs conducted for large farms by VDACS. On January 27th, 2020 we will begin compliance inspections of small farms and also OFRRs for very small farms. On January 27th, 2021 we will begin compliance inspections of very small covered farms and VDACS will end all OFRR activities. It is at this point in time where we anticipate turning over the OFRR program to Virginia Tech extension so that they can conduct OFRRs on farms that have not yet been inspected or new farms that are now growing covered produce or considering growing covered produce. VDACS will be in the full regulatory inspection phase.</p>

State Update Report

Virginia Department of Agriculture

4.) Inspection

VDACS

Status Update

Regulatory inspections of large covered farms began May 1, 2019. By the end of October, 100% of the large covered farms in our state inventory will have been inspected. We are also doing sprout inspections.

5.) State Rule Making

VDACS

Status Update

Legislation was introduced after a jurisdictional self-assessment revealed that our Program did not have clear regulatory authority on the state level to enforce the Produce Safety Rule through the current Virginia Food Laws. The Program Manager for the Office of Dairy and Foods drafted legislation with the assistance of the Office of Policy, Planning and Research. The proposed legislation went through many revisions and several meetings were held with constituent groups to garner support. Senate Bill No. 1195 was introduced to the 2017 General Assembly and would amend the Code of Virginia by adding to Title 3.2 a chapter numbered 51.1, consisting of 6 sections numbered 3.2-5146 through 3.2-5156, relating to produce safety. Specifically, SB1195 prohibits certain farms from violating the federal regulations that set minimum standards for the safe growing, harvesting, packing, and holding of fruits and vegetables. The bill authorizes the Board of Agriculture and Consumer Services to adopt regulations to carry out the purposes of the law and gives the Commissioner of Agriculture and Consumer Services free access at reasonable hours to certain farms to inspect the farms and take samples. The Commissioner or his/her agents are also authorized to seize certain produce if determined to be grown, kept, or exposed for sale or held in violation of federal regulations or state law, and the bill provides a court process by which the seizure may be contested. SB1195 passed the Senate and House with several amendments made and opposition from certain consumer groups. The Bill was signed by the Governor on March 16, 2017 and became law effective July 1, 2017. Please see Code of Virginia, Title 3.2, Chapter 51.1 Produce Safety §3.2-5146 through §3.2-5156.

State Update Report

Virginia Department of Agriculture

A. Metrics of quantitative success:

Number of trainings provided?	PSA Grower Training courses = 19
Number of growers reached?	# of attendees that attended the PSA courses = 550
Number of packers reached?	Included in previous answer
Development of materials	<p>We have developed six different outreach rack cards that describe our state Produce Safety Program and the FSMA PSR. Other materials include OFRR flyers, PSA grower training class flyers, etc.</p> <ul style="list-style-type: none">•Postcard handout - grabs attention of produce farmers and directs them to website.•Produce Safety Program rack card - handout that informs farmers about the new produce safety program and directs them to website.•Compliance Dates rack card - handout that informs farmers about PSR compliance dates, exemptions and directs them to website.•Covered Farms rack card - handout that discusses covered produce and directs them to website.•Education and Training rack card - handout that informs farmers of need to attend PSA course and directs them to website.•Safe Water rack card - handout that touches on water requirements and directs them to website.•Trade show pop-up display skeleton and fabric panels that grab attention of event attendees.•Trade show pull-up banner of the coverage and exemption flow chart in color.

State Update Report

Virginia Department of Agriculture

Publication

- www.vaproducesafety.com is now live and updated on an as needed basis.
- Radio interview with Mr. Jeff Ishee from “On the Farm” radio regarding the FSMA Produce Safety Rule and implementation in Virginia (Fall 2017). Free of charge.
- TV interview WVPT Public Media (PBS and RFD channel) with Mr. Jeff Ishee from “Virginia Farming” regarding the FSMA Produce Safety Rule and implementation in Virginia. Aired on 11/20/2017 and recording is available here <http://video.wvpt.net/video/3006731097/>. Free of charge.
- An article regarding the FSMA Produce Safety Rule and implementation in Virginia in the fall edition of Farm Bureau News published by the Virginia Farm Bureau. Free of charge.
- An article regarding the FSMA Produce Safety Rule and implementation in Virginia in the May edition of Cooperative Living magazine. This magazine is published by the Association of Electric Cooperatives and reaches anyone who receives his or her electricity from a power co-op in the Delmarva region.
- On 4/4/19, three members from the Produce Safety Program along with three members of the Virginia Cooperative Extension (VCE) conducted an On-Farm Readiness Review (OFRR) demonstration at Garner’s Produce Farm in Westmoreland County. This activity was conducted along with support from the Virginia Farm Bureau Specialty Crop Advisory Committee as an opportunity for Committee Members and regional produce farmers to ask questions about the Produce Safety Rule and showcase what producers can expect during an OFRR. This activity resulted in a publication and news lead for the September 2019 edition of Farm Bureau News published by the Virginia Farm Bureau. Free of charge

