



## Food Safety Consortium NEWSLETTER

Winter 2019

### 2020 Upcoming UArizona Training Events and Other Activities

- **January 7 – 9: Basic preventive controls for human food certificate training program**
  - In Tucson – a 2.5-day workshop (space still available)
  - For more information, see “<https://ce.arizona.edu/classes/basic-food-safety-preventive-controls>”
- **January 13 – 14: Advanced HACCP/preventive controls certificate training program**
  - In Tucson -- a 1.5-day workshop (space still available)
  - For more information, see “<https://ce.arizona.edu/classes/advanced-haccp>”
- **January 28: Produce Safety Alliance Grower Training**
  - In Yuma – a 1.0-day training (space still available)
  - For more information, see “<https://agriculture.az.gov/plantsproduce/food-safety-modernization-act>”
- **February 4: Produce Safety Alliance Grower Training**
  - In Phoenix – a 1.0-day training (space still available)
  - For more information, see “<https://agriculture.az.gov/plantsproduce/food-safety-modernization-act>”

### 2019 Past UArizona Events and Publications

#### ***Produce Food Safety Education for Arizona Stakeholders***

Since 2017, the UArizona Cooperative Extension and the Arizona Department of Agriculture (AZDA) have been working together to educate growers, harvesters, packers and coolers of fresh produce about food safety practices. President Obama passed the Food and Drug Administration (FDA) Food Safety Modernization Act (FSMA) on January 4, 2011. This regulation focuses on setting the first-ever Federal regulatory standards for the production, harvest, and handling of fruits and vegetables, in an effort to prevent microbial contamination and reduce foodborne illnesses associated with fresh produce. The Produce Safety Rule (PSR) was made available publicly on November 13, 2015 and was published in the Federal Register on November 27, 2015. FSMA and the PSR are transforming the U.S. food safety system by shifting the focus from responding to foodborne illness to preventing it.

With the collaboration between the UArizona Cooperative Extension and the AZDA classes are being taught in every county in AZ focused on the PSR. In the last 3 years over 655 people have been trained in AZ who work in the produce industry. This includes government, academic and farming industry who work with fruits, vegetables and nuts. In 2019 alone 210 people were trained. It is a national requirement that one person from each produce farm with an annual value of produce sales greater than \$25,000 attend the Produce Safety Grower Training Course. Consortium members Dr. Channah Rock and her Assistant in Extension, Natalie Brassill, both based at the Maricopa Agricultural Center, along with Dr.



Paula Rivadeneira and her Research Technician Ban Saber, based at the Yuma Agricultural Center, have been executing these trainings alongside AZDA since 2017. Trainings will continue into 2020 as more farms come into compliance with the PSR and AZDA State and Federal audits continue.

The Produce Safety Rule Grower Training Course focuses on 5 main topics:

- Worker health, hygiene, and training
- Agricultural water, both for production and post-harvest uses
- Biological soil amendments (e.g., compost, manure)
- Domesticated and wild animals
- Equipment, tools, buildings, and sanitation

Courses are held monthly all over AZ, with the next two opportunities listed in “2020 Upcoming UArizona Training Events and Other Activities.” To find our more information please visit:

<https://agriculture.az.gov/plantsproduce/food-safety-modernization-act>

\*\*\*\*\*

#### ***Food Safety Training for Arizona Stakeholders***

Also contained within FSMA and its implementing regulations, is a requirement for a “preventive controls qualified individual” to be associated with each food manufacturing firm that produces food under the jurisdiction of FDA. One way to meet this expectation is to complete training based on an approved standardized curriculum. The Basic Food Safety Preventive Controls for Human Food workshop provides this training. Participants will receive a certificate from the Food Safety Preventive Controls Alliance and, if desired, 2 Continuing Education Units (CEUs) from the UArizona. Consortium member Dr. Dan Engeljohn is the lead instructor delivering the training.

In addition, for the Hazard Analysis and Critical Control Point (HACCP) regulations issued under the jurisdiction of the Food Safety and Inspection Service (FSIS), U.S. Department of Agriculture (USDA), there is a requirement for a trained individual on the 7 HACCP principles. One way to meet this expectation is to complete training based on an approved standardized curriculum. Both the Basic and the Advanced HACCP workshops provides this training. Participants will receive a certificate from the International HACCP Alliance and if desired, either 1.5 or 1.2 Continuing Education Units (CEUs) from the UArizona depending on which workshop is completed. Consortium member Dr. Dan Engeljohn is the lead instructor delivering the training.

