ANGELA M. WALLA (SHAW) PhD

Professor, Department of Animal and Food Science, Texas Tech University BOX 42141 ● Lubbock, TX 79409 ● 515-451-3243 ● angela.walla@ttu.edu

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EDUCATION	
2006-2010	Ph.D. in Animal Science, emphasis in Food Microbiology
	Department of Animal and Food Science, Texas Tech University
	Dissertation: Establishment of a pre-harvest spinach intervention against
	Escherichia coli O157:H7 using lactic acid bacteria.
2004-2006	M.S. in Animal Science, emphasis in Meat Safety
	Department of Animal Science (Meat Science), Iowa State University
	Thesis: Use of carbon monoxide combined with carbon dioxide for
	modified atmosphere packaging of pre- and post-rigor fresh pork sausage
	to improve shelf life.
1999-2003	B.S. in Animal Science, emphasis in Product Development
	Department of Animal Science, Iowa State University
CERTIFICATIONS	
2016-Present	Lead Trainer for Produce Safety Alliance Grower Training
2016-Present	Trainer Food Safety Preventive Control Alliance Animal Food
2015-Present	Lead Trainer for Food Safety Preventive Control Alliance Human Food
2009-Present	Trainer Good Agricultural Practices/ Good Manufacturing Practices
2006-Present	Instructor Hazard Analysis Critical Control Point (HACCP)
2006-2019	ServSafe® through National Restaurant Association
PROFESSIONAL E	XPERIENCE
2022-present	Professor, Animal and Food Science Department
•	Texas Tech University, Lubbock TX
•	Appointment:80% Research, 10% Teaching/Outreach; 10% Service
2022-present	Appointment: 80% Research, 10% Teaching/Outreach; 10% Service Affiliate Faculty, Department of Food Science and Human Nutrition,
2022-present	Appointment:80% Research, 10% Teaching/Outreach; 10% Service Affiliate Faculty, Department of Food Science and Human Nutrition, Iowa State University, Ames, IA
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Food Safety Expertise: Fruit, vegetable, meat, raw agricultural communities, and value added/manufacturing industries.

Countries Serviced Through Research and Extension: United States of America (including U.S. Virgin Islands and Puerto Rico), China, France, Mexico, Slovenia, Romania, Bhutan, Ethiopia, Uganda, and Burundi

PROFESSIONAL H	ONORS, AWARDS, RECOGNITIONS
2025	Served as major professor for Doreen Edebe, recipient of the Partnership for
	Food Safety Education travel scholarship
2024	Served as major professor for Laura Sofia Araujo Henriquez, recipient of
	the William Barry and Judy Jahns Norman Endowed Scholarship in Animal
	Sciences
2024	Served as major professor for Ronny Barrera, recipient of the Craig Fox
	Memorial 2024 Viva Fresh Scholarship Award
2024	Served as major professor for Grace Akumu, recipient of 2024-2025 Helen
	DeVitt Jones Graduate Fellowship, Texas Tech University
2024	Served as major professor for Grace Akumu, recipient of 2024 First Place
	(People's Choice) Texas Environmental Health Association Student
	Research Presentation Competition
2024	Served as major professor to Grace Akumu, recipient of Second place in the
	2024 Texas Tech University Graduate School Poster Competition in the
	Biological Life Sciences Category
2024	Served as major professor for Grace Akumu, recipient of 2024 Graduate
	Fellow in the Davis Excellence in Meat Science and Food Safety
	Fellowship
2024	Served as major professor for Liliana Avaroma, recipient of 2024-2025
	FMI Foundation's Food Safety Auditing Scholarship
2024	Dean Research Incentive Award 2024. Davis College of Agriculture and
	Natural Resources
2024	Davis College Dean's Research Grant Award 2024. Davis College of
	Agriculture and Natural Resources
2023	Served as major professor for Grace Akumu, recipient of 2023 Student
	Liaison position of the International Association for Food Protection
	Microbial Modelling and Risk Analysis Professional Development Group
2023	Served as major professor for Grace Akumu, recipient of the 2023-2024
	FMI Foundation's Food Safety Auditing Scholarship
2023	Served as major professor for Laura Ajata, recipient of 2023-2024 Helen
	DeVitt Jones Graduate Fellowship, Texas Tech University
2023	Served as major professor to Grace Akumu, Laura Ajata, and Ronny
	Barrera, recipients of Viva Fresh Produce Expo Conference Student
	Scholarship. April 1 st , 2023
2023	Served as major professor to Grace Akumu and Laura Ajata, recipient of
	Second place in the Texas Tech University Davis College Graduate Student
	Poster Competition on September 28 th , 2023
2023	Davis College Dean's Research Grant Award 2023. Davis College of
	Agriculture and Natural Resources
2020	College of Agriculture and Life Sciences Dean Lee R. Kolmer Award for
	Excellence in Applied Research

2020	Iowa State University Extension and Outreach Excellence in Research-
	Based Programming Award (On Farm Produce Safety Team Award)
2020	College of Agriculture and Natural Resources Extension and Outreach
	Team Award (On Farm Produce Safety Team Award)
2020	2020 Women Impacting Iowa State University Calendar
2020	YWCA Women of Achievement Award
2019	Iowa State University Award for Inclusive Excellence
2018	College of Agriculture and Life Sciences Faculty Award for Diversity
	Enhancement
2017	Texas Tech University Advanced Degree Graduate of Distinction-Hall of
	Fame Award by Department of Animal and Food Sciences
2017	Women of Innovation Awards-Technology Association of Iowa Award
	Finalist
2016	Iowa State University Recognized as a "Change Agent"
2016	Iowa State University Extension and Outreach Creativity in Service to All
	Iowans Award
2015	Iowa Section Institute of Food Technologists Outstanding Volunteer
2013	Iowa Section Institute of Food Technologists Outstanding Volunteer
2011	Iowa STATEment Maker provided by Iowa State University Alumni
	Association

LEADERSHIP

Myers Briggs Type Indicator: ENFJ (Extraversion, Intuition, Feeling, Judging)

Korn Ferry 360 Feedback Report (Highest Skills): Managing diversity, Fairness to direct reports, Action Oriented, Perseverance, Time Management, Customer Focused, Integrity and trust, Ethics and values, Timely decision making, Organization, Intellectual horsepower, Process management, Drive for results, Priority setting, Planning, and Building an effective teams

management, Driv	e for results, Priority setting, Planning, and Building an effective teams.
2023-present	Inaugural Chair of the Welcome Ad-Hoc Committee for the International
	Association for Food Protection (IAFP)
2022-Present	Co- Director of International Center for Food Industry Excellence at Texas
	Tech University
2021-2022	Inaugural Chair of the Diversity, Equity, and Inclusion Committee for the
	International Association for Food Protection (IAFP)
2019-2020	Lead 21 Program (Class of 15): provides leadership and professional
	development training for faculty and professionals within the land-grant
	system (https://lead-21.org/)
2017-2022	Co-Chair of Black Faculty and Staff Association at Iowa State University
2016-2022	Project Director of Iowa On-Farm Produce Safety Team
	(<u>https://www.safeproduce.cals.iastate.edu/</u>) -FDA and Iowa Department of
	Agriculture and Land Stewardship Funded Center (\$1.2 Mil)
2016-2022	Project/ Co-Director of North Central Regional Food Safety
	Modernization Act Center (www.ncrfsma.org) -FDA/USDA Funded
	Center (\$2.6 Mil)
2015-2022	Lead of Strategic Area of Excellence Group "Community Health and Food
	Safety Education" in Department of Food Science and Human Nutrition at
	Iowa State University

See "Service and Outreach Section" for other current and past leadership and member position

SCHOLARLY PUBLICATIONS AND PRESENTATIONS

<u>In-preparation Refereed Journal Articles (19)</u>

- 1. Naig, A., Winn, S., Arendt, S., and **A. Walla**. 2024. Consumer attitudes and expectations of restaurant COVID-19 mitigation practices concerning public health after year one of the COVID-19 pandemic
- 2. Ghosh, B., **Walla, A.**, Boylston, T., and M. McDaniel. 2024. Persistence of *E. coli* in the soil environment a review. Journal of Food Protection.
- 3. Ghosh, B., **Walla, A.,** Boylston, T., and M. McDaniel. 2024. Influence of soil texture and nutrients on the survival of *E. coli* in midwest agricultural soils. Journal of Food Protection.
- 4. **Walla, A.,** Akumu, G., Barrera, R., Ajata, L., Hernandez Guatemala, E.A., and B. F. Jovel Gonzalez. 2024. Survival of *E.coli* O157:H7 and *Salmonella* within home-based hydroponics units with sprouts.
- 5. **Walla, A.**, Edebe, D., Matsiko, F., Barrera, R., Akumu, G., Barrera, R., Ajata, L., Espinoza, G., and M. Maldonado. 2024. Survival of *E.coli* O157:H7 and *Salmonella* on hydroponically grown traditional and microgreen basil varieties under home-based conditions.
- 6. Araujo Henriquez, L., Brashears, M., Legako, J., and **A. Walla.** 2024. Evaluation of the Effects of Root Decontamination of Salmonella Using Lactic Acid Bacteria and Quality Attributes of Living Cilantro (Coriandrum sativum) Grown Using the Nutrient Film Technique (NFT). American Society for Microbiology Journal
- 7. Avaroma, L., Simpson, C., Thompson, L., and A. Walla. 2024. Essential oils as intervention treatments. American Society for Microbiology Journal
- 8. Avaroma, L., Simpson, C., Thompson, L., and **A. Walla.** 2024. Efficacy of Eugenol Solutions as Seed Treatments for Controlling *Escherichia coli* O157:H7 and *Salmonella Typhimurium* in Basil (Ocimum basilicum L.) under Controlled Environmental Conditions. American Society for Microbiology Journal
- 9. Ajata, L., Simpson, C., Thompson, L., and **A. Walla**. 2024. Surveillance of *E. coli* O157:H7 and *Salmonella* Typhimurium in hydroponic systems with nutrient solution of different electrical conductivities. Journal of Food Protection.
- 10. Ajata, L., Simpson, C., Thompson, L., and **A. Walla**. 2024. A Mini Review: Survival needs of lettuce and *E. coli* O157:H7 and *Salmonella* Typhimurium in hydroponic systems. Journal of Food Protection.
- 11. Barrera, B., Ancell, B., Thompson, L., and **A. Walla**. 2024. Comparison of weather conditions from Salina Valley California in 2001, 2012, and 2023 in the survival of *E. coli* O157:H7 in outside-grown romaine lettuce. Journal of Food Protection
- 12. Barrera, B., Ancell, B., Thompson, L., and **A. Walla**. 2024. Comparison of weather conditions from Lubbock, Texas in 2001, 2012, and 2023 in the survival of *E. coli* O157:H7 in outside-grown romaine lettuce. Hort Tech
- 13. Matsiko, F., Brashears, M., Currey, C., Simpson, C., Thompson, L. and **A. Walla**. 2024. Survival of *E. coli* O157:H7& *Salmonella* on the roots & leaves of living butterhead lettuce & sweet basil packaged in hydroponic sleeves stored at 4°C for 14 days
- 14. Matsiko, F., Brashears, M., Currey, C., Simpson, C., Thompson, L. and **A. Walla**. 2024. Effect of postharvest root dip on *E. coli* O157:H7 & *Salmonella* in the roots & leaves of

- living butterhead lettuce & sweet basil packaged in hydroponic sleeves stored at 4°C for 14 days
- 15. Matsiko, F., Brashears, M., Currey, C., Simpson, C., Thompson, L. and **A. Walla**. 2024. Assessment of postharvest root dip intervention on the quality of living lettuce & basil packaged in hydroponic sleeves stored at 4°C for 14 days
- 16. Akumu, G., Brashears, M., Currey, C., Simpson, C., Thompson, L. and **A. Walla**. 2024. Type-dependent effects of hydroponic systems on the persistence of *Salmonella* Typhimurium and *Listeria monocytogenes*: Focus on Basil. Food Control
- 17. Akumu, G., Brashears, M., Currey, C., Simpson, C., Thompson, L. and **A. Walla**. 2024. Food Safety Practices and Risk Factors in Commercial Containerized and Fresh-Cut Herb Production within Controlled Environment Agriculture. International Journal of Food Microbiology
- 18. Akumu, G., Brashears, M., Currey, C., Simpson, C., Thompson, L. and **A. Walla**. 2024.In Vitro and In Planta Evaluation of *Bacillus* and *Pseudomonas* spp. as Biocontrol Agents Against *Salmonella* Typhimurium and *Listeria monocytogenes* in Hydroponic Basil Systems. International Journal of Food Microbiology
- 19. Akumu, G., Brashears, M., Currey, C., Simpson, C., Thompson, L. and **A. Walla**. 2024. Assessment of Commercial Bioinoculants for Biocontrol of *Salmonella* Typhimurium and *Listeria monocytogenes* in Hydroponic Basil Grown in Nutrient Film Technique and Deep Water Culture Systems. International Journal of Food Microbiology

Refereed Journal Articles Under Peer Review (0)

1.