State Update Report

Virginia Department of Agriculture

Presentations given at educational event

We setup a display/exhibit and handed out informational materials at 16 conferences/events since implementation to include:

- Virginia Farmer's Market Association (VAFMA) Conference (11/8-9/17)
- VCE Small Farm Conference (11/10-11/17)
- VA Farm Bureau Federation Conference (11/28/17)
- Virginia Farm Show (1/17-19/18)
- Biological Farming Conference (1/22-24/18)
- Eastern Shore Ag Conference and Trade Show (1/24-25/18)
- Dayton Produce Auction (10/23/18)
- Virginia Farmer's Market Association (VAFMA) conference (11/1-2/18)
- VSU Small Farm conference (11/2-3/18)
- VA Farm Bureau Federation conference (11/26-28/18)
- State Fair of Virginia (9/28 - 10/7/18)
- VA Association of Biological Farming conference (1/11-13/19)
- Southeast Virginia Fruit and Vegetable conference (2/20/19)
- Farm to Table Conference (12/6/18)
- Mid-Atlantic Strawberry school (2/27/19)
- Virginia Urban Ag Summit (4/23/19)



State Update Report

Virginia Department of Agriculture

Presentations given at educational event (continued)

We gave a powerpoint presentation about the new Produce Safety Program in VA and handed out informational materials at 27 different conferences/events/meetings to include:

- CASA Annual Conference (5/1/17)
- Virginia Farmer's Market Association (VAFMA) Conference (11/8-9/17)
- Eastern Shore Ag Conference and Trade Show (1/24-25/18)
- VCE Annual Extension Agent Conference (2/6-8/18)
- Lulu's Local Food Annual Producer Meeting (2/6/18)
- Franklin Market Grower Meeting(2/7/18)
- Local Food Hub Annual GrowerMeeting (2/9/18)
- Capital Area Farmer's MarketAssociation (2/12/18)
- Nelson County Fruit School (2/14/18)
- Winchester Commercial Tree Fruit Production School (2/16/18)
- Southeast Vegetable Workshop inSuffolk (2/20/18)
- Chesapeake Farmers Market Meeting(2/21/18)
- Richmond Area Vegetable Production Conference (2/21/18)
- Virginia Farm Bureau Apple and Specialty Crop Advisory Committee Meeting (2/23/18)
- Virginia Beach Strawberry School (2/27/18)
- Wegman's Grower Meeting (2/28/18)
- Danville Area Farmer's Market meeting (3/26/18)
- FDA ORA HAFE2/Baltimore District RRT quarterly meeting (4/3/18)
- Virginia Farmer's Market Association (VAFMA) conference (11/1-2/18)
- Southeast Virginia Fruit and Vegetable conference (2/20/19)
- Young Growers Alliance of Virginia (11/27/18)
- Northern Neck Growers Association (12/7/18)
- Virginia Farm Bureau Apple and Specialty Crop advisory committee meeting (1/10/19)
- Virginia Pumpkin Growers Association (1/26/19)
- Southwest Virginia Produce Growers Association (2/11/19)
- Richmond area Vegetable Growers Association (2/21/19)

ABSTRACTS

Diving Into Ag Water In-Service Training

Fryer, Julia; Gardner, Angela; Fenton, Clyde; Philyaw Perez, Amanda

The University of Arkansas Food Systems and Food Safety Team leads the state outreach and education program for the Produce Safety Rule supported by FDA funding. From conducting OFRRs, we identified a need for training beyond the PSA related to specific GAPs on water delivery systems, including water sources, types of pumps, well head inspection, and back-flow prevention devices. To help address this gap, we developed a training for Agriculture Extension Agents and Arkansas Department of Health Inspectors called Diving in to Ag Water. Split between classroom and hands-on instruction, participants learned about well systems and irrigation systems and how to take well and surface water samples for microbial contamination, build a MWQP, and build a handwashing station. After completing the training, 83% of attendees agreed or strongly agreed that they felt more confident in their ability to assist their clientele in taking water samples and building the MWQP, inspecting wellheads for potential food safety risks, and in their understand of well construction and associated food safety risks. Using a combination of classroom and hands-on learning experiences was successful in communicating information. Based on pre-test and post-test data, two thirds of the attendees increased in their understanding of agricultural waters, while one thirds knowledge neither increased nor decreased. We hope that agents and inspectors bring the information learned at this training back to their counties to better assist farmers covered by the PSR in best practices surrounding agricultural waters and in building their MWQPs.

