

## Calling all Controlled Environmental Agriculture and Produce Food Safety Specialists.

Through a USDA National Institute of Food and Agriculture and Food Research Initiative Competitive Program (Grant # 2022-11647) conference grant (<https://foodsafety.uada.edu/2023-safer/>), the grant team desires to collect three items for dissemination.

- 1) We desire to assemble a book to highlight all of the researchers and extension and outreach specialists. These one-pagers can be sent to conference collection website URL:<https://osf.io/meetings/SAFERCEA2023> or emailed to Angela Shaw ([angela.shaw@ttu.edu](mailto:angela.shaw@ttu.edu)). These will be assembled into a single booklet and hosted on the SAFER CEA website. Below is the format of the 1 pager (example is provided):
  - Your Name and contact information (Name, Email, Phone Number, Website Address)
  - Your unit or university (can add a logo)
  - Objective of your research and/or extension and outreach program
  - List of specific types of research and/or extension and outreach you conduct (such as Risk Assessment, Intervention Development, Methodology and Detection, Observational Assessments, Produce Safety Alliance Grower training, Certified Organic Inspector, etc.)
  - List of facilities and equipment to conduct CEA Produce Research and/or Extension and Outreach Programs
  - List of relevant literature/ extension materials for CEA Produce Industry (link to an extensive list of these items)
- 2) We desire to assemble a series of short videos to highlight facilities and best food safety practices from the CEA industry. Specifically, we desire videos that highlight facilities and what food safety preventive measures you have in place. We request the videos to be hosted on your company's website and provide us ([angela.shaw@ttu.edu](mailto:angela.shaw@ttu.edu)) the link to be placed on the SAFER CEA Conference website. Please contact us if you desire us to host your video.
- 3) We desire videos that highlight food safety CEA research facilities. We request the videos to be hosted on your university/units website and provide us ([angela.shaw@ttu.edu](mailto:angela.shaw@ttu.edu)) the link to be placed on the SAFER CEA Conference website. Please contact us if you desire us to host your video.

**Angela Shaw, Ph.D., Professor, Department of Animal and Food Sciences, Texas Tech University, [angela.shaw@ttu.edu](mailto:angela.shaw@ttu.edu), 806-834-2833**

The objective of Research and Extension and Outreach Program: As a trained microbiologist and food scientist, her research focuses on developing intervention strategies to control and prevent foodborne pathogens from entering the food supply.

Specific Type of Research: Her research focuses on fruits and vegetables, post-harvest handling, supply chain, grocers, and food manufacturing. Her research program has three main themes: 1) Characterizing foodborne pathogens survival within food production environment; 2) Establishing research-based food safety interventions against foodborne pathogens within food environment; and 3) Developing, implementing and evaluating educational strategies to change food safety risky behaviors, attitudes, and motives in growers and food manufactures. She conducts observational risk assessments, prevalence and challenge studies, intervention development from the farm through retail, shelf life assessment, and validation studies.

Specific Type of Extension and Outreach: She teaches: Food Safety Culture training, Food Microbiology for Industry, Food Law, Produce Safety Alliance Grower, Preventive Controls for Human Food, Good Agricultural Practices, Good Manufacturing Practices, Environmental Monitoring, ServSafe, and Diversity, Equity, and Inclusion, and Culturally based produce safety training for English as a second language populations.

Facilities: Biological Safety Level 2 (BSL2) microbiology laboratory, BSL2 pilot plant (mimic processing/ manufacturing), ten BSL2 growth chambers (units can handle root crops through short fruit trees), and access to BSL1 greenhouses with 4 reservoirs of NFT and 12 reservoirs of deep water hydroponics units (BSL1 greenhouse is operated by Dr. Catherine Simpson at Texas Tech University).

Relevant Literature and Extension and Outreach Materials

- Eylands, N.J., Evans, M.R., and A. Shaw. 2021. Antimicrobial mitigation via saponin intervention on *Escherichia coli* and growth and development of hydroponic lettuce. *Hort Tech*: 31(2):174-180
- Gomez, C., Currey, C., Dickson, R., Kim, H., Hernández, R., Sabeh, N., Raudales, R., Brumfield, R., Laury-Shaw, A., Wilke, A., and S. Burnett. 2019. Controlled Environment Food Production for Urban Agriculture. *HortScience*: 54 (9):1448-1458
- Elumalai, E.D., A. Shaw, D.A. Pattillo, C. Currey, K.A. Rosentrater, and K. Xie. 2016. Use of ultraviolet treatment as a food safety intervention in a model aquaponics system. *Water* <http://www.mdpi.com/2073-4441/9/1/27/pdf>
- Shaw, A., K. Helterbran, M.M. Evans and C. Currey. 2016. Growth of *Escherichia coli* O157:H7, Non-O157 Shiga Toxin–Producing *Escherichia coli*, and *Salmonella* in Water and Hydroponic Fertilizer Solutions. *Journal of Food Protection* 79 (12):2179-2183.

Full List of Publications can be found on: <https://www.depts.ttu.edu/afs/people/shaw.php>