Refereed Journal Articles (57)

- 1. Enderton, A., Johnsen, E., Shaw, A., Deering, A., and M. Omolo. 2024. Comparing the effectiveness of delivery style in produce safety training for growers. Journal of Food Science. 1–12. https://doi.org/10.1111/1750-3841.17100
- 2. Cropp, M.S., Sebranek, J.G., Dickson, J.S., Walla, A.M., Houser, T.A., Prusa, K.J., Unruh, D. and Tarté, R. 2024. Effect of Nitrire-Embredded packing film on growth of *Listeria monocytogenes* in nitrite-free and conventionally-cured bologna sausage. Journal of Food Protection. 87:11. https://doi.org/10.1016/j.jfp.2024.100361
- 3. Cropp, M.S, Tarté, R., Dickson, J.S., Shaw, A.M., Houser, T.A., Prusa, K.J., and J.G. Sebranek. 2024. Nitrite-embedded film develops cured color in nitrite-free bologna sausage packaged following thermal processing. Meat and Muscle Biology. https://doi.org/10.22175/mmb.17670
- 4. Narine, L., Enderton, A., Benge, M., Bihn, B., Brown, S., Kovacevic, J., Newbold, E., Schneider, K., and **A. Shaw**. 2024. Produce Safety Alliance Grower Training Assessment Results. Advancements in Agricultural Development. 5(3): https://agdevresearch.org/index.php/aad/article/view/473
- 5. Bilenky, M., Nair, A., McDaniel, M.D., **Shaw, A.**, Bobeck, E.A., and K. Delate. 2024. Integrating Pastured Meat Chickens into Organic Vegetable Production Increased Nitrogen, and Microbial Biomass with Variability in the Presence of E. coli and Salmonella spp. Renewal Agriculture and Food Systems. 39. E11. DOI: https://doi.org/10.1017/S1742170524000012
- 6. Hamilton, A., Gibson, K.E., Amalaradjou, M.A., Callahan, C.W., Millner, P., Ilic, S., Lewis Ivey, M.L., and **A. Shaw**. 2023. Cultivating Food Safety Together: Insights about

- the Future of Produce Safety in the U.S. Controlled Environment Agriculture Sector. Journal of Food Protection. https://pubmed.ncbi.nlm.nih.gov/37926289/
- 7. Nabwiire, L.*, **Shaw. A.**, Nonnecke. R.G., Talbert, J., and C.K. Muyanja. 2023. Compliance with food safety standards by beef vendors at butcheries in Kamuli District, Uganda. African Journal of Food Science. 17(9):192-206. DOI: 10.5897/AJFS2023.2272
- 8. Nabwiire, L.*, **Shaw, A.**, Nonnecke, G.R., Talbert, J., Chanes, C., Boylston, T., Tarte, R., and K. Prusa. 2023. Beef handling practices among consumers in the U.S. Virgin Islands. Journal of Food Protection. 86(9): 100141. Doi: 10.1016/j.jfp.2023.100141
- 9. Cropp, M.**, Prusa, K., Dickson, J., **Shaw**, A., Houser, T., Crowley, R., Reever, L., and R. Tarte. 2023. Impact of nitrite-embedded packaging film on quality and sensory attributes of alternatively-cured and nitrite-free bologna. Meat Science. https://doi.org/10.1016/j.meatsci.2023.109289
- 10. Jackson-Davis, A., White, S., Kassama, L., Coleman, S., **Shaw, A.**, Mendonca, A., Cooper, B., Thomas-Popo, E., Gordon, K, and L. London. 2023. A Review of Regulatory Standards and Advances in Essential Oils as Antimicrobials in Foods. Journal of Food Protection: 86 (2): 100025
- 11. Enderton, A., **Shaw, A.**, Knob, A., Plagakis, E., Johnsen, E. Naig, A., and M. Omolo. 2022. Produce Safety Alliance Training Long Term Behavioral Change Study in North Central Region. Food Protection Trends: 43(3):316-328
- 12. Nabwiire, L.*, **Shaw, A.**, Nonnecke, G., Minner, D., Johnsen, E., and L. Peterson. 2022. Cultural Sensitivity: A Requirement when Developing Food Safety Interventions. Journal of Extension: 60 (1). https://tigerprints.clemson.edu/joe/vol60/iss1/4/
- 13. Bhullar, M*, Perry, B*, Monge, A.*, Nabwiire, L.*, and **A. Shaw**. 2021. *Escherichia coli* survival on strawberries and unpacked romaine lettuce washed in contaminated water. Foods. https://www.mdpi.com/2304-8158/10/6/1390/htm
- 14. Nabwiire, L.*, **Shaw, A.**, Nonnecke, G., Minner, D., Johnsen, E., and L. Peterson. 2021. Addressing food safety educational needs of food handlers in the U.S. Virgin Islands. Food Protection Trends: 41 (4): 400-408
- 15. Perry, B.*, **Shaw, A.**, Enderton, A.E., Coleman, S.S., and E.E. Johnsen. 2021. North Central Region Produce Grower Training: Pre-Test and Post-Test Knowledge Change and Produce Safety Behavior Assessment. Food Protection Trends: 41 (3):266-273
- 16. Chen, H. **, Kinchla, A.J., Richards, N., Shaw, A., and Y. Feng. 2021. Produce Growers' On-Farm Food Safety Education: A Review. Journal of Food Protection: 84(4):704-716 DOI: 10.4315/JFP-20-320
- 17. Bhullar, M.*, **Shaw, A.**, Mendonca, A., Monge, A.*, Nabwiire, L.*, and E. Thomas-Popo. 2021. Shiga toxin producing *Escherichia coli* in the long-term survival phase exhibit higher chlorine tolerance and less sub-lethal injury following chlorine treatment of romaine lettuce. Foodborne Pathogens: 18(4):276-282
- 18. 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
- 19. Nazareth, J.*, **Shaw, A.,** Delate, K., and R. Turnbull. 2021. Food safety considerations in integrated organic crop-livestock systems: Prevalence of *Salmonella* spp., and *E.coli* O157:H7 in organically raised cattle and organic feed. *Renewable Agriculture and Food Systems*: 36(1): 8-16

- 20. Kiprotich, S.**, Mendonca, A.F., Dickson, J., **Shaw, A.,** Thomas-Popo, E., White, S., Moutiq, R., and S.A. Ibrahim. 2020. Thyme oil enhances the inactivation of Salmonella enterica on raw chicken breast meat during marination in lemon juice with added yucca schidigera extract. Frontiers in Nutrition, section Nutrition and Food Science Technology: 7: 619023
- 21. Bhullar, M.*, Monge-Brenes, A.*, Perry, B.*, Nabwiire, L.*, and A. Shaw. 2020. Determining the potential food safety risk associated with dropped produce on floor surfaces in the grocery store. Journal of Food Protection: 84 (2): 315-320.
- 22. Lorena Monge, A.*, Brown, W., Brecht, J.K., Xie, Y., Bornhorst, E.R., Luo, Y., Zhou, B., Shaw, A. and K. Vorst. 2020. Temperature profiling of open and closed produce display cases in retail grocery stores. Food Control: 113: 107158; https://www.sciencedirect.com/science/article/abs/pii/S0956713520300748
- 23. Bhullar, M.*, **Shaw**, **A.**, Hannan, J., and S. Andrews. 2020. Extending the holding time for agricultural water testing method EPA 1603 for produce growers. *Water*: 11 (10): 2020; https://doi.org/10.3390/w11102020
- 24. Thomas-Popo, E.**, Mendonca, A.F., Dickson, J., **Shaw, A.,** Coleman, S., Daraba, A.*, Jackson-Davis, A., and Woods, Floyd. 2019. Isoeugenol significantly inactivates *Escherichia coli* O157:H7, *Salmonella enterica*, and *Listeria monocytogenes* in refrigerated tyndallized pineapple juice with added Yucca schidigera extract. *Food Control*: 106 (December 2019, 106727)
- 25. Overdiep, J.*, and A. Shaw. 2019. Assisting Food Processors with Food Safety Modernization Act Compliance. *Journal of Extension*: 57 (3): 3TOT4
- 26. 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
- 27. Perry, B.*, **Shaw, A.,** Johnsen, E., Enderton, A., Strohbehn, C., and L. Naeve. 2019. Assessment of Midwest Growers' Needs for Compliance with The Food Safety Modernization Act Produce Safety Rule. *Food Protection Trends*: 39 (3):212-217
- 28. Strohbehn, C., Enderton, A., **Shaw, A.,** B. Perry*, Overdiep, J.* and L. Naeve. 2019. Determining what do Growers' Need to Comply with the FSMA Produce Safety Rule?. *Journal of Extension*: 56 (7):7RIB1
- 29. **Shaw, A.,** and K. Helterbran*. 2018. Development of a food safety training for prison farm: Challenges and opportunity. *Journal of Extension*: 56 (7):7IAW8
- 30. Vorst, K, Shivalingaiah, N.*, Monges Brenes, A.*, Coleman, S., Mendonca, A., Brown, J., and **A. Shaw**. 2018. Effect of Display Case Cooling Technologies on Shelf-Life of Beef and Chicken. Food Control 94: 56-64
- 31. **Shaw, A.,** Gragg, S.E., Echeverry, A., and M.M. Brashears. 2018. Survival of *Escherichia coli* O157:H7 after application of lactic acid bacteria. Journal of the Science of Food and Agriculture: doi: 10.1002/jsfa.9332
- 32. Wang, F.**, Mendonca, A., Brehm-Stecher, B., Dickson, J., Dispirito, A., and **A. Shaw**. 2018. Long-term-survival phase cells of Salmonella Typhimurium ATCC 14028 have significantly greater resistance to ultraviolet radiation in 0.85% saline and apple juice. *Foodborne Pathogens and Disease*: 15 (9):538-543
- 33. Eylands, N.J.**, Evans, M.R., and **A. Shaw**. 2018. Efficacy of Saponin Mitigation of *E.coli* under nonsterile and sterile conditions. HortScience 53 (9): S498-S498

- 34. Manu, D.**, A. Mendonca, A. Daraba*, J. Dickson, J. Sebranek, **A. Shaw**, and S. White. 2017. Antimicrobial efficacy of cinnamaldehyde against *Escherichia coli* O157:H7 and *Salmonella* enterica in carrot juice and mixed berry juices at 4C and 12C. Foodborne Pathogens and Disease 14(5):302-307. doi: 10.1089/fpd.2016.2214
- 35. Daraba, A.*, Mendonca, A., Manu, D., Dickson, J., Sebranek, J., **Shaw, A.**, and A. Dispirito. 2016. Enhanced destruction of *Salmonella enterica* in carrot and berry juices by a combination of cinnamaldehyde and high-pressure processing. *Journal of Experimental Food Chemistry*: 2:4 (supplement). http://dx.doi.org/10.4172/2472-0542.C1.006
- 36. 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
- 37. Svoboda, A.*, **A. Shaw**, L. Wilson, A. Mendonca, A. Nair and A. Daraba*. 2016. The effects of produce washes on the quality and shelf life of "cantaloupe" (Cucumis melo var. cantupensis) and "watermelon" (Citrullus lantus var. lanatus). *Journal of Food Quality* DOI:10.1111/jfq.12229
- 38. **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.
- 39. Abdelmassih, K.N., S. Arendt, C.H. Strohbehn, L. Rajagopal, K. Sauer, and **A. Shaw.** 2016. Evaluating impact of food safety messaging posters on observed employees' food safety behavior: A mixed methods approach. *Journal of Foodservice Management and Education* 10 (2): 19-25
- 40. Rajagopal, L., S.W. Arendt, **A. Shaw**, C.H. Strohbehn, and K. Sauer. 2016. Food safety posters for safe handling of leafy greens. *Journal of Extension* 54 (2): 2TOT5.
- 41. Svoboda A.*, **A. Shaw**, J. Dzubak*, A. Mendonca, L. Wilson, and A. Nair. 2016. Effectiveness of broad-spectrum chemical produce sanitizers against foodborne pathogens on cantaloupe and watermelon surfaces. *Journal of Food Protection* 79 (4): 524-530.
- 42. Dzubak, J.*, **A. Shaw**, C. Strohbehn, L. Naeve, and J. Johnson***. 2016. Food safety education for students and workers in school gardens and university farms. *Journal of Extension* 54 (1): 1TOT7.
- 43. Roy, A.*, S. Francis, **A. Shaw**, and L. Rajagopal. 2016. Promoting Food Safety Awareness for Older Adults by Using Online Education Modules. *Journal of Extension* 54 (1): 1TOT8.
- 44. Roy, A.*, **A. Shaw**, L. Rajagopal, C. Strohbehn, S. Arendt, and K. Sauer. 2016. Use of minimal text posters to improve the microbial status of leafy greens and food contact surfaces in foodservice sites serving older adults. *Food Protection Trends* 36 (2): 123-130.
- 45. **Shaw, A.**, J. Dzubak*, C. Strohbehn, and L. Naeve. 2016. Improving agricultural workers food safety knowledge through an online curriculum. *Professional Agricultural Workers Journal* 3 (2).
- 46. Myers, M.**, Sebranek, J., Dickson, J., **Shaw, A.**, Tarte, R., Adams, K, and S. Niebuhr. 2016. Implications of decreased nitrite concentrations on *Clostridium perfringens* outgrowth during an Appendix B cooling cycle for ready-to-eat-meats. *Journal of Food Protection* 79 (1): 153-156.
- 47. **Shaw-Laury, A.,** A. Svoboda *, B. Jie*, G. Nonnecke, and A. Mendonca. 2015. Survival of *Escherichia coli* on strawberries grown under greenhouse conditions. *Food Microbiology* 46: 200-203.

- 48. **Shaw A.**, A. Svoboda*, B. Jie*, A. Daraba* and G. Nonnecke. 2015. Importance of hand hygiene during the harvesting of strawberries. *HortTechnology* 25 (3):380-384.
- 49. **Shaw, A.**, C. Strohbehn, L. Naeve, P. Domoto, and L. Wilson. 2015. Current trends in food safety practices for small growers in the Midwest. *Food Protection Trends* 35 (6):461-469.
- 50. **Shaw, A.,** A. Mendonca, A., and A. Daraba*. 2015. "Clickers" and HACCP: Educating a diverse food industry audience with technology. *Journal of Extension* 53 (6): 6TOT6.
- 51. **Shaw, A.**, C. Strohbehn, L. Naeve, P. Domoto, and L. Wilson. 2015. Systematic approach to food safety education on the farm. *Journal of Extension* 53 (6): 6IAW4.
- 52. **Shaw, A.**, C. Strohbehn, L. Naeve, P. Domoto, and L. Wilson. 2015. Knowledge gained from good agricultural practices courses for Iowa growers. *Journal of Extension* 53 (5): 5RIB3.
- 53. Hong, S., A. Mendonca, A. Daraba*, and **A. Shaw**. 2014. Radiation resistance and injury in starved *Escherichia coli* O157:H7 treated with electron-beam irradiation in 0.85% saline and in apple juice. *Foodborne Pathogens and Disease* 11(11): 900-906.
- 54. Brown, AL., JC. Brooks, E. Karunasena, A. Echeverry, **A. Laury**, and MM Brashears. 2011. Inhibition of *Escherichia coli* O157:H7 and *Clostridium sporogenes* in spinach packaged in modified atmospheres after treatment combined with chlorine and lactic acid bacteria. Journal of Food Science Jul 5 doi: 10.1111/j.1750-3841.2011.02260.x.
- 55. Laury, A., MV. Alvarado, G. Nace, CZ. Alvarado, JC. Brooks, A. Echeverry and MM. Brashears. 2009. Validation of a lactic acid-based antimicrobial product for the reduction of E. coli O157:H7 and Salmonella on beef tips and whole chicken carcasses. Journal of Food Protection 72 (10): 2208-2211.
- 56. Laury, A. and J. Sebranek. 2007. Use of carbon monoxide combined with carbon dioxide for modified atmosphere packaging of pre- and post-rigor fresh pork sausage to improve shelf life. J. Food Protection 70 (6): 937-942.
- 57. Niebuhr S., **A. Laury**, G. Acuff, and JS. Dickson. 2007. Evaluation of nonpathogenic surrogate bacteria as process validation indicators for *Salmonella enterica* for selected antimicrobial treatments, cold storage, and fermentation in meat. Journal of Food Protection 71 (4): 714-718.
- *Shaw Post-Doc, Graduate, or Undergraduate Student | ** Shaw on Graduate Student Committee

Refereed Extension Publications (47)