Food Safety Training and Assistance for the Cottage Law Home Baker Project

Graves, A; Jadeja, R; Nelson, R; Holcomb, R

Due to economic downturn in 2008 and the public's growing demand to purchase locally produced foods, a strong grass-roots movement to pass state cottage food laws has allowed opportunities for small-scale food businesses to become established out of homes. In 2017, the Oklahoma Home Bakery act was amended that provided more selling opportunities for the home baker. This new rule not only gained additional public interest but also created confusion into adhering to the law. As a result, the Robert M. Kerr Food & Agricultural Product Center (FAPC) collaborated with the Oklahoma Department of Agriculture Food and Forestry (ODAFF) in creating a training program to provide information to this growing segment of the food industry. Additionally, selling food to the general public comes with expectations towards food safety the home-baker may not fully be aware. Since home bakeries are not required to be inspected or licensed, home-bakers would not be inclined to take expensive and time-consuming preventative control workshops. Until this training was developed, no other instruction is offered in the state to educate home-bakers on best practices, food safety and liability issues that can come with producing a baked food. The team developed and held (5) one day courses covering topics of good manufacturing practices, allergens/cross contamination and food safety/microbiology. Suggestions were offered to the attendees, aid in record-keeping and calculations of income, with decision tools to determine if the baker is capable of moving on to a brick-and-mortar facility. As a result, 103 people were trained in total at these workshops. The knowledge gained was accessed through pretests and post tests given at the trainings. The average pretest score was 65% and the average post test score increased to 84% of questions answered correctly. We are currently collecting responses from participants for midterm to long term program evaluation. FAPC will continue training beyond the scope of the grant and has scheduled two more workshops to be held in 2020.

Center for Food Safety and Applied Nutrition (CFSAN)- Produce Safety Network (PSN) Accomplishments and Activities (2017-2018)

Klaman, Theresa C.; Allen, Kate L.; Nork, Brittany R.; Trujillo, Socrates; Gilbert, Trevor; **Ducharme, Diane T.**; Nolte, Kurt; Viazis, Stelios; Hughes, Stephen; Mahovic, Michael

FSMA is transforming the nation's food safety system by shifting the focus from responding to foodborne illness to preventing it. The Produce Safety Network (PSN) was built to support the efforts of farmers, state regulators, and other key stakeholders to promote a uniform and consistent understanding of the Produce Safety Rule (PSR) and support implementation activities by providing direct technical assistance to stakeholders. The PSN is comprised of produce safety experts from the Center for Food Safety and Applied Nutrition (CFSAN) and specialized investigators from the Office of Regulatory Affairs (ORA). The PSN attended numerous events during 2017 & 2018 to conduct outreach, share information about the Produce Safety Rule, and discuss FDA's efforts to implement the Produce Safety Rule. During this time, technical assistance was provided for over 300 stakeholder questions and real-time support for regulators, both FDA and state, as they conduct inspections on farms with the regulator technical assistance network (rTAN) to promote the consistent understanding and application of the PSR. Educational farm visits and on-farm readiness reviews (OFRR) provided opportunities for engagement with stakeholders in learning environments to capture unique growing conditions, practices, and compliance challenges throughout the United States and internationally. To be successful with prevention, PSN empowers stakeholders with the information they need to make the right decision at the right moment. The presence of Produce Safety Network members around the country enables FDA to better respond to regional events and incidents through real-time communication and information sharing. The PSN remains a resource for stakeholders, to promote greater awareness and understanding of the Produce Safety Rule, and to support efforts to achieve compliance with the Produce Safety Rule.

Food Safety Education and Outreach for Florida Growers

Saha, Joyjit; Langford, Taylor; Chapin, Travis; Krug, Matthew; Harder, Amy; Goodrich, Renee; Danyluk, Michelle; Tapley, Leah