Earlier this year, in August, the first of these workshops was offered in Tucson (i.e., Basic HACCP). Twelve participants completed the course. The participants were from the commercial food industry, State government, and UArizona. In addition to the individual workshops, the content of all three workshops were combined into a 3-unit full-semester course that included an overview of food processing technologies (ACBS 355 – Food Processing and Food Safety Preventive Controls). In this full-semester course, students receive a grade and, optionally, the associated certificates and CEUs. Two students out of the larger class opted to also complete the extra work and received the certificates. Consortium member Dr. Dan Engeljohn developed the course and is the instructor.

The goal of the certificate training workshops is to offer all three workshops at least annually either in the summer, winter, or both. In addition, the courses can be delivered anywhere. Anyone is eligible to



participate. For more information, please visit the UArizona CEU catalog: <https://ce.arizona.edu/catalog> and look for the food safety workshops.

\*\*\*\*\*

**Food Safety Law Course**

The UArizona was able to add another course this past Fall to the options available to degree-seeking students in the new 4-year food safety Bachelor of Science program (i.e., ACBS 437 – Food Safety Laws and Legal Policies). This 3-unit course prepares students for an understanding about how national and international food safety policies are developed and enforced. In addition, the students are required to prepare a report on a relevant food safety issue.

This past semester, the topic of the student report was “insects as human food/animal feed.” The students had to address the 7-parts of the FDA regulation associated with a Generally Recognized as Safe (GRAS) petition. The students had to research how to safely obtain the insects (live or already processed) and then describe how the potential food safety hazards could be prevented under ordinary conditions of use and consumption. In researching their GRAS petitions, the students were very excited to tour the UArizona insect-rearing facility under the leadership of Consortium member Dr. Goggy Davidowitz and learn how human food waste can be incorporated into the insect rearing process. Regarding the final petitions, interestingly, the majority of students chose to use the insects as a cattle feed supplement and to raise and process the insects under controlled conditions on their own property. For those students that chose to use the insects as a human food, most of the applications used the insect product as part of a formulated energy bar. Generally, there were no public or animal health concerns raised through this exercise.

\*\*\*\*\*

**Shout-Out to the Poster Session Winners at the 2019 Food Safety Consortium Conference**

It was very exciting to read the posters and have the students explain their work at the October 17 conference. In addition, it was encouraging to know that the JV Smith Companies, via the Victor P. Smith Endowed Chair in Food Safety Education, supported the poster session competition with award money. The summary of the poster titles and the award winning presenters are as follows:

First Place – “Pathogen occurrence in treated domestic wastewater intended for irrigation” – Presenter Sarah Abney, along with fellow researchers Christina Morrison, Justin Clark, Anna De Gresham, Alexander Ignell, Libin Zhu, Sadhana Ravishankar, Luisa Ikner, Kelly Bright, Walter Betancourt, Charles Gerba

Second Place – “Green sanitizers: Improved safety and shelf-life of iceberg lettuce washed with plant-based antimicrobial microemulsions” – Presenter Stephanie Arellano, along with fellow reseachers Bibiana Law and Sadhana Ravishankar



Third Place – “Prevalence of cyclospora cayetanesis in irrigation water in the Southern region of the US” – Presenter Breanna Salt, along with fellow researchers Kaitlyn Benally, Daniela Cabrera, Monique Torres,

Honorable Mention – “Cyclospora: Potential reservoirs and occurrence in irrigation waters” – Presenter Kaitlyn Benally, along with fellow researchers Shaira Perez, Gloria Villa Barbosa, Monique Torres, Daniela Cabrera, Walter Betancourt, Kelly Bright, Charles Gerba, Paula Rivadeneira, Masaaki Kitajima, Gerardo U. Lopez

\*\*\*\*\*

***Thanks to Our Advisory Committee Members***

We are fortunate to have more than just the current faculty, students, and employees of UArizona involved in the food safety work of the Consortium. Presently, the following representatives from AZ industry/government are appointed to the Consortium:

- Dan Bogert- AZ Restaurant Association
- Rasool Rabbani- Bar-S
- Hank Giclas- Western Growers Association
- Kevin Whitehurst- Shamrock Dairy
- Norman Barnett- AZ Department of Agriculture
- Joli Weiss- AZ Department of Public Health

We are looking to appoint a representative from the AZ meat industry. If you know of anyone that would be interested, please let Dr. Sadhana Ravishankar, Chair of the UArizona Food Safety Consortium, know by contacting her at [sadravi@email.arizona.edu](mailto:sadravi@email.arizona.edu)

Newsletter created by:

Dr. Dan Engeljohn, [dengeljohn@email.arizona.edu](mailto:dengeljohn@email.arizona.edu); please send any updates for future Newsletters and/or comments to this contact