- 1. Bilenky, M.**, Nair, A., Shaw, A., and E. Bobeck. 2020. Integrating poultry into an organic vegetable cropping system: benefits, challenges, and considerations. HORT 3103. https://store.extension.iastate.edu/product/16041
- 2. Nabwiire, L.*, **Shaw, A.** and E. Johnsen. 2020. Reducing food safety risk on produce farm. FS 34. https://store.extension.iastate.edu/product/15826
- 3. Nabwiire, L.*, **Shaw, A.** and E. Johnsen. 2020. Reducing food safety risk on produce farm-Agricultural Water. FS 35A. https://store.extension.iastate.edu/product/15829
- 4. Nabwiire, L.*, **Shaw, A.** and E. Johnsen. 2020. Reducing food safety risk on produce farm-Cleaning and Sanitizing. FS 35 B. https://store.extension.iastate.edu/product/15830
- 5. Nabwiire, L.*, **Shaw, A.** and E. Johnsen. 2020. Reducing food safety risk on produce farm- Handwashing. FS 35 C. https://store.extension.iastate.edu/product/15831
- 6. Nabwiire, L.*, **Shaw, A.** and E. Johnsen. 2020. Reducing food safety risk on produce farm-Worker Hygiene and Health. FS 35 D. https://store.extension.iastate.edu/product/15832

- 7. Nabwiire, L.*, **Shaw, A.** and E. Johnsen. 2020. Reducing food safety risk on produce farm- Harvest and Post Harvesting Handling. FS 35 E. https://store.extension.iastate.edu/product/15833
- 8. Nabwiire, L.*, **Shaw, A.** and E. Johnsen. 2020. Reducing food safety risk on produce farm-Biological Soil Amendments of Animal Origin. FS 35 F. https://store.extension.iastate.edu/product/15834
- 9. Monge-Brenes, A.L.*, Velez, J.*, **Shaw, A.**, and K. Vorst. 2020. Stocking and rotation of produce: Best practices for retail employees. FS 37. https://store.extension.iastate.edu/product/16022
- 10. Monge-Brenes, A.L.*, Velez, J.*, **Shaw, A.,** and K. Vorst. 2020. Manager's responsibility: Employees reporting foodborne illness. FS 36A. https://store.extension.iastate.edu/product/16042
- 11. Monge-Brenes, A.L.*, Velez, J.*, **Shaw, A.,** and K. Vorst. 2020. Employee health and personal hygiene- Training for employees. FS 36B. https://store.extension.iastate.edu/product/16043
- 12. Monge-Brenes, A.L.*, Velez, J.*, **Shaw, A.,** and K. Vorst. 2020. Display case cleaning. FS 37B. https://store.extension.iastate.edu/product/16044
- 13. Monge-Brenes, A.L.*, Velez, J.*, **Shaw, A.,** and K. Vorst. Handwashing. 2020. FS 38. https://store.extension.iastate.edu/product/16045
- 14. **Shaw, A.,** Fillius, D., and E. Johnsen. 2020. On-Farm Training Guide for Employees and Volunteers. https://www.ncrfsma.org/training-guides
- 15. Overdiep, J., Johnsen, E., and **A. Shaw**. 2020. Federal and State Regulations on Selling Fermented Foods. FS 45. https://store.extension.iastate.edu/product/15964
- 16. Overdiep, J., Johnsen, E., and **A. Shaw**. 2020. Federal and State Regulations on Selling Jams and Jellies. FS 47. https://store.extension.iastate.edu/product/15966
- 17. Overdiep, J., Johnsen, E., and A. Shaw. 2020. Federal and State Regulations on Selling Frozen and Dehydrated Foods. FS 46. https://store.extension.iastate.edu/product/15965
- 18. Overdiep, J., Johnsen, E., and **A. Shaw**. 2020. Federal and State Regulations on Selling Pickled Vegetables. FS 48. https://store.extension.iastate.edu/product/15967
- 19. **Shaw, A.**, Savits, J., Lewis Ivey, M., Andrews, A., and Overdiep, J. 2018. FSMA Summary for Hops Growers. FS 44. https://store.extension.iastate.edu/product/15926
- 20. **Shaw, A.,** Andrews, A., Coleman, S., Savits, J., Lewis Ivey, M., and Overdiep, J. 2018. Ensuring Food Safety: Wineries. FS 31. https://store.extension.iastate.edu/product/15671
- 21. **Shaw, A.,** Savits, J., Lewis Ivey, M., Andrews, A., and Overdiep, J. 2018. Ensuring Food Safety in the Vineyard: Table Grapes. FS 32. https://store.extension.iastate.edu/product/15676
- 22. **Shaw, A.,** Savits, J., Lewis Ivey, M., Andrews, A., and Overdiep, J. 2018. Ensuring Food Safety in the Vineyard: Wine Grapes. FS 33. https://store.extension.iastate.edu/product/15677
- 23. Strohbehn, C., Hannan, J., **Shaw, A.,** Naeve, L, and M. Bhullar. 2018. FS 30 Checklist for Retail Purchasing for Local Fresh Produce. https://store.extension.iastate.edu/product/Checklist-for-Retail-Purchasing-of-Local-Produce
- 24. Coleman, S., Andrews, S., Rajagopal, L, and **A. Shaw**. 2018. Cleaning a Walk-in Cooler. https://vimeo.com/user20353817/review/261890330/0e82d166e0

- 25. Coleman, S., Andrews, S., Rajagopal, L, and **A. Shaw**. 2018. Cleaning and Sanitizing Crates. https://vimeo.com/user20353817/review/261887089/4f9eb34403
- 26. Tocco, P., Strohbehn, C., and A. Shaw. 2018. Practical Record Keeping: A tool to aid growers in determination of qualified exemption and documentation.

 https://www.ncrfsma.org/files/page/files/ncr_exemption_worksheet_9x12_updated_2018_sales_numbers_front_page.pdf
- 27. Overdiep, J., Johnsen, E., Nwadike, L., Burrows, R., Garden-Robinson, J., and **A. Shaw**. 2018. Interactive quizzes are on the NCR website for those who make Value Added Products and wish to test their knowledge about FSMA requirements. https://iastate.qualtrics.com/jfe/form/SV 3DDy7C8ZVqqcj0V
- 28. Hultberg, A., Hedeen, L., Strohbehn, C., and **A. Shaw**. 2018. GAP training videos in Hmong (with English subtitles). https://www.youtube.com/channel/UCAkZq Q zWKpaa-ib04akFQ?view as=subscriber
- 29. Andrews, S., Janke, A., Naeve, L., Burrows, R., Bhullar, M., and A. Shaw. 2018. FSMA Produce Safety Rule: Dealing with Wildlife. https://www.ncrfsma.org/files/page/files/ncr_wildlife_guidance_0.pdf
- 30. Bhullar, M., Naeve, L., Nwadike, L., and **A. Shaw**. 2018. FSMA Produce Safety Rule: Dealing with Domestic Animals. https://www.ncrfsma.org/files/page/files/ncr_domesticated_animals_factsheet.pdf
- 31. Bhullar, M., Andrews, A., and **A. Shaw**. 2018. FSMA Compliant On-Farm Thermophilic composting. https://www.ncrfsma.org/files/page/files/ncr bsaao final 0.pdf
- 32. Stull, K., Nwadike, L., Strohbehn, C., Lewis Ivey, M., Burrows, R., Garden-Robinson, J., Ilic, S., and **A. Shaw**. 2018. Farm Stand and U-Pick Produce Operations Safety Best Practices.

 https://www.ncrfsma.org/files/page/files/ncr_farm_stands_and_u_pick_guidance_0.pdf
- 33. Tocco, P., Strohbehn, C., and A. Shaw. 2018. Practical Record Keeping: Pre-Harvest Checklist. https://www.ncrfsma.org/resources-topic
- 34. Andrews, S., and **A. Shaw**. 2018. FSMA Produce Safety Rule Summary for Midwest Orchards. https://www.ncrfsma.org/files/page/files/ncr_orchard_guidance.pdf
- 35. **Shaw**, A., and E. Johnsen. 2018. Bodily Fluid Clean Up on the Farm. https://www.ncrfsma.org/files/page/files/ncr bodily fluid clean up on the farm.pdf
- 36. Overdiep, J., and A. Shaw. 2017. FSMA Human Food Audit Checklist for Food Processors.
 https://ncrfsma.org/files/page/files/HumanFoodSafety%20for%20Processors_update_12_1_9_17.pdf
- 37. Strohbehn, C., Naeve, L., and **A. Shaw**. 2016. FS11 "Make Food Safety a Priority at Your CSA". https://store.extension.iastate.edu/product/Make-Food-Safety-a-Priority-for-Your-CSA
- 38. Strohbehn, C., Naeve, L., and **A. Shaw**. 2016. FS10 "Make Food Safety a Priority at Your Farmers Market Booth". https://store.extension.iastate.edu/Topic/Food-Nutrition-and-Health/Food-Safety.
- 39. **Shaw, A.,** C. Currey and M. Evans. 2015. Keeping your greenhouse fruits and vegetables safe: Part 1: Overview of practical best food safety practices. Greenhouse Grower.
- 40. **Shaw, A.,** C. Currey and M. Evans. 2015. Keeping your greenhouse fruits and vegetables safe: Part 2: Food safety in soilless and hydroponics systems. Greenhouse Grower.

- 41. **Shaw, A.,** C. Currey and M. Evans. 2015. Keeping your greenhouse fruits and vegetables safe: Part 3: Workers and biosecurity. Greenhouse Grower.
- 42. **Shaw, A.,** C. Currey and M. Evans. 2015. Keeping your greenhouse fruits and vegetables safe: Part 4: Sanitation. Greenhouse Grower.
- 43. Strohbehn, C., L. Rajagopal, S. Arendt, A. Shaw, K. Sauer. 2014. HS 007 "Leafy green safety handling posters".
- 44. **Shaw, A.,** C. Strohbehn, and S. Beattie. Revised 2014. SP0328. "Garden produce in floods". Iowa State University Extension Publication.
- 45. **Shaw A.,** C. Strohbehn, J. Meyer, H. Snyder*, L. Wilson, B. Brehm-Stecher, and A. Mendonca. 2013. PM 1974d. "Guide to using liquid sanitizer washes with fruits and vegetables". Iowa State University Extension Publication.
- 46. **Shaw A.**, C. Strohbehn, and J. Meyer.2013. PM1974e. "Food pantry produce donations". Iowa State University Extension Publication.
- 47. Strohbehn C, A. Mendonca, L. Wilson, P. Domoto, M. Smith, B. Brehm-Stecher, and A. Shaw. 2013. PM 1974c. "On-Farm food safety: cleaning and sanitizing guide". Iowa State University Extension Publication.
 - *Shaw Post-Doc, Graduate, or Undergraduate Student

Refereed Presentations (Presentation, Poster, and Abstracts) at Conferences (66)

- 1. Matisko, F., Brashears, M., Thompson, L, Simpson, C., Currey, C., and A. Walla. 2025. Efficacy of Postharvest Chemical Sanitizer Treatments on *Salmonella* Typhimurium in Hydroponically Grown Living Basil. Poster Presentation: International Association for Food Protection. Cleveland, Ohio. July 28th, 2025.
- 2. Akumu, G., Brashears, M., Thompson, L, Simpson, C., Currey, C., and A. Walla. 2025. Survival of *Salmonella* Typhimurium in Nutrient Film Technique and Deep-Water Culture Hydroponic Systems: Case of Basil. Poster Presentation: International Association for Food Protection. Cleveland, Ohio. July 28th, 2025.
- 3. Avaroma, L., Walla, A., Thompson, L. and C. Simpson. 2025. Efficacy of Eugenol Solutions as Seed Treatments for Controlling *Escherichia coli* O157:H7 and *Salmonella* Typhimurium in Basil (*Ocimum basilicum L.*) grown in Controlled Environmental Agricultural. Oral Technical Presentation: International Association for Food Protection. Cleveland, Ohio. July 28th, 2025.
- 4. Barrera, R., Walla, A., Thompson, L., and B. Ancell. 2025. Comparison of weather conditions from California in 2001, 2012, and 2023 in the survival of E. coli O157:H7 during cycle production of romaine lettuce. Poster Presentation: International Association for Food Protection. Cleveland, Ohio. July 28th, 2025.
- 5. Henriquez, L., Walla, A., Brashears, M., and J. Legako. 2025. Evaluation of the effects of root decontamination of Salmonella using lactic acid bacteria in living cilantro (Coriander sativum) grown using the nutrient film technique (NFT). Poster Presentation: International Association for Food Protection. Cleveland, Ohio. July 28th, 2025.
- 6. Allingham, C., Walla, A., Grave, T., Jackson-Davis, A., Henley, S.C., Stuber, J., Meyer, J., and A. Kinchla. 2025. Empowering Education: Creating Inclusive and Engaging Training Programs. Oral Presentation. International Association for Food Protection. Cleveland, Ohio. July 27-30th, 2025.
- 7. Coleman, S., Walla, A., Jackson-Davis, A., and C. Strohm. 2024. From Proposal to Funding: A Comprehensive Guide to Effective Writing and Technical Assistance to

- Master Grant Writing Success. Oral Presentation. Professional Agricultural Workers Conference. November 18th, 2024.
- 8. Walla, A., Jackson-Davis, A., Coleman, S., and C. Strohm. 2024. Empowering Faculty and Staff from Minority Serving Institutions to Successfully Write Grants. Oral Presentation. The First Americans Land-Grant Consortium (FALCON). October 12th, 2024.
- 9. Walla, A., Jackson-Davis, A., Coleman, S., and C. Strohm. 2024. Empowering Faculty and Staff from Minority Serving Institutions to Successfully Write Grants. Poster Presentation. The First Americans Land-Grant Consortium (FALCON). October 12th, 2024.
- 10. Akumu, G., Thompson, L.D., Simpson C., Brashears, M. and A. Shaw. 2024. Evaluation of the in Vitro Potential of *Bacillus Subtillis* and velezensis against *Salmonella* Typhimurium as Candidate Biocontrol Agent. Poster Presentation. International Association for Food Protection. Long Beach, California. July 13-18th, 2024.
- 11. Ajata, L., Thompson, L.D., Simpson[,] C., and A. Shaw. 2024. Surveillance of *E. coli* O157:H7 and *Salmonella Typhimurium* in Hydroponic Systems at Different Electric Conductivity Levels in Nutrient Solution. Poster Presentation. International Association for Food Protection. Long Beach, California. July 13-18th, 2024.
- 12. Barrera, R., G. Akumu, L. Ajata, and A. Shaw. 2024. Survival and Growth of *Salmonella enteritidis* and *Escherichia coli* O157:H7 in Alfalfa and Mung Bean Sprouts. Poster Presentation. International Association for Food Protection. Long Beach, California. July 13-18th, 2024.
- 13. Shaw, A. 2023. Food Safety within Controlled Environment: What we know and what research is needed. American Society for Horticulture Science. Oral Presentation. Orlando, Florida. August 3rd, 2023.
- Nabwiire, L.*, Shaw, A., Nonnecke, G., Talbert, J., and C. Muyanja. 2023. Compliance with Food Safety Standards By Beef Vendors at Butcheries in Kamuli District, Uganda. Poster Presentation. International Association for Food Protection Annual Conference. Toronto, Canada. July 18th, 2023.
- 15. Ghosh, B.*, **Shaw, A.,** Boylston, T., and M. McDaniel. 2023. What Affects the Survival of *E. coli* in Midwest Agricultural Soils? Poster Presentation. International Association for Food Protection Annual Conference. Toronto, Canada. July 18th, 2023.
- 16. Kinchla, A., **Shaw, A.,** Brown, S., Fitzgerald, A., Johnston, L., and J. Williams. 2023. Work Smarter, Not Harder. Webinar. International Association for Food Protection. June 5th, 2023.
- 17. Estrada, E., Ge, M., Masters, Y., Kharel, K., Gutierrez Becerra, L., Cutter, C., Brashears, M.M., Robinson, L., and **A. Shaw**. 2022. Identity Matters: Building a More Inclusive Workplace for Women in Food Safety. Round Table. International Association for Food Protection Annual Conference. Pittsburgh, Pennsylvania. August 2nd, 2022.
- 18. Nabwiire, L.*, **Shaw, A.**, Nonnecke, G., Tarte R. and K. Prusa. 2022. Beef-Handling Practices of Consumers in the U.S. Virgin Islands. Technical Talk. International Association for Food Protection Annual Conference. Pittsburgh, Pennsylvania August 2nd, 2022.

