

ISU Annual Report FDA IDALS grant

Developing a Coordinated Effort within Iowa to Implement an Infrastructure, Education, Technical Assistance, and Inventory Program in Alignment with the FDA's Produce Safety Rule

Section A - Cover page

Section B – Accomplishments

Section B.1. What are the major goals and objectives of the project?

The main goals of Iowa State University portion of this project are: (1) Establish a sustainable communication network connecting educators and growers through Iowa to facilitate collaboration for FSMA compliance training and build training capacity; (2) Conduct a needs assessment and identify the gaps in knowledge for growers and incorporate these gaps in knowledge into curriculum for educators; (3) Conduct on-farm inventory assessments and follow ups to ensure the growers are in compliance with the FSMA Produce Rule; (3) Teach the FDA Produce Safety Alliance curriculum and develop specialized technical assistant sessions for growers to ensure knowledge is transferred and (4) Use continuous evaluation of the impact of the proposed training and technical assistance as feedback to improve training and other services. Achieving these objectives will meet the goal of the project. The initial steps and goals for the first year are to: (1) Design a website with information for the Iowa public, train 7 educators to be lead trainers of the FDA Produce Safety Alliance curriculum, and schedule 12 meetings amongst extension educators and 2 meetings between team members and IDALS; (2) Develop an Iowa based on farm self-assessment tool; (3) Conduct 10 on-farm inventory assessments; (4) Schedule 10 FDA Produce Safety Alliance Trainings and 10 Technical Assistance sessions; (5) Schedule and conduct 2 meetings with the entire team and finalize the annual report summary.

Section B.2. What was accomplished under these goals?

In Year 3 accomplishments listed below have been completed:

Under objective 1 (Establishment of a Sustainable Communication Network and Infrastructure Development) our major goals were to have twelve meetings amongst extension educators and two meetings amongst team members and IDALS. We held ten virtual meetings with extension educator on August 2nd and 28th, September 25th, November 15th and 20th, and December 19th, 2018, and January 31st, February 26th, March 26th, May 23th, 2019, along two in-person meetings on October 29th, 2018, and April 25th, 2019. We plan to have a June meeting on 26th, 2019.

Under objective two, our major goals were to develop a data entry and analysis of the on-farm inventory assessment and FDA Produce Safety rule trainings and follow-up sessions, determine compliance level amongst growers, and have a third party data collection as part of state and national evaluation. Our team developed an on-farm inventory assessment system that distinguishes farm and processor designation of full compliance, qualified exempt, and exempt that is housed on the internal website in year

two. Data was collected through the Produce Safety Rule trainings as optional and current listservs that ISU based participants hold. Participants' information was also utilized for follow up evaluations and technical assistance. We continued to populate this database in year three and modified the entries with additional information at the request of FDA.

Under objective 3 (Conducting on-farm inventory assessments and follow-ups), we planned to perform 10 inventory assessments or On-Farm Readiness Reviews. There was a delay in the training in year 1, so 10 of these on-farm inventory assessments had to be transferred to year 2. Between June 2018 and January 2019, we have conducted ten on-farm readiness reviews. April 2019 to June 2019 we expect to conduct 5 on-farm readiness reviews. In January of 2018, one additional team member was trained in Orlando, Florida, for the On-Farm Readiness Reviews.

Under objective 4 (Conducting extension education, outreach and technical assistance), we partnered with Iowa organizations and provided food safety workshops, presented at conferences, and had Produce Safety Alliance Trainings in 12 of the Iowa Extension Regions (Red Oak, Grinnell, Peosta, Guthrie Center, Waterloo, Bettendorf, Nevada, Leon, Burlington, Algona, Adel, Bloomfield). Our team also supported two trainings in bordering Minnesota towns (Granger and Sac City). We developed one video on agricultural production water and had workshops at 22 conferences, field days, and educational programs in Iowa. Below is a list of all the programs and dates and participants numbers (n=467).