In Florida, the University of Florida Institute of Food and Agricultural Sciences and the Florida Department of Agriculture and Consumer Services collaborate to provide education and outreach through Produce Safety Alliance (PSA) Grower Training Courses and On-Farm Readiness Reviews (OFRR) to assist growers in meeting the requirements of the Food Safety Modernization Act (FSMA) Produce Safety Rule (PSR). The objective is to determine if the PSA training was successful in improving the level of knowledge of the PSR and foundational food safety principals that Florida growers have, and to determine the level of farm preparedness for FSMA PSR compliance. We also developed PSA trainers and lead trainers, distributed throughout the state to serve as resources for Florida growers. A total of 99 trainers and 18 lead trainers have been developed geographically across the state. Pre- and post-test scores out of 25 points were compared using a t-test to determine if there was an increase in knowledge after completion of the PSA grower training (n=950). For the OFRRs (n=35), qualitative data was submitted anonymously to an online survey, developed by the OFRR team through the National Association of State Departments of Agriculture, and compiled for percentages. Results of post-tests scores (20.26) following PSA grower training were significantly higher than pre-test scores (16.46), indicating an increase in knowledge after participation in the training ($t=7.72$, $P<0.05$). After collecting anonymous OFRR data, the three areas on farms that required the most improvement for PSR compliance were preharvest water, and harvest and postharvest sanitation practices. Of the farms that were assessed, 46% met the FSMA PSR requirements, 40% needed minor improvements, and 14% needed significant improvements to meet the PSR requirements. The results of the PSA Grower Training and the OFRR program demonstrates improvement in the knowledge and compliance level of Florida farms as we work towards FSMA PSR implementation.

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

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The overall goal of Southern Center (SC) was to build upon the collaborative infrastructure established within the Southern US over the previous three years to support Food Safety Modernization Act (FSMA) compliant training, education, outreach, and technical assistance as it relates to the food industry, focusing on produce. The SC includes participation from land-grant institutions and non-government and community-based organizations in Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Texas, and Virginia. Objectives include: (1) Develop and offer continuing educational opportunities to a cadre of PSA trainers and lead trainers, and FSPCA Lead Instructors within the Southern US; (2) Coordinate a regional communication strategy to discuss ongoing efforts and best practices for FSMA-related training, education, and technical assistance; (3) Establish protocols for reviewing alternative and modified food safety training curricula, add-ons, and best practice approaches to ensure consistency with FSMA rules; (4) Develop and implement a technical assistance network targeting farmers, processors and vendors in the Southern US; and (5) evaluate the impact of Southern Center education and training. Development and publication of add-on curricula, including model-teaching plans for the Preventive Controls rule, are ongoing. Pre/post-tests to measure knowledge gain have been developed, validated, and are in use for PSA and FSPCA PCQI courses. A directional dependent samples t-test was used to determine that there has been a significant increase in knowledge after completion of PSA (n=1303) and FSPCA (n=108) training. A qualitative evaluation was conducted with participants three months after they attended SC training. Most respondents were using the information to create or modify food safety record-keeping systems, write or modify farm food safety plans, implement new or change methods for cleaning and sanitizing food contact surfaces, and implement or change practices for monitoring on-farm facilities.

FSMA Produce Safety Rule in Florida

Tapley, Leah

The Food Safety Modernization Act (FSMA) Produce Safety Rule (PSR) compliance dates for large and small farms have arrived. In Florida, the Florida Department of Agriculture and Consumer Services (FDACS) has launched education and outreach initiatives to help prepare farms for inspections, which began in May 2019. To assist with the large amount of farming operations in Florida, FDACS has partnered with the University of Florida Institute of Food and Agricultural Sciences (UF/IFAS) to conduct Produce Safety Alliance (PSA) Grower Trainings and On Farm Readiness Reviews (OFRR).

The PSA Grower Trainings satisfy the requirement stated in §112.22 (c) of the PSR, which requires that at least one responsible party from the farm successfully complete food safety training recognized as adequate by the Food and Drug Administration (FDA). To date, there have been 62 PSA Grower Trainings and five Train the Trainer courses hosted in Florida. There are two FDACS employees certified to teach at these trainings.

Farms that have completed the PSA training are encouraged to participate in the OFRR program. An OFRR is a voluntary educational opportunity for the farm. One FDACS employee and one UF/IFAS employee perform a walk through at the farm and provide feedback to assist in aligning practices with the PSR regulatory requirements. There have been 55 OFRRs performed in Florida to date. FDACS has seven trained assessors for the OFRRs.

In addition to PSA Grower Trainings and OFRRs, FDACS employees attend conferences, trade shows, small farmer meetings, and more to promote awareness of the PSR regulations. There are advertisements in several industry publications for OFRRs. All of these practices are proving to be beneficial to Florida's farms.