- 19. Ozoh, C.*, and **A. Shaw**. 2021. Food-handling practices of active food delivery service users. Poster Presentation. International Association for Food Protection Annual Conference. 2021
- 20. Nabwiire, L.*, **Shaw, A.**, Nonnecke, G., Minner, D., Johnsen, E., and L. Petersen, 2020. Empowering the US. Virgin Islands food industry through food safety education. Poster Presentation. International Association for Food Protection Annual Conference. Virtual Conference. October 26th, 2020.
- 21. Ozoh, C.*, and **A. Shaw**. 2020. Food delivery service users' food handling practices. Oral Presentation. Partnership for Food Safety Education. September 21st, 2020. Virtual Conference.
- 22. Monge, A.*, Vorst, K., and **A. Shaw.** 2019. Effect of location and design of refrigerated display cases on temperature control of display cases. Poster Presentation. International Association for Food Protection Annual Conference. Louisville, Kentucky. July 23rd, 2019.
- 23. Bhullar, M.*, Monge, A.*, Perry, B.*, Nabwiire, L.*, and **A. Shaw**. 2019. Determining the potential food safety risks associated with dropped produce on floor surfaces in retail stores. Poster Presentation. International Association for Food Protection Annual Conference. Louisville, Kentucky. July 23rd, 2019.
- 24. Perry, B.*, Enderton, A., **Shaw, A.**, Hannan, J., Rajagopal, L., Johnsen, E.*, and S. Coleman. 2019. North Central Region Pre and Post Grower Training Knowledge Assessment. Poster Presentation. International Association for Food Protection Annual Conference. Louisville, Kentucky. July 22nd, 2019.
- 25. Bhullar, M.* and A. Shaw. 2018. Development of user-friendly *E.coli* water testing method for Iowa produce farmers to enhance food safety. Poster Presentation: International Association for Food Protection Annual Meeting. Salt Lake City, Utah. July 9th, 2018.
- 26. Perry, B.*, A. Enderton, C. Strohbehn, A. Shaw, and L. Naeve. 2018. Midwest Region Round Two Needs Assessment of FSMA Produce Safety Rule. Poster Presentation: International Association for Food Protection Annual Meeting. Salt Lake City, Utah. July 9th, 2018.
- 27. **Shaw, A.,** S. Ilic, and M. Ivey. 2018. Food Safety Hydroponic Fruits and Vegetables-What We Do and Don't Know. Symposia. International Association for Food Protection Annual Meeting. Salt Lake City, Utah. July 9th, 2018.
- 28. Strohbehn, C., **A. Shaw**, and L. Naeve. 2017. The Impact of Online Modules on Farmers Market Vendors' and Managers' Knowledge about Good Agriculture Practices. Poster Presentation: 2017 National Extension Tourism Conference. Galveston, TX. August 9th, 2017.
- 29. Overdiep, J.*, **Shaw, A.,** Strohbehn, C., and L. Naeve. 2017. Development of a FSMA Preventive Controls for Human Food Rule Audit Checklist for Fruit and Vegetable Processors. Poster Presentation: International Association for Food Protection Annual Meeting. Tampa, FL. July 10th, 2017
- 30. Perry, B.*, Enderton, A., Strohbehn, C., **Shaw, A.**, and L. Naeve. 2017. North Central Region Produce Needs Assessment of FSMA Produce Safety Rule. Poster Presentation: International Association for Food Protection Annual Meeting. Tampa, FL. July 10th, 2017
- 31. Manu, D.**, Mendonca, A., Daraba, A.*, Dickson, J.S, Sebranek, J., **Shaw, A.**, and A DiSpirito. 2017. Cinnamaldehyde Enhances the Killing Effect of High-pressure

- Processing against *Escherichia coli* O157:H7 and *Salmonella Enterica* in Refrigerated (4°C) Carrot and Berry Juices. Poster Presentation: International Association for Food Protection Annual Meeting. Tampa, FL. July 11th, 2017
- 32. Mendonca, A., Manu, D.**, Wang, F. **, Daraba, A.* and **A. Shaw**. 2017. Antibacterial Efficacy of Geraniol against *Escherichia coli* O157:H7 and *Salmonella enterica* in Carrot Juice and a Mixed Berry Juice Held at 4°C. Poster Presentation: International Association for Food Protection Annual Meeting. Tampa, FL. July 11th, 2017
- 33. Wang, F.**, Mendonca, A., Daraba, A.*, Zhang, Y., Manu, D.*, **Shaw, A.**, and B. Brehm-Stecher. 2017. Influence of Desiccation on Survival and Dry-heat Resistance of Long-term-survival Phase Salmonella Typhimurium and Salmonella PT 30 on Paper Discs and Raw Almonds. Poster Presentation: International Association for Food Protection Annual Meeting. Tampa, FL. July 11th, 2017
- 34. **Shaw, A,** R. McGorrin, D. Reed, C. Callan, and M. Danyluk. 2017. National and Regional FSMA Training Centers: Application of Lessons Learned. Round table Oral Presentation: International Association for Food Protection Annual Meeting. Tampa, FL.
- 35. **Shaw, A,** Oyarzabel, O., Deng, K., and J. Rogers. 2017. Tools to Improve Interactive Food Safety Training for Small Food Facilities. Oral Presentation: International Association for Food Protection Annual Meeting. Tampa, FL. July 10th, 2017
- 36. Arendt, S., K. Sauer, C. Strohbehn, L. Rajagopal, and A. Shaw. 2017. Handling of Leafy Greens in Foodservice Operations Serving Older Americans Before and After Intervention. Consumer Food Safety Education Conference. Washington, DC
- 37. Daraba, A.*, Mendonca, A., Manu, D., Dickson, J. S., Sebranek, J., **Shaw, A.** and A. DiSpirito. 2016. Enhanced destruction of Salmonella enterica in carrot and berry juices by a combination of cinnamaldehyde and high-pressure processing. Poster Presentation: Global Food Safety Conference. San Antonio, TX.
- 38. Strohbehn, C., L. Rajagopal, Arendt, S., K. Sauer, **A. Shaw**, A. Roy, and K. Abdelmassih. 2016. Assessing food safety messages impacting foodservice workers' handling of leafy greens in facilities serving the elderly. Latin American Food Safety Conference. Cancun, Mexico.
- 39. Strohbehn, C., **Shaw**, **A**. and L. Naeve. 2015. Minimizing food safety risk at the farmer's markets through online education for producer vendors and market managers. Poster Presentation: 2015 National Extension Tourism Conference. Galveston, TX.
- 40. Dzubak, J.*, **Shaw, A.**, Strohbehn, C., and L. Naeve. 2015. Food safety for students in school garden. Poster Presentation: School Nutrition Association. Salt Lake City, UT.
- 41. Manu, D.**, Mendonca, A., Wang, F.**, Daraba, A.* and **A. Shaw**. 2015. Antibacterial effectiveness of cinnamaldehyde against *Escherichia coli* O157:H7 and *Salmonella enterica* in carrot and blackberry juice blends held at 4°c. Poster Presentation: International Association for Food Protection Annual Meeting. Portland, OR.
- 42. **Shaw, A.**, Strohbehn, C., Wilson, L., Naeve, L. and P. Domoto. 2015. Assessment of food safety practices for small scale fruit and vegetable growers in the Midwest. Poster Presentation: International Association for Food Protection Annual Meeting. Portland, OR.
- 43. Rajagopal, L., Arendt, S., Sauer, K., Strohbehn, C. and **A. Shaw**. 2015. Development of visual tools for training foodservice workers about safe handling of leafy greens. Poster Presentation: Foodservice Systems Management Education Council. Memphis TN.

- 44. Rajagopal, L., Arendt, S., Sauer, K., Strohbehn, C. and **A. Shaw**. 2015. Development and evaluation of visual-based tools for training foodservice workers about safe handling of leafy greens using a multi-pronged approach. Poster Presentation: International Association for Food Protection Annual Meeting. Portland, OR.
- 45. Daraba, A.*, Drummer, J., Mendonca, A. and **A. Shaw**. 2015. Effectiveness of PRO-SAN, a biodegradable antimicrobial, for killing *Salmonella* enterica and *Escherichia coli* O157:H7 on parsley and green onions used as fresh garnishes. Poster Presentation: International Association for Food Protection Annual Meeting. Portland, OR.
- 46. Roy, A.*, **Shaw, A.**, Rajagopal, L., Strohbehn, C., Arendt, S. and K. Sauer. 2015. Evaluation of intervention using microbial assessment of leafy greens and leafy greens contact surfaces in foodservice operations. Poster Presentation: Institute of Food Technologists. Chicago, IL.
- 47. **Shaw, A.** and C. Strohbehn. 2014. Effective online food safety education for school gardens and university farms. 2014 Consumer Food Safety Education Conference-Together: A Food Safety America. Washington D.C.
- 48. Svoboda, A.* and **A. Shaw.** 2014. Effectiveness of broad-spectrum chemical intervention treatments against foodborne pathogens on artificially inoculated cantaloupe and watermelon. Oral Presentation. International Association for Food Protection Annual Meeting. Indianapolis, IN.
- 49. **Shaw**, A., Rajagopal, L., Strohbehn, C., Sauer, K., and S. Arendt. 2014. Microbial assessment of leafy greens and leafy greens contact surfaces in retail foodservice operations. Poster Presentation: International Association for Food Protection Annual Meeting. Indianapolis, IN.
- 50. **Shaw, A.**, Svoboda, A.*, Mendonca, A. and S. Jung. 2014. Search for a natural intervention against *L. monocytogenes* in Wheatgrass Juice. Poster Presentation: International Association for Food Protection Annual Meeting. Indianapolis, IN.
- 51. Dzubak, J.*, **A. Shaw**, C. Strohbehn and L. Naeve. 2014. Development of an online food safety training for school gardens. Poster Presentation: International Association for Food Protection Annual Meeting. Indianapolis, IN.
- 52. Paik, S., Mendonça, A., Daraba, A.* and **A. Shaw**. 2014. Effect of starvation on resistance of *Escherichia coli* O157:H7 to ultraviolet radiation in 0.85% saline and in apple juice. Poster presentation: Institute of Food Technologists Annual Meeting. New Orleans, LA.
- 53. Daraba, A.*, Mendonca, A., **Shaw**, **A.** and D. Manu. 2014. Viability of *Salmonella enterica* and *Escherichia coli* O157:H7 on romaine lettuce following repeated immersion in sanitizers with or without added exudate. Poster Presentation: Institute of Food Technologists Annual Meeting. New Orleans, LA.
- 54. Daraba, A.*, Adiwijaya, Z., **Shaw**, **A.** and A. Mendonça. 2014. Effectiveness of PROSAN, a biodegradable vegetable wash, for killing *Salmonella enterica* and *Escherichia coli* O157:H7 on the surface of whole cucumbers. Poster Presentation: United Fresh Produce Association, S-294 Science Symposium. Chicago, IL.
- 55. Svoboda A.* and **A. Shaw.** 2013. Effectiveness of chemical intervention treatments against *E. coli* O157:H7, Non-O157 STEC, *Listeria monocytogenes*, and *Salmonella*. Poster Presentation: International Food Protection Annual Meeting.
- 56. **Laury, A.,** Fermin, K., Stull, D., Neuber, A., Chance Brooks, J., Brashears, T., Alvarado, C. and MM. Brashears. 2011. Reduction of methicillin-resistant *Staphylococcus aureus*

- (MRSA) on towels utilizing targeted directional microwave technology. Poster: General Meeting of the American Society for Microbiology.
- 57. **Laury, A.,** Fermin, K., Stull, D., Neuber, A., Chance Brooks, J., Brashears, T., Alvarado, C. and MM. Brashears. 2011. Re-distribution of methicillin-resistant *Staphylococcus aureus* (MRSA) during the laundering of cotton towels. Poster: General Meeting of the American Society for Microbiology.
- 58. **Laury, A.,** Fermin, K., Stull, D., Neuber, A., Chance Brooks, J., Brashears, T., Alvarado C. and MM Brashears. 2011. Reduction of *Salmonella* on jalapeño peppers, peanuts, and dry dog food utilizing targeted directional microwave technology. Poster: Conference of International Food Protection Annual Meeting.
- 59. **Laury**, **A.**, Echeverry, AE., Gragg, SE., Alvarado, MA., Brown, AL., Narvaez-Bravo, C., Sunkara, P. and MM. Brashears. 2010. Electrostatically sprayed lactic acid bacteria as a pre-harvest intervention strategy for reduction of *Escherichia coli* O157:H7 on spinach plant. Poster: Conference of International Food Protection Annual Meeting.
- 60. Echeverry, AE., Miller, MF., Jackson, T., Laury, A., Narvaez-Bravo, C., Chaney, WE., Brown, AL., Sunkara, P., Pond, AR. and MM. Brashears. 2010. In-Plant validation of hot water wash and lactic acid as interventions to control microbial pathogens in beef carcasses as part of a HACCP reassessment plan. Poster: Reciprocal American Meat Science Association.
- 61. **Laury, A.**, Alvarado, MA., Brooks, JC. and MM. Brashears. 2009. Inhibition of *Escherichia coli* O157:H7 and *Salmonella* in ground beef using modified atmosphere packaging systems. Poster: Reciprocal American Meat Science Association.
- 62. **Laury**, **A.** and MM. Brashears. 2009. Survival of lactic acid bacteria in various water sources and sandy loam soil. Poster: International Food Protection Annual Meeting.
- 63. **Laury, A.**, Alvarado, MV., Nace, G., Brooks, JC. and MM. Brashears. 2008. Evaluation of the reduction of *E.coli* O157:H7 and *Salmonella* spp. by spraying a lactic acid based antimicrobial product (Beefxide[®]) on USDA select beef tips. Poster: International Food Protection Annual Meeting.
- 64. Laury, A., Loneragan, G., Platt, T., Branham, L., Ives, S., Engler, M., Thompson, D. and MM. Brashears. 2006. Changes in indicator populations due to therapeutic use of injectable antibiotics in feedlot cattle. Poster: International Food Protection Annual Meeting.
- 65. **Laury**, **A.**, and J. Sebranek. 2006. Use of carbon monoxide combined with carbon dioxide for modified atmosphere packaging of fresh pre-rigor pork sausage to improve shelf life. Poster: International Food Protection Annual Meeting.
- 66. Laury, A., and J. Sebranek. 2006. Evaluation of modified atmosphere packaging with carbon monoxide and carbon dioxide for fresh pre-rigor pork sausage and fresh post-rigor pork sausage. Poster: Reciprocal American Meat Science Association.