1. July 31st, 2018: Field Day at Norwalk, IA. 6 Participants. Presenter: Joe Hannan
2. August 8th, 2018: Hort Farm Field Day at Ames, IA. 25 Participants. Presenter: Joe Hannan
3. September 7th, 2018: Field Day at Atlantic, IA. 10 Participants. Presenters: Angela Shaw and Joe Hannan
4. September 17th, 2018. Field Day at Iowa City, IA. 30 Participants. Presenters: Joe Hannan, John Krzton-Presson, Teresa Wiemerslage
5. October 16th, 2018: Produce Safety Alliance Grower Training, Red Oak, IA. 11 Participants. Presenters: Joe Hannan, Shannon Coleman, and John Krzton-Presson.
6. November 8th, 2018: Produce Safety Alliance Grower Training, Grinnell, IA. 11 Participants. Presenters: Joe Hannan, Dan Fillius, and John Krzton-Presson.
7. November 27th, 2018: FSMA Produce Safety Rule at a glance. 20 Participants. Presenter: Ames, IA
8. November 27th, 2018: Produce Safety Alliance Grower Training, Peosta, IA. 10 Participants. Presenters: Angela Shaw, Teresa Wiemerslage, Morgan Hoenig, and Dan Fillius.
9. December 11th, 2018: Produce Safety Alliance Grower Training, Guthrie Center, IA. 12 Participants. Presenters: Joe Hannan, Lakshman Rajagopal, Shannon Coleman, and Dan Fillius.
10. January 10th-12th, 2019: Great Plains Grower Conference. St. Joseph, MO. 100 Participants. Presenter: Joe Hannan

11. January 24th, 2019: Produce Safety Alliance Grower Training, Waterloo, IA. 14 Participants. Presenters: Angela Shaw, Lakshman Rajagopal, and Teresa Wiemerslage.
12. January 24th and 25th, 2019: Iowa Fruit and Vegetable Grower Conference (2 workshops), Ankeny, IA. 50 Participants. Presenters: Dan Fillius, Joe Hannan
13. February 5th, 2019: Produce Safety Alliance Grower Training, Nevada, IA. 23 Participants. Presenters: Joe Hannan, Lakshman Rajagopal, Manreet Bhullar, John Krzton-Presson, and Dan Fillius.
14. February 13th, 2019: Produce Safety Alliance Grower Training, Granger, MN. 16 Participants. Presenters: Teresa Wiemerslage, Shannon Coleman, and Dan Fillius.
15. February 14th, 2019: Farm Manual workshop with the GAP FSMA manual, Dubuque, IA. 3 farms. Presenter: Teresa Wiemerslage
16. February 25th, 2019: Produce Safety Alliance Grower Training, Bettendorf, IA. 25 Participants. Presenters: Manreet Bhullar, Morgan Hoenig, and Dan Fillius.
17. February 26th, 2019: Farm Manual workshop with the GAP FSMA manual, Cedar Rapids, IA. 2 farms. Presenter: Teresa Wiemerslage
18. February 28th, 2019: Produce Safety Alliance Grower Training, Leon, IA. 33 Participants. Presenters: Joe Hannan and Angela Shaw
19. March 7th, 2019: Produce Safety Alliance Grower Training, Burlington, IA. 16 Participants. Presenters: Teresa Wiemerslage, Morgan Hoenig, and Dan Fillius.
20. March 12th, 2019: Produce Safety Alliance Grower Training, Algona, IA. 11 Participants. Presenters: Angela Shaw, Joe Hannan, and Dan Fillius.
21. March 28th, 2019: Produce Safety Alliance Grower Training, Bloomfield, IA. 28 Participants. Presenters: Angela Shaw, Lakshman Rajagopal, Morgan Hoenig, and Dan Fillius.
22. March 30th, 2019: Produce Safety Alliance Grower Training, Adel, IA. 11 Participants. Presenters: Joe Hannan, John Krzton-Presson, and Dan Fillius.
23. June 10-11th, 2019: Produce Safety Alliance Grower Training, Ames, IA. 8 participants. Presenters: Smaranda Andrews, Bridget Perry
24. June 27th, 2019: Produce Safety Alliance Grower Training, Ames, IA. 11 participants. Presenters: Dan Fillius, Smaranda Andrews