Southern University Ag Center Produce Safety Alliance Grower Training Assessment of Knowledge Gained

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Produce Safety Alliance (PSA) Grower Trainings are currently the only approved food safety course that satisfies the Produce Safety Rule requirements. PSA is taught around the United States and overseas by trained federal, state, academic, private, and other personnel. It is known that education is the first step to prevention, but without an evaluation of knowledge gained it is impossible to assess whether participants are learning. The objective of this assessment was to validate the overall knowledge gained among participants and investigate answer selections of the most frequently missed questions. Each participant in the PSA Grower Training was given a Knowledge Assessment at the beginning and at the end of the course. The total number of correct answers were determined for each assessment and total number of selections per answer choice. The data was analyzed for statistical significance using 2 by 2 contingency tables. The results showed the highest statistical significance between pre and post assessments ($p < 0.00001$) were questions #19 ($2.592E-12$), #20 ($7.359E-08$), #22 ($5.212E-07$), and #17 ($2.64E-06$). There were four questions that less than half of the participants answered correctly on the post-assessment. The questions were #22 (module 7) with 37.65%, #21 (module 6) with 38.82%, #24 (module 7) with 49.41%, and #13 (module 4) with 49.41%. Each of these questions were analyzed to see if the majority of the participants were selecting the same wrong answer. It was concluded, that there was strong evidence for dependence between pre versus post assessments. Therefore, for future trainings there will be more clarification, demonstrations, hands on activities, fact sheets, and emphasis on the modules and topics that participants had the most difficulty responding to correctly.

FSMA PSR Subpart D: Worker Training, Health and Hygiene Training Curriculum

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The Food Safety Modernization Act (FSMA) Produce Safety Rule (PSR) establishes science-based minimum standards for the safe growing, harvesting, packing, and holding of produce on farms. Operations covered under the FSMA PSR must meet standards for worker training, health and hygiene (subpart D). These standards establish qualification and training requirements for all personnel who handle covered produce or come into contact with food-contact surfaces. Documentation of this required training must be kept, which includes establishing hygienic practices and other measures needed to prevent persons from contaminating covered produce with microorganisms of public health significance. Produce operators (e.g., growers, packers) subject to the PSR will need to comply with the new worker training, health and hygiene requirements.

Produce operators may find developing a training themselves, which comprehensively covers all aspects required for PSR compliance of subpart D, a daunting task. As a result, Virginia Cooperative Extension has developed a training curriculum to assist produce operators who are covered under the FSMA PSR. This training curriculum incorporates visual representations of personal health and hygiene standards established by the PSR; as well as, content which will support a farm or packinghouse to confidently train their workers. The training will take approximately one hour to complete and covers the following sections: worker health and hygiene; wild and domesticated animals; soil amendment use; post-harvest handling and sanitation; and overall record keeping summary for worker training, health and hygiene.

The training is currently available in English and Spanish and is best presented using technology, but can be presented without technology (using print-out aids). Virginia Cooperative Extension agents will be trained in this curriculum and be available to present it to workers in partnership with the management of a produce farm operation on site. This training may also be used independent of extension by produce farm operators to train their personnel.

Characterization of the Environment and Risk Management Practices for Strawberry Farms in the Southeastern United States

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Introduction: Strawberries are among the top 5 produce commodities in the US, accounting for over 53,000 acres of land. In the Southeastern US, there are many small-scale growers, some harvesting on less than one acre. As implementation of risk management practices can be affected by scale, small-scale growers may face unique barriers.

Purpose: To characterize the current risk management practices of strawberry growers in the Southeastern US.

Methods: A 43-question survey was developed using Qualtrics software to collect information regarding grower's location, business characteristics, farm characteristics, and risk management practices. Questions were designed based on the Produce Safety Rule (PSR) as well as expert reviews. The survey was distributed to individual growers and professional organizations.

Results: A total of n=124 participants completed the survey. Farm size ranged from 1-10,00 acres with 0.06-600 acres dedicated to strawberry production. Strawberries were not the only commodity for 91.9% of growers with 65.5% and 34.5% producing crops or crops/livestock, respectively. Of those growing >1 crop, 50.4% were covered by the PSR, however, 34.5% were unsure. The majority of growers did not report their income, however those who did \$25,001-250,000 was most common. Those who grew strawberries alone were more likely to prefer not to answer (92.7%) than those who had other agricultural comminutes. Growers reported using risk management practices but were less likely to document them. For example, 76% of growers reported their employees had attended food safety training, meanwhile, only 40.7% had documented training procedures. Growers who kept documentation were most likely to have written procedures, followed by corrective actions, and training records (p<0.01).

Significance: Our results indicate that strawberry growers within the Southeastern US have significant differences in their documentation of risk management practices. As this is an integral part of the PSR, strawberry growers may benefit from additional education regarding documentation.