*Shaw Post-Doc, Graduate, or Undergraduate Student

Non-Refereed Presentations (Presentation, Poster, and Abstracts) (60)

- 1. Walla, A. and G. Akumu. 2025. Food Safety Best Practices in Hydroponics. Session title "Out of the pot into the water-Hydroponic herb production". July 12, 2025. Cultivate 2025.
- 2. Walla, A., Jackson-Davis, A., Coleman, S., and C. Strohm. 2025. Empowering Faculty and Staff from Minority Serving Institutions to Successfully Write Grants. Oral

- Presentation. Southern Regional FSMA Center Meeting. Savannah, GA. January 11th, 2025.
- 3. Walla, A., Jackson-Davis, A., Coleman, S., and C. Strohm. 2024. Empowering Faculty and Staff from Minority Serving Institutions to Successfully Write Grants. Oral Presentation. Southern Regional FSMA Center Meeting. Long Beach, California. July 13th, 2024.
- 4. Coleman, S., Walla, A., Strohm, C., and A. Jackson-Davis. 2024. Learning from Rejection. Webinar. Food Safety Outreach Grant Writing Webinar Series. May 22nd, 2024.
- 5. Walla, A., Irlbeck, E., Strohm, C., Coleman, S., and A. Jackson-Davis. 2024. Broadening Participation/Transferability Education/Outreach/Extension. Webinar. Food Safety Outreach Grant Writing Webinar Series. May 21st, 2024.
- 6. Jackson-Davis, A., Harper, M., Coleman, S., Walla, A., and C. Strohm. 2024. Budget And Budget Justification. Webinar. Food Safety Outreach Grant Writing Webinar Series. May 20th, 2024.
- 7. Jackson-Davis, A., Woods, K., Coleman, S., Walla, A., and C. Strohm. 2024. Meaningful Stakeholder And MSI Collaborator Involvement. Webinar. Food Safety Outreach Grant Writing Webinar Series. May 17th, 2024.
- 8. Strohm, C., Walla, A., Coleman, S., and A. Jackson-Davis. 2024. Creating An Impactful Logic Model. Webinar. Food Safety Outreach Grant Writing Webinar Series. May 16th, 2024.
- 9. Strohm, C., Walla, A., Coleman, S., and A. Jackson-Davis. 2024. Developing A Work/Research Plan Defining Metrics For Success. Webinar. Food Safety Outreach Grant Writing Webinar Series. May 15th, 2024.
- 10. Jackson-Davis, A., Mendonca, A., Coleman, S., Walla, A., and C. Strohm. 2024. How To Highlight Novelty/ Innovation/Uniqueness. Food Safety Outreach Grant Writing Webinar Series. May 14th, 2024.
- 11. Coleman, S., Walla, A., Strohm, C., and A. Jackson-Davis. 2024. How to Fill Out the Required Grant Forms: Current and Pending, Conflict of Interest, Bio Sketch, Statement of Work. Webinar. Food Safety Outreach Grant Writing Webinar Series. May 13th, 2024.
- 12. Coleman, S., Walla, A., Strohm, C., and A. Jackson-Davis. 2024. How to Fill Out the Required Grant Forms: Data Management Plan, Management Plan, Facilities, Equipment and Resources, Mentor Plan. Webinar. Food Safety Outreach Grant Writing Webinar Series. May 10th, 2024.
- 13. Walla, A., Strohm, C., Coleman, S., and A. Jackson-Davis. 2024. How to Fill Out the Required Grant Forms: Instruction Document SF424. Webinar. Food Safety Outreach Grant Writing Webinar Series. May 9th, 2024.
- 14. Strohm, C., Walla, A., Coleman, S., and A. Jackson-Davis. 2024. A well-crafted First Page and White paper is important for discussion with the program officer. Webinar. Food Safety Outreach Grant Writing Webinar Series. May 8th, 2024.
- 15. Strohm, C., Walla, A., Coleman, S., and A. Jackson-Davis. 2024. Extracting Crucial Information from the RFP and using review criteria to create the flow and structure of a compelling proposal. Webinar. Food Safety Outreach Grant Writing Webinar Series. May 7th, 2024

- 16. Walla, A., Williams, J., Strohm, C., Coleman, S., and A. Jackson-Davis. 2024. What USDA NIFA Grants Are Available? Webinar. Food Safety Outreach Grant Writing Webinar Series. May 6th, 2024.
- 17. Walla, A., Gonzales, A., Strohm, C., Coleman, S., and A. Jackson-Davis. 2024. Budget and Budget Justification. Webinar. Food Safety Outreach Grant Writing Webinar Series. January 16th, 2024.
- 18. Walla, A., Jackson-Davis, A., Coleman, S., and C. Strohm. 2024. Empowering Faculty and Staff from Minority Serving Institutions to Successfully Write Grants. Oral Presentation. Southern Regional FSMA Center Meeting. Savannah, GA. January 11th, 2024.
- 19. Walla, A., Strohm, C., Coleman, S., and A. Jackson-Davis. 2024. Creating an Impactful Logic Model; Learning from Rejection. Webinar. Food Safety Outreach Grant Writing Webinar Series. January 9th, 2024.
- 20. Walla, A., Strohm, C., Coleman, S., and A. Jackson-Davis. 2024. Meaningful stakeholder involvement; Broadening participation/transferability education/outreach/extension. Webinar. Food Safety Outreach Grant Writing Webinar Series. January 8th, 2024.
- 21. Walla, A., Strohm, C., Coleman, S., and A. Jackson-Davis. 2024. How to highlight novelty/innovation/uniqueness; White Paper (Sales Pitch). Webinar. Food Safety Outreach Grant Writing Webinar Series. January 7th, 2024.
- 22. Walla, A., Strohm, C., Coleman, S., and A. Jackson-Davis. 2024. Developing a work/research plan defining metrics for success. Webinar. Food Safety Outreach Grant Writing Webinar Series. January 6th, 2024.
- 23. Walla, A., Strohm, C., Coleman, S., and A. Jackson-Davis. 2024. The importance of a well-crafted First Page. Webinar. Food Safety Outreach Grant Writing Webinar Series. January 5th, 2024.
- 24. Walla, A., Strohm, C., Coleman, S., and A. Jackson-Davis. 2023. Extracting Crucial Information from the RFP. Flow and structure of a compelling proposal. Webinar. Food Safety Outreach Grant Writing Webinar Series. December 15th, 2023.
- 25. Johnsen E. and **A. Shaw**. 2023. Update for North Central Region Center for Training, Extension, and Technical Assistance. FSOP Project Director Meeting, Orlando, Florida. May 2023
- 26. **Shaw, A.** and E. Johnsen. 2023. Update for North Central Region Center for Training, Extension, and Technical Assistance. Western FSMA Center Meeting. Prosser, WA. May 2023
- 27. **Shaw, A.** and E. Johnsen. 2023. Update for North Central Region Center for Training, Extension, and Technical Assistance. Southern Region Annual Conference. Savannah, Georgia. January 2023.
- 28. Johnsen, E. and **A. Shaw**. 2023. Update for North Central Region Center for Training, Extension, and Technical Assistance. Northeast FSMA Center. Boston, Massachusetts. January 2023.
- 29. Johnsen, E. and A. Shaw. 2023. Update for North Central Region Center for Training, Extension, and Technical Assistance. North Central Region Annual Conference. Eau Claire, Wisconsin. March 2023.

- 30. Johnsen, E.* and A. Shaw. 2022. Update for North Central Region Center for Training, Extension, and Technical Assistance. Western FSMA Center Meeting. New Mexico. May 2022
- 31. **Shaw, A.** and E. Johnsen*. 2022. Update for North Central Region Center for Training, Extension, and Technical Assistance. FSOP Project Director Meeting, Orlando, Florida. May 2022
- 32. Johnsen, E.* and A. Shaw. 2022. Update for North Central Region Center for Training, Extension, and Technical Assistance. Northeast FSMA Center. Virtual. January 2022.
- 33. Johnsen, E.* and A. Shaw. 2022. Update for North Central Region Center for Training, Extension, and Technical Assistance. Southern Region Annual Conference. Virtual. January 2022.
- 34. **Shaw, A.,** Enderton, A. and E. Johnsen*. 2021. North Central Region Center for FSMA Training, Extension, and Technical Assistance: Impact of Produce Safety Alliance Grower Trainings in the North Central Region. National Association for State Department of Agriculture National Consortium for Food Safety. Virtual. December 7th-10th, 2021
- 35. Johnsen, E.*, and **A. Shaw**. 2021. NCR FSMA Expectations for FSOP Awardees. USDA Food Safety Outreach Program Grant Kickoff Webinar for FY 2021 FSOP Awardees. October 19th, 2021
- 36. Hannan, J., **Shaw, A.,** Rajagopal, R. Enderton, A., and E. Johnsen*. 2020. Update for North Central Regional Center for Training, Extension, and Technical Assistance. National Association for State Department of Agriculture National Consortium for Food Safety. Virtual. December 9th-11th, 2020
- 37. Hannan, J., **Shaw, A.,** Rajagopal, R. Enderton, A., and E. Johnsen*. 2020. Update for North Central Regional Center for Training, Extension, and Technical Assistance. Food Safety Outreach Program Directors Meeting. Virtual. August 18th-19th, 2020
- 38. Hannan, J., **Shaw, A.,** Naig, A., and A. Enderton. 2020. Update for North Central Region Center for Training, Extension, and Technical Assistance. Western FSMA Center Meeting. Virtual. May 2020
- 39. Hannan, J., Shaw, A., Naig, A., and A. Enderton. 2020. Update for North Central Region Center for Training, Extension, and Technical Assistance. NDFMGA and Local Foods Conference. Bismark, North Dakota. February 2020.
- 40. **Shaw, A.,** Hannan, J., Naig, A., and A. Enderton. 2020. Update for North Central Region Center for Training, Extension, and Technical Assistance. Northeast FSMA Center Legal Meeting. Boston, Massachusetts. February 2020.
- 41. **Shaw, A**. 2020. Advanced Produce Safety Alliance Training. Southern Region Integrated Produce Safety Conference. January 28th-February 1st, 2020. Florida
- 42. Johnsen, E.*, **Shaw, A.,** Hannan, J., Naig, A., and A. Enderton. 2020. Update for North Central Region Center for Training, Extension, and Technical Assistance. Southern Region Annual Conference. Savannah, Georgia. January 2020.
- 43. Bhullar, M.* and **A. Shaw**. 2019. Retail Produce Safety Drop. North Central Regional Center FSMA Annual Conference. Indianapolis, Indiana. June 10-12th, 2019
- 44. Hannan, J., Shaw, A., Rajagopal, R. Enderton, A., and E. Johnsen*. 2019. Update for North Central Regional Center for Training, Extension, and Technical Assistance. Western FSMA Center Meeting. Portland, Oregon. May 21st, 2019

- 45. **Shaw, A.,** Hannan, J., Rajagopal, R. Enderton, A., and E. Johnsen*. 2019. Update for North Central Regional Center for Training, Extension, and Technical Assistance. Oral Presentation: NECEF Meeting. Albany, New York. February 4-6th, 2019
- 46. **Shaw, A.** 2019. FSMA Produce, Processing, and Holding. Oral Presentation: Ohio Produce Network. Dublin, Ohio. January 15-16th, 2019.
- 47. Bhullar, M.* and **A. Shaw**. 2019. Retail Produce Safety Drop. Poster Presentation: North Central Regional Center FSMA Annual Conference. Indianapolis, Indiana. June 10-12th, 2019
- 48. **Shaw, A,** Hannan, J., Rajagopal, R. Enderton, A., and E. Johnsen*. 2018. Update for North Central Regional Center for Training, Extension, and Technical Assistance. Oral Presentation. USDA Food Safety Outreach Program Regional Director Meeting. Blacksburg, Virginia. August 20-22nd, 2018.
- Shaw, A, Hannan, J., Rajagopal, R. Enderton, A., and E. Johnsen*. 2018. Update for North Central Regional Center for Training, Extension, and Technical Assistance. Southern Region Integrated Produce Safety Conference. Atlanta, Georgia. November 13-14th, 2018.
- 50. **Shaw, A,** Hannan, J., Rajagopal, R. Enderton, A., and E. Johnsen*. 2018. Update for North Central Regional Center for Training, Extension, and Technical Assistance. Local Foods Conference. Brookings, South Dakota. November 1-2nd, 2018.
- 51. Mendonça, A., Daraba, A.*, Woods, F., **Shaw**, **A.**, Ortiz, A., and G. Rodriguez. 2016. Effect of PRO-SAN, a Biodegradable Vegetable Wash, on Pathogen Viability and Selected Quality Characteristics in Fresh Basil and Cilantro. Poster presentation: United Fresh Produce Association, S-294 Science Symposium. Chicago IL
- 52. **Shaw, A.** 2016. Impact of Food Safety Modernization Act on the Grains Industry. GEAPS and Grain Journal, Webinar.
- 53. **Shaw, A.** 2016. Food Safety Concerns in Hydroponics Production. State Fruit and Vegetable Field Day. University of Arkansas. Rodgers, AR, Webinar
- 54. **Shaw, A**. 2014. Food safety in bulk grains: Developing food safety and recordkeeping plans. USDA ARS Soft Wheat Quality Laboratory 60th Research Review Conference. Wooster, OH.
- 55. **Shaw, A.** 2014. Food Safety Modernization Act. Opening Workshop. GEAPS. Omaha, NE
- 56. **Shaw, A.** 2013. Food Safety Modernization Act and production impact on suppliers. Rousselot Inc. & Sonac USA. Denver, CO.
- 57. **Shaw, A.** 2013. Food safety in production environment. Midwest Poultry Association. Minneapolis, MN.
- 58. **Shaw**, **A.** 2012. Assessment of basic food safety knowledge by farmer market participants. International Food Protection Association Annual Meeting. Providence, RI.
- 59. **Shaw, A.** 2012. Ohio State University short course on fresh produce safety- "Regulatory Issues". OSU, Department of Food Engineering. Columbus, OH.
- 60. **Shaw, A.** 2012. Creating food safety and recordkeeping plans for the Food Safety Modernization Act. GEAPS Exchange 2012. Minneapolis, MN.