We have also produced the following educational videos on how to clean a walk-in cooler, cleaning and sanitizing crates, and production water for growers to gain additional information. We will also have educational videos on Process water, How to Sample Water Properly, and inspection of water systems completed before the end of Year 3. Our team has incorporated technology and non-technology methods in year 3 as well. Specifically, our team has increased its awareness of underserved populations within Iowa and have made efforts to ensure they are included. Realizing that known Amish communities were not attending our trainings, we reached out to them and found transportation to be a common barrier to participation. All communities thus far have had large enough numbers of growers to justify organizing a PSA training in each community. In year 3, our team also focused on ensuring that our trainings and field days were accessible for the physically disable and those with visual and hearing lose (such as our veteran farmers). Through the purchase of portable speakers with mics, headset units and new potable projector we were able to ensure that at all trainings were

more accessible. Our team also scouted all locations prior to the sessions to ensure accessibility issues were resolved before the event. With the purchase of I-pads our team was able to take notes during food safety inventory visits and provide more comments and recommendations without the presence of bulky laptop computers.

Under objective 5 (Multi-Year Planning), we held a research brainstorm session on December 19th, 2018, to gather ideas for needs within the state. We will be submitting a USDA Foundation Grant Proposal (Research and Extension Proposal) in the 2019 grant cycle as a team. We have also worked with other states Departments of Agriculture to ensure uniformity and lessons learned are shared. Specifically, we have hosted joint Produce Safety Alliance Trainings with Wisconsin, Minnesota, Missouri, and Kansas and have sent members of our team to Ohio, Indiana, Michigan, Kansas, South Dakota, and Minnesota for educational sharing at grower conferences and field days.

Section B.3. Competitive Revisions/Administrative Supplements.

None

Section B.4. What opportunities for training and professional development has the project provided?

Paul Ovrom, Joe Hannan, and Angela Shaw attended the NASDA/FDA Consortium for Produce Safety Program Development in Orlando, FL on March 5-8, 2019. Dan Fillius attended the On-Farm Readiness Reviews Train-the-Trainer in Orlando, Florida, in January 2019. Dan Fillius attended the PSA Train the Trainer course in Normal, Alabama, on October 10-11, 2018. Dan Fillius also achieved Lead PSA Trainer status on November 19th, 2018. The team provided education at many conferences this year (see B.2) with a goal of educating on best practices for growers, processors, holding owners, and workers. These trainings reached about 467 growers in year 3.

Section B.5. How have results been disseminated to community of interest?

Teresa Wiemerslage and Joe Hannan developed a database which includes food and farming systems groups, specialty crop grower's associations, organic producer associations, farmer NGOs, food hubs and produce auctions, extension agents, university and community college faculty, immigrant and tribal farming groups and agencies who serve them. We have also developed a list of major Iowa growers that need to be in compliance with FSMA and a list of medium and small growers that will need food safety training. Most farmers growing covered produce in the state received communications from 4 major producer organizations: Practical Farmers of Iowa, Iowa Fruit and Vegetable Growers Association, Regional Food System Working Groups, and Iowa State University Extension and Outreach. Team members developed online trainings on Good Agricultural Practices that covered pre-harvest, post-harvest, and a general introduction to food safety concerns and maintained a web portal at www.safeproduce.cals.iastate.edu or www.iowafoodsafety.org. Team members also created postcards with the state of Iowa map divided into 20 regions which corresponds to the Iowa State University Extension Outreach 20 regions. The extension offices in each region will be able to help us conduct FDA Produce Safety Alliance training. The postcards are announcements of future trainings in each region. Two press releases announcing training opportunities were sent to Extension offices, grower groups, farmer

associations and other farm organizations. Four handouts/information sheets were also created and will be distributed at trainings.

Section B.6. What do you plan to do during the next reporting period to accomplish the goals and objectives?

Our central hypothesis is that Iowa-specific on-farm inventory assessments, FSMA education, and access to technical assistance will provide the crucial tools for growers to comply with the FSMA Produce Safety Rule. We will build a sustainable educational infrastructure specific to Iowa that will leverage existing relationships and extant curricula while developing the identified missing tools to meet FSMA requirements.