*Shaw Post-Doc, Graduate, or Undergraduate Student

1. **Laury**, **A.**, A. Echeverry and MM Brashears. 2009. Fate of Escherichia coli O157:H7 in Meat, p. 31-53. In Fidel Toldra (ed.), Safety of Meat and Processed Meat. Springer Science, New York.

<u>Invited Research and Extension Presentations (38)</u>

- 1. Walla, A. and G. Akumu. 2025. Food Safety Research Recap: How do foodborne pathogens survive in NFT and DWC systems?. May 6th, 2025. Virtual Presentation with Indoor Ag Café.
- 2. Shaw, A. FDA Products: Research and Outreach. May 17th, 2023. Tyson Foods.
- 3. **Shaw, A.** Produce Safety. Virtual Presentation. February 15, 2023 Virtual Texas Food Safety & Defense Task Force Meeting. 125 participants
- 4. Shaw, A. CEA Food Safety What we know and should know?. March 6th, 2023. Virtual Presentation. USDA ARS Beltsville. 25 participants
- 5. **Shaw, A.** May 28th 2020. From Local Favorites to Corporate Chains Retail food industry, how has COVID-19 changed food safety?. Virtual Educational Series by RCA Powered Up
- 6. Shaw, A. 2018. Food Safety on the Farm. St. Thomas US Virgin Islands.
- 7. Shaw, A. 2018. Food Safety on the Farm. St. Croix US Virgin Islands.
- 8. **Shaw, A,** Hannan, J., and M. Bhullar. 2017. Update on FSMA Regulations. Iowa State University's annual Fruit and Vegetable Field. Ames, IA.
- 9. Andrews, A., Wiemerslage, T., and **A. Shaw.** 2017. Update in Food Safety Research. 17th Annual Iowa Organic Conference. Iowa City, IA.
- 10. **Shaw, A.** 2017. U.S. food laws for meat, poultry, seafood, and non-protein foods 2017 Food and Human Health Symposium. Dalian Polytechnic University. Dalian, China. June 2017
- 11. **Shaw, A.** 2017. Produce Sanitizer and FSMA Update. Illinois Specialty Crop Conference. Springfield, IL
- 12. **Shaw, A.** 2016. Update in Food Safety Research.16th Annual Iowa Organic Conference. Iowa City, IA.
- 13. **Shaw, A.** 2016. Update on Food Safety Modernization Act regulations. Iowa Fruit and Vegetable Growers Association Annual Conference. Ankeny, IA.
- 14. **Shaw, A.** 2016. Food Safety Rules in the United States. The conference theme is "Enhancing Quality and Safety of Livestock and Livestock Products. Ethiopian Society of Animal Production annual conference. Addis Ababa, Ethiopia.
- 15. **Shaw, A.** 2015. Food Safety Modernization Act: Overview. Iowa Department of Inspection and Appeals. Cedar Rapids, IA.
- 16. **Shaw, A.** 2015. Food Safety Modernization Act: Qualified Individuals. Eurofins. Ankeny, IA.
- 17. **Shaw, A.** 2015. Farmers Market Food Safety Online Program. Iowa Farmers Market Association Annual Conference. Des Moines, IA.
- 18. **Shaw, A.** 2015. Update on FSMA Regulations. Iowa Fruit and Vegetable Growers Association Annual Conference. Ankeny, IA.
- 19. **Shaw, A.** 2014. Update in Food Safety Research.14th Annual Iowa Organic Conference. Iowa City, IA.
- 20. **Shaw, A.** 2014. Impact of new food safety regulations on your farm. Women Food & Ag Network Conference. Fairfield, IA.

- 21. **Shaw, A**. 2014. Food safety in the U.S. International Agricultural Trade and Food Safety Professional. Ames, IA.
- 22. **Shaw**, **A.** 2014.Traceability and biosecurity. Iowa Fruit and Vegetable Growers Association Annual Conference. Ankeny, IA.
- 23. **Shaw, A.** 2013. Food Safety Modernization Act impact to milk producers. Iowa Dairy Association. Des Moines, IA.
- 24. **Shaw, A.** 2013. Food safety farm to school. Farm to School Collaboration-Planting Seeds for Growth. Lake Iowa Nature Center. Ladora, IA.
- 25. **Shaw, A.** 2013. FSMA and on farm food safety. Midwest Aronia Association Annual Conference. West Des Moines, IA.
- 26. Shaw, A. 2013. Food safety training workshop. General Mills. Ankeny, IA.
- 27. **Shaw, A.** 2013. Food safety update: Risk and consequences. Iowa Fruit and Vegetable Growers Association Annual Conference. Ankeny, IA.
- 28. **Shaw, A.** 2012. Food Safety Modernization Act impact on local foods. Putting the Pieces Together: Building Partnerships in the Iowa Food System Conference. Ames, IA.
- 29. **Shaw, A.** 2012. From the perspective of bacteria—issues associated with toxicology, Toxicology Program Welcome and Orientation speaker. Ames, IA.
- 30. **Shaw, A.** 2012. On-Farm food safety risks. Local Food System Conference. Indian Hills, IA
- 31. **Shaw, A.** 2012. On-Farm food safety. Midwest Aronia Association Annual Conference. West Des Moines, IA.
- 32. **Shaw, A.** 2012. Overview to Food Safety Modernization Act within animal feed industry. Dubuque Farmers Market Association. Dubuque, IA.
- 33. **Shaw, A.** 2012. Food safety in bulk grains: Developing food safety and recordkeeping plans. AAI Showcase and Conference, Grain and Feed Forum. Des Moines, IA.
- 34. **Shaw, A.** 2012. Food Safety: Prevention is key. Northeast Iowa Food & Farm Expo. Calmar, IA.
- 35. **Shaw**, **A.** 2012. Overview of Food Safety Modernization Act and personnel hygiene within popcorn industry. Jolly Time Popcorn. Sioux City, IA.
- 36. **Shaw, A.** 2012. Food safety and how it will impact your operation. Iowa Fruit and Vegetable Growers Association Annual Conference. Ankeny, IA.
- 37. **Shaw-Laury, A.** 2012. Which knowledge we gain from our teaching endeavor for food microbiology education: The experience of training agriculture teachers. 9th Congress of Slovenian Biochemical Society/5th Congress of Slovenian Microbiological Society/3rd CEFORM. Maribor, Slovenia.
- 38. **Shaw, A.** 2011. Overview of the Food Safety Modernization Act. Iowa Food Safety Task Force Meeting. Des Moines, IA.

GRANTS AND PROJECT FUNDINGS

SUMMARY OF FUNDING of total sponsored projects directly to the laboratory is \$5,614,371 from August 2011 to January 2025. The total grant awards were \$27,098,664 from August 2011 to January 2025.

Project Role	Number of Funded	Intramural	Extramural	Total Funding
	Projects			

PI	21	\$56,945	\$4,183,460	\$4,240,405
Co-PI	21	\$16,220	\$1,357,746	\$1,373,966
Total	42	\$73,165	\$5,541,206	\$5,614,371

	Grantor	Role	Other	Project	Total \$ Awarded
Project Title			Investigators	Duration	(Allocated to Shaw
					Lab)
					I=Internal
					E=External
From seed to plate: Improving	USDA NIFA	CO-PI	Amalaradjou,	2024-2028	\$3,500,000
produce safety for organic	OREI		M.A.		(\$243,257.91)
production using natural biocontrol			Shaw, A., Patel		(E)
strategies.			J.,		
			Darby, H.,		
			Jackson Davis,		
			A., Callahan, C.,		
			Silva, J.,		
			Sideman, R.,		
			McKeag, L.,		
			Travares, K.,		
			Rodrigues, C.,		
			Upadhyaya, I.,		
			Ghimire, S.,		
			Upadhyay, A., Venkitanarayana		
			n, K., Xiao, Z.,		
			Fiala, N.,		
			Richard, N.,		
			Stoltzfus, J.,		
			Sellars, B.,		
			Wright, K.		
Co-P: Grant focuses on improving	g organic produc	e food sat		se of biologica	l controls. This is a
multidisciplinary team with research					
of the proposal.				1 7	8 8
Review of the Evidence-Based	USDA Food	PI	Lawver, D.	2023-2025	\$600,000
Food Safety Education Program	and Nutrition		Brashears, T.		(\$600,00)
called Produce Safety University	Services		Rayfield, J.		(E)
			Strohbehn, C.		
PI; Project Director: Grant focuses	on the review of t	he Produce	Safety University	curriculum that	seeks to educate state
agencies, food service directors and					
program since it began.90% concept	; 80% writing and	editing of	the grant proposal.		
Empowering Minority Serving	USDA NIFA	PI	Shaw, A.,	2023-2026	\$300,000
Institutions Food Safety specialists	Food Safety		Jackson-Davis,		(\$300,00)
to write successful Food Safety	Outreach		A., Coleman, S.		(E)
Outreach Program grants through	Program				
education, training and technical					
assistance					
PI; Project Director: Grant focuses of					
increase the success rate. Multi-insti		Alabama 1	A&M University and	l Iowa State Un	iversity. 90% concept;
75% writing and editing of the grant					
Developing a Quantitative	Foundation for	Co-PI	Brashears, M.	2023-2024	\$398,588
Salmonella baseline and	Meat and		Sanchez, M.		(\$19,929)
characterizing Salmonella isolates	Poultry		Miller, M.		(E)
from ground beef in the United	Research and		Shaw, A.		

	T	1	T	1	
States	Education		Legako, J.		
			Dogan, O.		
			Calle, A.		
			Awosile, B.		
			Gragg, S.		
			Phebus, R.		
			Shariat, N.		
			Harhay, D.		
Co-PI: Grant is the first national base	eline study for gro	und beef in	over 20 years. Mul-	ti-institutional g	rant with Kansas State
University, University of Georgia, U	Inited States Meat	Animal Re	search center, and Fo	ood Safety Net	Services. Myself and a
PhD graduate students are leading th					
Beef flavor characterization of	National	Co-PI	Woerner, D.	2023-2025	\$149,500
gluteus medius, biceps femoris,	Cattlemen's		Shaw, A.		(\$7,175)
and semimembranosus during	Beef				(E)
extended aging	Association				
CO-PI: Grant will focus on adding v		scles of be	ef to increase econor	nic value. Lam:	assisting with the food
spoilage and safety portions of the gr		.50105 01 00	or to merease econor	ine varae. I am	assisting with the root
Identifying the food safety	USDA NIFA	PI	Shaw, A.,	2023-2024	\$50,000
research and extension gaps within	Agriculture	11	Gibson, K.,	2023 2027	(\$50,000)
the controlled environmental	and Food		Millner, P., Ilic,		(\$30,000) (E)
agricultural fruit and vegetable	Research		S., Callahan, C.,		(L)
	Initiative				
industry	Conference		Amalaradjou, MA		
	Grant		MA		
DID : (D) (C) C		C 4	. 1 . 1	1 -4 1	1'1 - 4 11 1
PI; Project Director; Conference for					
environmental agriculture producti					
Vermont, University of Connecticut,					
CEA HERB: Controlled	USDA NIFA	Co-PI	Lopez, R.; Behe,	2022-2026	\$3,482,251
Environment	Specialty		B.; Boldt, J.;		(\$189,734)
Agriculture Herb Extension and	Crops		Cloyd, R.;		(E)
Research Base	Research		Currey, C.;		
	Initiative		Hausbeck, M.;		
			Faust, J.; Rihn,		
			A.; Runkle, E.;		
			Shaw, A.;		
			Walters, K.;		
			Whipker, B.		
Co-PI; Leading microbiology research			_		•
samples from the participating CE					
Davis, University of Kentucky; Mu					
10% writing and editing of the grant		ncept desig			bjectives)
Ensuring Food Safety Competency	USDA Food	PI	E. Johnsen,	2021-2024	\$799, 757
of Produce Growers and	Safety		A. Enderton,		(\$799,757)
Processors in the NCR Through	Outreach		D. Fillius,		(E)
Expanded Collaboration with	Program		K.		
Diversified Populations			Krishnamurthy,		
1			A. Deering,		
			L. Nwadike,		
			P. Tocco,		
			A. Hultberg,		
			C. Borgwordt,		
			B. Chaves-		
			Elizondo,		
			J. Garden-		ļ
			Robinson,		

					<u>, </u>
			S. Ilic,		
			R. Burrow,		
			K. Krokowski		
PI; Project Director; Supervised P&					
educators and 80 active partners of					
quantitative and qualitative data ass					
evaluation of the center and events					
Purdue University, Kansas State Un					
North Dakota State University, Th					versity of Wisconsin-
Madison and Michigan State Univer					Φ2 000 000
Integrating vegetable, poultry, and	USDA	Co-PI	Nair, A. (PI),	2019-2024	\$2,000,000
cover cropping practices to	National		E. Bobeck,		(\$163,000)
enhance resiliency in organic	Institute of		A. Plastina,		(E)
production systems	Food and		D. Ahn,		
	Agriculture:		K. Delate,		
	Organic		M. McDaniel,		
	Agriculture		M. Pitesky,		
	Research and		M. Williams,		
	Extension		D. Gonthier,		
	Initiative		J. Mitchell,		
			D. Niemeier,		
C DI I 1' ' 1' 1	1'41 D. I.	D' 1	J. Dickson	1 11 . 1.1	1 0 44
Co-PI; Leading microbiology reseated grant; Multi-institutional grant;					
between animal science, horticulture			cept; 10% writing ar	id editing of th	e grant proposal (73%
concept design, writing and editing of	PAR-16-137	PI	A NT.:	2021-2022	¢05,000
Developing a Coordinated Effort		PI	A. Naig,	2021-2022	\$85,000
within Iowa to Implement an Infrastructure, Education,	Funding of the FDA		S. Coleman, T. Wiemerslage		(\$85,000)
Technical Assistance, and	Cooperative		A. Enderton		(E)
Inventory Program in Alignment	Agreement PSR		A. Eliderton		
with the FDA's Produce Safety	(Subcontract of				
Rule	\$1.8 Million				
Kule	through Iowa				
	Department of				
	Agriculture and				
	Land				
	Stewardship)				
PI; Project Director; Supervised P&S		eroraduate	students: Manage a 1	esearch team o	f six faculty members
Shaw analyzed all quantitative and c	± .	_			-
external grant; Multi-disciplinary be					
75% concept; 90% writing and editing				managem	1304 50101100,
Continued Successful	USDA Food	Co-PI/	J. Hannan (PI),	2018-	\$799,757
Implementation of FSMA in the	Safety Outreach	PI as	R. Choudhary,	2022* (no	(\$171,616)
North Central Region through	Program	of June	A. Enderton,	cost	(E)
Adoption of a Systems Approach		2021	A. Topaloff,	extension	
and Stakeholder Engagement			M. Singh,	from 2021-	
			L. Nwadike,	2022)	
			A. Hultberg,		
			T. Eaton,		
			S. Browning,		
			J. Garden-		
			Robinson,		
			R. Burrows,		
			E. Silva,		
			S. Ilic		

Co-PI/PI; This is the renewal of my 2018 Farm Bill which prohibited rep	eat PI on these gra	nts. As a r	esult, the new PI and	l I will jointly r	un the NCR Center.
The PI left the university in June 202 position, and undergraduate students	; Manage a researc	h team of 1	5 faculty members	and 26 advisory	board members.
Shaw analyzed all quantitative and q evaluation of center work. Competiti					
Purdue University, Kansas State Uni					
North Dakota State University, The	Ohio State Univers	ity, South 1	Dakota State Univer	sity, University	of Wisconsin-
Madison and Michigan State Univer					
Assessing the food safety knowledge gained from	Agriculture and Natural	PI	Coleman, S. (Co-PI)	2019-2020	\$10,000 (\$10,000)
underserved refugee populations in	Resources		M. Bhullar,		(I)
Iowa	Extension and		B. Perry,		
	Outreach		J. Hannan,		
			D. Fillus,		
			A. Naig,		
			T. Wiemerslage,		
PI; Competitive internal grant; Shaw Nutrition and Horticulture to comple					
Water testing for Produce growers	Agriculture and	PI	Bhullar, M.,	2019-2020	\$9,906
in Iowa	Natural		J. Hannan,		(\$9,906)
	Resources		D. Fillus,		(I)
	Extension and		A. Naig,		
	Outreach		T. Wiemerslage, S. Coleman		
PI; Competitive internal grant; Shaw	l , lah analyzed all m	icrobial sa		t: 75% writing	and editing of the
grant proposal	ndo anaryzed an m	nerooiar sa	impres. 10070 concep	71, 7570 WITHING	and carring of the
Agritourism Destination Safety	Great Plains	Collab	R. Hansen,	2017-2019	\$30,000
and Health Best Practices	Center for	orator	K. Meyer,		(\$500)
Workshop	Agricultural		S. Hoyle		(E)
C 11 1	Health	1	(A. Shaw)		1. A 11 1
Collaborator; Part of the Extension t Agriculture, Food Science, and Hort					
proposal (100% of concept design, w				writing and cd	iting of the grant
Educating Iowans about the	Human	PI	N/A	2016-2017	\$2,365
importance of water food safety	Science				(\$2,365)
when growing fruits and	Extension and				(I)
vegetables	Outreach				
PI; Competitive internal grant; Shaw grant proposal	·				
Developing a Coordinated Effort	Iowa	PI	L. Naeve,	2016-2021	\$1,180,000
within Iowa to Implement an	Department of		S. Coleman,		(\$1,180,000)
Infrastructure, Education, Technical Assistance, and	Agriculture and Land		A. Naig, J. Hannan,		(E)
Inventory Program in Alignment	Stewardship		T. Wiemerslage		
with the FDA's Produce Safety	(subcontract of		1 icinorsiage		
Rule	\$2.8 million				
	FDA PAR-16-				
	137)		<u> </u>		<u> </u>
PI; Project Director; Supervised P&S faculty members. Shaw analyzed all research. Competitive external grant	quantitative and qu ; Multi-disciplinary	ıalitative da between l	ata associated with k norticulture; value ac	nowledge and l	oehavioral change
management and food science; 75%					\$050,000
North Central Region through	U.S. Food and	PI	C. Strohbehn,	2016-2019	\$950,000

A 1 4' C C 4 A 1	D		T M		(E)
Adoption of a Systems Approach	Drug Administration:		L. Naeve,		(E)
and Stakeholder Engagement			J. Hannan,		
Framework	National		M. Hosier,		
	Institutes of		A. Enderton,		
	Health		A. Topaloff,		
			M. Singh,		
			L. Nwadike,		
			M. Schermann,		
			T. Eaton,		
			S. Browning,		
			J. Garden-		
			Robinson,		
			R. Burrows,		
			E. Silva,		
			J. LeJeune	L	
PI; Project Director; Supervised P&					
faculty members and 30 extension p					
grant; multi-institutional grant with					
Minnesota, Lincoln University, University, University					
South Dakota State University, Univ		n-Madison	and Michigan State	University. 759	% concept; 90%
writing and editing of the grant prop		,			
Food Safety Innovations and	USDA NIFA	Co-PI	Luo, Y., (P.D),	2016-2021	\$3,760,813
Preventive Controls during Fresh	Standard		X. Millners,		(\$167,402)
and Fresh-Cut Produce Washing,	Research and		L. Nou,		(E)
Packing, and Retail Display	Extension		G. Bourouriba,		
	Project		M. Thompson,		
			3.6.00 . 11		
			M. Cantwell,		
Co-PI; Lead of extension componen	t; Supervised a PhI) student, a	K. Vorst	undergraduates	. Developed public
Co-PI; Lead of extension componen website; Shaw lab analyzed all quan organizational between federal partr 10% concept; 5% writing and editin outreach plan)	ititative and qualitations (USDA and FD	tive data of OA), produc	K. Vorst MS student, and 2 extension objective e industry (10 partr	es. Competitive ners) and acader	internal grant; Multi- nia (6 universities);
website; Shaw lab analyzed all quan organizational between federal partr 10% concept; 5% writing and editin outreach plan)	ntitative and qualitate the state of the grant property of the grant property.	tive data of OA), productorsal (75% c	K. Vorst MS student, and 2 extension objective e industry (10 partr oncept design, writ	es. Competitive ners) and acader ing and editing	internal grant; Multi- nia (6 universities); of extension and
website; Shaw lab analyzed all quan organizational between federal partr 10% concept; 5% writing and editin outreach plan) Development of a planning and	ititative and qualitations (USDA and FD	tive data of OA), produc	K. Vorst MS student, and 2 extension objective e industry (10 partr	es. Competitive ners) and acader	internal grant; Multi- mia (6 universities); of extension and
website; Shaw lab analyzed all quan organizational between federal partr 10% concept; 5% writing and editin outreach plan) Development of a planning and decision tool for the Iowa regional	titative and qualitative and qualitative and FE gof the grant proposition of the grant propositi	tive data of OA), productorsal (75% c	K. Vorst MS student, and 2 extension objective e industry (10 partr oncept design, writ Krejci, C. (PI),	es. Competitive ners) and acader ing and editing	internal grant; Multi- mia (6 universities); of extension and \$49,948 (\$500)
website; Shaw lab analyzed all quan organizational between federal partr 10% concept; 5% writing and editin outreach plan) Development of a planning and	atitative and qualitative and qualitative and FD and FD g of the grant proportion Leopold Center	tive data of OA), productorsal (75% c	K. Vorst MS student, and 2 extension objective e industry (10 partr oncept design, writ Krejci, C. (PI),	es. Competitive ners) and acader ing and editing	internal grant; Multi- mia (6 universities); of extension and
website; Shaw lab analyzed all quan organizational between federal partr 10% concept; 5% writing and editin outreach plan) Development of a planning and decision tool for the Iowa regional	titative and qualitatives (USDA and FE g of the grant proposed Leopold Center for Sustainable Agriculture at Iowa State	tive data of OA), productorsal (75% c	K. Vorst MS student, and 2 extension objective e industry (10 partr oncept design, writ Krejci, C. (PI),	es. Competitive ners) and acader ing and editing	internal grant; Multi- mia (6 universities); of extension and \$49,948 (\$500)
website; Shaw lab analyzed all quan organizational between federal partr 10% concept; 5% writing and editin outreach plan) Development of a planning and decision tool for the Iowa regional food hub logistics network	titative and qualitatives (USDA and FE g of the grant proposed Leopold Center for Sustainable Agriculture at Iowa State University	cive data of PA), produce osal (75% c	K. Vorst MS student, and 2 extension objective e industry (10 partroncept design, write Krejci, C. (PI), A. Shaw	es. Competitive ners) and acadering and editing 2015-2017	internal grant; Multi- mia (6 universities); of extension and \$49,948 (\$500) (I)
website; Shaw lab analyzed all quan organizational between federal partr 10% concept; 5% writing and editin outreach plan) Development of a planning and decision tool for the Iowa regional food hub logistics network Co-PI; Lead extension microbiologic	titative and qualitative and qualitative and qualitative and FD g of the grant proposition of th	Co-PI Co-PI crnal grant;	K. Vorst MS student, and 2 extension objective e industry (10 partroncept design, write Krejci, C. (PI), A. Shaw	es. Competitive ners) and acadering and editing 2015-2017	internal grant; Multi- mia (6 universities); of extension and \$49,948 (\$500) (I)
website; Shaw lab analyzed all quan organizational between federal partr 10% concept; 5% writing and editin outreach plan) Development of a planning and decision tool for the Iowa regional food hub logistics network Co-PI; Lead extension microbiologiscience; 5% concept; 5% writing an	Leopold Center for Sustainable Agriculture at Iowa State University st; Competitive inted editing of the gran	cive data of PA), productosal (75% cosal (75% cosal grant; and proposal	K. Vorst MS student, and 2 extension objective e industry (10 partroncept design, write trees, C. (PI), A. Shaw Multi-disciplinary	es. Competitive ders) and acader ing and editing 2015-2017	internal grant; Multi- mia (6 universities); of extension and \$49,948 (\$500) (I) ngineering and food
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website; Shaw lab analyzed all quan organizational between federal partr 10% concept; 5% writing and editin outreach plan) Development of a planning and decision tool for the Iowa regional food hub logistics network Co-PI; Lead extension microbiologiscience; 5% concept; 5% writing an Integrating crops and livestock in a system approach to enhance	Leopold Center for Sustainable Agriculture at Iowa State University st; Competitive inted dediting of the gran USDA National	cive data of PA), productosal (75% cosal (75% cosal grant; and proposal	K. Vorst MS student, and 2 extension objective e industry (10 partr oncept design, writ Krejci, C. (PI), A. Shaw Multi-disciplinary Delate, K. (PI), B Heins,	es. Competitive ders) and acader ing and editing 2015-2017	internal grant; Multi- mia (6 universities); of extension and \$49,948 (\$500) (I) gineering and food \$1,924,000 (\$100,000)
website; Shaw lab analyzed all quan organizational between federal partr 10% concept; 5% writing and editin outreach plan) Development of a planning and decision tool for the Iowa regional food hub logistics network Co-PI; Lead extension microbiologiscience; 5% concept; 5% writing an Integrating crops and livestock in a system approach to enhance organic farm stability, safety,	Leopold Center for Sustainable Agriculture at Iowa State University st; Competitive inted editing of the gran USDA National Institute of	cive data of PA), productosal (75% cosal (75% cosal grant; and proposal	K. Vorst MS student, and 2 extension objective e industry (10 partr oncept design, writ Krejci, C. (PI), A. Shaw Multi-disciplinary Delate, K. (PI), B Heins, P. Pagliari,	es. Competitive ders) and acader ing and editing 2015-2017	internal grant; Multi- mia (6 universities); of extension and \$49,948 (\$500) (I) gineering and food \$1,924,000
website; Shaw lab analyzed all quan organizational between federal partr 10% concept; 5% writing and editin outreach plan) Development of a planning and decision tool for the Iowa regional food hub logistics network Co-PI; Lead extension microbiologiscience; 5% concept; 5% writing an Integrating crops and livestock in a system approach to enhance organic farm stability, safety,	titative and qualitative and qualitatives (USDA and FE g of the grant proposed by the gr	cive data of PA), productosal (75% cosal (75% cosal grant; and proposal	K. Vorst MS student, and 2 extension objective e industry (10 partroncept design, write Krejci, C. (PI), A. Shaw Multi-disciplinary Delate, K. (PI), B Heins, P. Pagliari, C. Chase,	es. Competitive ders) and acader ing and editing 2015-2017	internal grant; Multi- mia (6 universities); of extension and \$49,948 (\$500) (I) gineering and food \$1,924,000 (\$100,000)
website; Shaw lab analyzed all quan organizational between federal partr 10% concept; 5% writing and editin outreach plan) Development of a planning and decision tool for the Iowa regional food hub logistics network Co-PI; Lead extension microbiologiscience; 5% concept; 5% writing an Integrating crops and livestock in a system approach to enhance organic farm stability, safety,	titative and qualitative and qualitatives (USDA and FE g of the grant proposed of the grant proposed in the gr	cive data of PA), productosal (75% cosal (75% cosal grant; and proposal	K. Vorst MS student, and 2 extension objective e industry (10 partroncept design, write Krejci, C. (PI), A. Shaw Multi-disciplinary Delate, K. (PI), B Heins, P. Pagliari, C. Chase, J. Hayden,	es. Competitive hers) and acader ing and editing 2015-2017	internal grant; Multi- mia (6 universities); of extension and \$49,948 (\$500) (I) gineering and food \$1,924,000 (\$100,000)
website; Shaw lab analyzed all quan organizational between federal partr 10% concept; 5% writing and editin outreach plan) Development of a planning and decision tool for the Iowa regional food hub logistics network Co-PI; Lead extension microbiologiscience; 5% concept; 5% writing an Integrating crops and livestock in a system approach to enhance organic farm stability, safety,	Leopold Center for Sustainable Agriculture at Iowa State University St; Competitive inted editing of the gran USDA National Institute of Food and Agriculture: Organic	cive data of PA), productosal (75% cosal (75% cosal grant; and proposal	K. Vorst MS student, and 2 extension objective e industry (10 partroncept design, write Krejci, C. (PI), A. Shaw Multi-disciplinary Delate, K. (PI), B Heins, P. Pagliari, C. Chase,	es. Competitive hers) and acader ing and editing 2015-2017	internal grant; Multi- mia (6 universities); of extension and \$49,948 (\$500) (I) gineering and food \$1,924,000 (\$100,000)
website; Shaw lab analyzed all quan organizational between federal partr 10% concept; 5% writing and editin outreach plan) Development of a planning and decision tool for the Iowa regional food hub logistics network Co-PI; Lead extension microbiologiscience; 5% concept; 5% writing an Integrating crops and livestock in a	Leopold Center for Sustainable Agriculture at Iowa State University st; Competitive inted editing of the gran USDA National Institute of Food and Agriculture: Organic Agriculture	cive data of PA), productosal (75% cosal (75% cosal grant; and proposal	K. Vorst MS student, and 2 extension objective e industry (10 partroncept design, write Krejci, C. (PI), A. Shaw Multi-disciplinary Delate, K. (PI), B Heins, P. Pagliari, C. Chase, J. Hayden,	es. Competitive hers) and acader ing and editing 2015-2017	internal grant; Multi- mia (6 universities); of extension and \$49,948 (\$500) (I) gineering and food \$1,924,000 (\$100,000)
website; Shaw lab analyzed all quan organizational between federal partr 10% concept; 5% writing and editin outreach plan) Development of a planning and decision tool for the Iowa regional food hub logistics network Co-PI; Lead extension microbiologiscience; 5% concept; 5% writing an Integrating crops and livestock in a system approach to enhance organic farm stability, safety,	Leopold Center for Sustainable Agriculture at Iowa State University st; Competitive inted editing of the gran USDA National Institute of Food and Agriculture: Organic Agriculture Research and	cive data of PA), productosal (75% cosal (75% cosal grant; and proposal	K. Vorst MS student, and 2 extension objective e industry (10 partroncept design, write Krejci, C. (PI), A. Shaw Multi-disciplinary Delate, K. (PI), B Heins, P. Pagliari, C. Chase, J. Hayden,	es. Competitive hers) and acader ing and editing 2015-2017	internal grant; Multi- mia (6 universities); of extension and \$49,948 (\$500) (I) gineering and food \$1,924,000 (\$100,000)
website; Shaw lab analyzed all quan organizational between federal partr 10% concept; 5% writing and editin outreach plan) Development of a planning and decision tool for the Iowa regional food hub logistics network Co-PI; Lead extension microbiologiscience; 5% concept; 5% writing an Integrating crops and livestock in a system approach to enhance organic farm stability, safety,	Leopold Center for Sustainable Agriculture at Iowa State University st; Competitive inted editing of the gran USDA National Institute of Food and Agriculture: Organic Agriculture Research and Extension	cive data of PA), productosal (75% cosal (75% cosal grant; and proposal	K. Vorst MS student, and 2 extension objective e industry (10 partroncept design, write Krejci, C. (PI), A. Shaw Multi-disciplinary Delate, K. (PI), B Heins, P. Pagliari, C. Chase, J. Hayden,	es. Competitive hers) and acader ing and editing 2015-2017	internal grant; Multi- mia (6 universities); of extension and \$49,948 (\$500) (I) gineering and food \$1,924,000 (\$100,000)
website; Shaw lab analyzed all quan organizational between federal partr 10% concept; 5% writing and editin outreach plan) Development of a planning and decision tool for the Iowa regional food hub logistics network Co-PI; Lead extension microbiologiscience; 5% concept; 5% writing an Integrating crops and livestock in a system approach to enhance organic farm stability, safety, resilience	Leopold Center for Sustainable Agriculture at Iowa State University st; Competitive inted editing of the gran USDA National Institute of Food and Agriculture: Organic Agriculture Research and Extension Initiative	cive data of PA), produce osal (75% corplete of Co-PI or	K. Vorst MS student, and 2 extension objective e industry (10 partr oncept design, writ Krejci, C. (PI), A. Shaw Multi-disciplinary Delate, K. (PI), B Heins, P. Pagliari, C. Chase, J. Hayden, J. Moyer	es. Competitive hers) and acader ing and editing 2015-2017 between food en 2014-2018	internal grant; Multi- mia (6 universities); of extension and \$49,948 (\$500) (I) Ingineering and food \$1,924,000 (\$100,000) (E)
website; Shaw lab analyzed all quan organizational between federal partr 10% concept; 5% writing and editin outreach plan) Development of a planning and decision tool for the Iowa regional food hub logistics network Co-PI; Lead extension microbiologiscience; 5% concept; 5% writing an Integrating crops and livestock in a system approach to enhance organic farm stability, safety, resilience Co-PI; Lead microbiologist; Shaw la	Leopold Center for Sustainable Agriculture at Iowa State University st; Competitive inted editing of the gran USDA National Institute of Food and Agriculture: Organic Agriculture Research and Extension Initiative ab analyzed all mice	cive data of PA), produce osal (75% cosal (75% cosal (75% cosal co	K. Vorst MS student, and 2 extension objective e industry (10 partr oncept design, writ Krejci, C. (PI), A. Shaw Multi-disciplinary Delate, K. (PI), B Heins, P. Pagliari, C. Chase, J. Hayden, J. Moyer	es. Competitive ners) and acader ing and editing 2015-2017 between food er 2014-2018	internal grant; Multinia (6 universities); of extension and \$49,948 (\$500) (I) Ingineering and food \$1,924,000 (\$100,000) (E)
website; Shaw lab analyzed all quan organizational between federal partr 10% concept; 5% writing and editin outreach plan) Development of a planning and decision tool for the Iowa regional food hub logistics network Co-PI; Lead extension microbiologiscience; 5% concept; 5% writing an Integrating crops and livestock in a system approach to enhance organic farm stability, safety, resilience Co-PI; Lead microbiologist; Shaw leads to the control of the	Leopold Center for Sustainable Agriculture at Iowa State University st; Competitive inted editing of the grant USDA National Institute of Food and Agriculture: Organic Agriculture Research and Extension Initiative ab analyzed all microdale Institute; Multiple of the grant Initiative ab analyzed all microdale Institute; Multiple of the grant Initiative ab analyzed all microdale Institute; Multiple of the grant Initiative and Initiative and Initiative and Initiative Init	cive data of PA), produce osal (75% cosal (75% cosal (75% cosal grant; ot proposal Co-PI	K. Vorst MS student, and 2 extension objective e industry (10 partr oncept design, writ Krejci, C. (PI), A. Shaw Multi-disciplinary Delate, K. (PI), B Heins, P. Pagliari, C. Chase, J. Hayden, J. Moyer	es. Competitive ners) and acader ing and editing 2015-2017 between food er 2014-2018 deral grant; Muscience, horticul	internal grant; Multinia (6 universities); of extension and \$49,948 (\$500) (I) Ingineering and food \$1,924,000 (\$100,000) (E)
website; Shaw lab analyzed all quan organizational between federal partr 10% concept; 5% writing and editin outreach plan) Development of a planning and decision tool for the Iowa regional food hub logistics network Co-PI; Lead extension microbiologiscience; 5% concept; 5% writing an Integrating crops and livestock in a system approach to enhance organic farm stability, safety, resilience Co-PI; Lead microbiologist; Shaw lawith University of Minnesota and R 25% concept; 25% writing and editi	Leopold Center for Sustainable Agriculture at Iowa State University st; Competitive inted editing of the grant USDA National Institute of Food and Agriculture: Organic Agriculture Research and Extension Initiative ab analyzed all microdale Institute; Multiple of the grant Initiative ab analyzed all microdale Institute; Multiple of the grant Initiative ab analyzed all microdale Institute; Multiple of the grant Initiative and Initiative and Initiative and Initiative Init	cive data of PA), produce osal (75% cosal (75% cosal (75% cosal grant; ot proposal Co-PI	K. Vorst MS student, and 2 extension objective e industry (10 partr oncept design, writ Krejci, C. (PI), A. Shaw Multi-disciplinary Delate, K. (PI), B Heins, P. Pagliari, C. Chase, J. Hayden, J. Moyer	es. Competitive ners) and acader ing and editing 2015-2017 between food er 2014-2018 deral grant; Muscience, horticul	internal grant; Multinia (6 universities); of extension and \$49,948 (\$500) (I) Ingineering and food \$1,924,000 (\$100,000) (E)
website; Shaw lab analyzed all quan organizational between federal partr 10% concept; 5% writing and editin outreach plan) Development of a planning and decision tool for the Iowa regional food hub logistics network Co-PI; Lead extension microbiologiscience; 5% concept; 5% writing an Integrating crops and livestock in a system approach to enhance organic farm stability, safety, resilience Co-PI; Lead microbiologist; Shaw leads to the control of the	Leopold Center for Sustainable Agriculture at Iowa State University st; Competitive inted editing of the grant USDA National Institute of Food and Agriculture: Organic Agriculture Research and Extension Initiative ab analyzed all microdale Institute; Multiple of the grant Initiative ab analyzed all microdale Institute; Multiple of the grant Initiative ab analyzed all microdale Institute; Multiple of the grant Initiative and Initiative and Initiative and Initiative Init	cive data of PA), produce osal (75% cosal (75% cosal (75% cosal grant; ot proposal Co-PI	K. Vorst MS student, and 2 extension objective e industry (10 partr oncept design, writ Krejci, C. (PI), A. Shaw Multi-disciplinary Delate, K. (PI), B Heins, P. Pagliari, C. Chase, J. Hayden, J. Moyer	es. Competitive ners) and acader ing and editing 2015-2017 between food er 2014-2018 deral grant; Muscience, horticul	internal grant; Multinia (6 universities); of extension and \$49,948 (\$500) (I) Ingineering and food \$1,924,000 (\$100,000) (E)