Objective #1: Establishment of a Sustainable Communication Network and Infrastructure Development. We are also planning 12 meetings amongst extension educators and two meetings amongst team members and IDALS; some of the meetings have already been scheduled.

Objective #2: Conduct a Self-Assessment for Growers. In year four, we will continue to collect grower information through the Produce Safety Alliance Courses and the online developed form. We will analyze that data to determine compliance level amongst growers. Based on the data, we will determine any new priority educational needs for Iowa, and we will start a list of research gaps that need to be addressed.

Objective #3: Conducting on-farm inventory assessments and follow-ups. We will conduct 10 on-farm readiness reviews assessments in year 4 and then conduct 10 follow up on-farm inventory assessments in years 4 and 5 on the same farms. We currently have 22 people on our request list for on-farm readiness reviews.

Objective #4: Conducting extension education, outreach and technical assistance. We plan to conduct in year 4, 10 FDA Produce Safety Alliance Trainings and 10 Technical Assistance sessions covering the whole state on Iowa. We will also identify and participate in continuing education trainings for our all team members. The results from the trainings with Iowa farmers will be disseminated in oral and poster forms at state and national conferences. We plan to completed at least three new videos on produce food safety topics. We plan to develop at least five need standard operating procedure documents in year 4.

Objective #5: Multi-Year Planning. Team members are in constant contact with each other determining additional activities and keeping each other posted with the team's progress. Year four will give us the opportunity to evaluate what went well and also the changes we need to implement to move our work forward.

Section C - Products

Iowa State University Website for Local Foods: www.iastatelocalfoods.org

Information Flier and Agenda for Produce Safety Alliance Trainings, also for short training on FSMA Produce Safety Rule.

Videos: Production Water (Videos are being finalized and will be disseminated summer of 2019).

Section D – Participants

- Angela Shaw, PhD Project Director. Assistant Professor, ISU Food Science and Nutrition

- Shannon Coleman, PhD Assistant Professor, ISU Food Science and Nutrition
- Lakshman Rajagopal, PhD Associate Professor ISU Dept. of Apparel, Events and Hospitality Management.
- Catherine Strohbehn, PhD Adjunct Professor, ISU Apparel, Events and Hospitality
- Paul Ovrom, State Horticulturist. Iowa Department of Agriculture and Land Stewardship
- Joe Hannan, Commercial Horticulture Field Specialist, ISU Extension and Outreach
- Linda Naeve, ISU Extension Program Specialist, Value Added Agriculture
- Teresa Wiemerslage, ISU Extension Specialist, Local Foods
- Dan Fillius, ISU Extension Specialist, Food Safety Educator
- Smaranda Andrews, PhD, Department of Food Science and Human Nutrition, Lecturer
- Morgan Hoenig, ISU Extension Specialist, Local Foods Coordinator
- John Krzton-Presson, ISU Extension Specialist, Horticulture & Local Foods Program Coordinator
- Manreet Bhullar, Graduate Student, ISU Food Science and Nutrition
- Bridget Perry, Graduate Student, ISU Food Science and Nutrition

Section E. Impact

We have formed an Iowa Produce Food Safety Team. The Team is contributing to forming a network of food safety professionals in Iowa, which has already led to new projects and new collaborations. We have one impact story from a grower who has been impacted by our work. This story can be viewed here ->

(<https://ncrfsma.org/files/news/files/Buske%20and%20Puffer.pdf>)

Section F – Changes/Problems

Change in Personnel

- Catherine Strohbehn, PhD Adjunct Professor, ISU Apparel, Events and Hospitality. Retired in July 2018.
- Linda Naeve, ISU Extension Program Specialist, Value Added Agriculture. Retired in July 2018.
- Smaranda Andrews, PhD, Department of Food Science and Human Nutrition, Lecturer. Accepted a new job in September 2018
- John Krzton-Presson, ISU Extension Specialist, Horticulture & Local Foods Program Coordinator. Accepted a new job in April 2019.

New Personnel

- Dan Fillius, ISU Extension Specialist, Food Safety Educator. Hired in November 2018.

Section F.2. Actual or anticipated challenges or delays and actions or plans to resolve them.

None

F.3. Significant changes to human subjects

None