. 1 12	ъ .		D.D. '. 1		(#12.000)
promote soil quality,	Region		D. Brainard,		(\$12,800)
environmental sustainability, food	Sustainable		C. Chase,		(E)
safety, and profitability in cucurbit	Agriculture		C. Bregendahl		
cropping systems	Research and				
	Education				
C- N. I 1 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1	Program	1.:.1	1 C	1 4 . Mr	14: :
Co-PI; Lead microbiologist; Shaw la with Michigan State University; Mu					
editing of the grant proposal (100%					pt, 23% writing and
Establishing a standard of identity	USDA-	Co-PI	Wilson, L.(PI)	2014-2016	\$23,558
for jams and jellies made from		C0-F1	T. Boylston	2014-2010	-
aronia berries	Specialty Crop Block Grant		1. Boyiston		(\$10,000) (E)
Co-PI; Lead microbiologist; Shaw la		robiol somn	las Compatitiva fad	laral aranti Mul	
between food quality, food sensory a				% writing and e	editing of the grant
proposal (100% concept design, wri			•	2014-2016	¢40.259
Market recovery options for	USDA	PI	J. Hannan,	2014-2016	\$40,258
berries damaged by spotted winged	Federal-State		C.Strohbehn,		(\$40,258)
drosophila	Marketing		C.Chase,		(E)
	Improvement		R.Hansen,		
	Program		L.Wilson,		
DT T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 : 0 1	1 0	C. Bregendahl		
PI; Lead microbiologist; Manage a t					
all microbial samples. Competitive f					
microbiology; 75% concept; 75% w	riting and editing o	f the grant p	proposal (100% cond	cept design, wr	iting and editing of
microbial objectives)	I read :	l nr	l ~ ~ · · ·	T = 0.1.1 = 0.1.5	T 42 4 000
Minimizing food safety risk at the	USDA-	PI	C. Strohbehn,	2014-2016	\$24,000
farmers' markets through online	Agricultural		L. Naeve		(\$24,000)
education for producer vendors	marketing				(E)
and market managers	Service:				
	Specialty Crop				
	Block Grant				
PI; Lead extension microbiologist; S					
Developed 1/3 of the educational cu					
agriculture, hospitality management					
Ensuring the safety of organic	United Natural	Co-PI	K. Delegate	2014-2015	\$5,000
apples and grapes through	Foods				(\$3,000)
ecologically-based plant protection	Foundation				(E)
	1 1 1 1 1	1.1	1 0	1	1.1 11 11
Co-PI; Lead microbiologist; Shaw la					
between horticulture and food science		U% writing	and editing of the gi	rant proposal (l	00% concept design,
writing and editing of microbial obje		G 77	D (211 D)	2014	Φ40.7751
Food safety, economics, and	Leopold Center	Co-PI	Pattillo, D.A.	2014	\$48,751
environmental impacts of	for Sustainable		(PI),		(\$6,720)
aquaponics in Iowa	Agriculture at		KA. Rosentrater		(I)
adambamas m 10.44					
aquapomes m 10.11	Iowa State				
	Iowa State University				
Co-PI; Lead microbiologist; Shaw la	Iowa State University b analyzed all mic				
Co-PI; Lead microbiologist; Shaw la between forestry, agricultural engine	Iowa State University ab analyzed all miceering and food scio	ence; 33% c	oncept; 50% writing		
Co-PI; Lead microbiologist; Shaw la between forestry, agricultural engine (100% concept design, writing and e	Iowa State University ab analyzed all micering and food sciediting of microbial	ence; 33% c objectives)	oncept; 50% writing	g and editing of	the grant proposal
Co-PI; Lead microbiologist; Shaw la between forestry, agricultural engine (100% concept design, writing and e Mitigating risks of foodborne	Iowa State University ab analyzed all micering and food sciediting of microbial USDA	ence; 33% c	Arendt, S., (PI)		\$424,846
Co-PI; Lead microbiologist; Shaw la between forestry, agricultural engine (100% concept design, writing and e Mitigating risks of foodborne illness associated with handling	Iowa State University ab analyzed all micering and food sciediting of microbial USDA National	ence; 33% c objectives)	Arendt, S., (PI) C. Strohbehn,	g and editing of	\$424,846 (\$113,000)
Co-PI; Lead microbiologist; Shaw labetween forestry, agricultural engine (100% concept design, writing and e Mitigating risks of foodborne illness associated with handling leafy greens in retail foodservice	Iowa State University ab analyzed all micering and food sciediting of microbial USDA National Institute of	ence; 33% c objectives)	Arendt, S., (PI) C. Strohbehn, L. Rajagopal,	g and editing of	\$424,846
Co-PI; Lead microbiologist; Shaw labetween forestry, agricultural engine (100% concept design, writing and e Mitigating risks of foodborne illness associated with handling leafy greens in retail foodservice establishments serving aging	Iowa State University ab analyzed all mice ering and food scie diting of microbial USDA National Institute of Food and	ence; 33% c objectives)	Arendt, S., (PI) C. Strohbehn,	g and editing of	\$424,846 (\$113,000)
Co-PI; Lead microbiologist; Shaw labetween forestry, agricultural engine (100% concept design, writing and e Mitigating risks of foodborne illness associated with handling leafy greens in retail foodservice	Iowa State University ab analyzed all micering and food sciediting of microbial USDA National Institute of Food and Agriculture	ence; 33% c objectives) Co-PI	Arendt, S., (PI) C. Strohbehn, L. Rajagopal, K. Sauer	g and editing of 2013-2015	\$424,846 (\$113,000) (E)

			riting and editing o		
Development of an online food safety training for employees of university farms and school gardens	Leopold Center for Sustainable Agriculture at Iowa State University	PI	C. Strohbehn, L. Naeve	2013	\$28,391 (\$28,391) (I)
PI; Lead extension microbiologist; S faculty members. Developed 33% of	upervised a MS str the educational cu	ırriculum. (Competitive interna	l grant; Multi-d	isciplinary between
value added agriculture, hospitality r proposal	nanagement and fo	ood science	; 33% concept; /5%	6 writing and ec	liting of the grant
Best practices food safety and food defense for retail foodservices	Iowa Department of Inspection and Appeals (USDA Grant)	Co-PI	C. Strohbehn (PI), J. Meyer	2013	\$8,000 (\$8,000) (E)
Co-PI; Lead extension microbiologis disciplinary between hospitality man					
Borlaug FtF Fellow from Ethiopia (Food Safety- table eggs)	USDA/ Foreign Agricultural Services	Co-PI	D. Bjelland	2012-2015	\$29,825.40 (\$21,700) (E)
PI; Competitive federal grant; Super 100% writing and editing of the gran		ellow; Shav	w lab analyzed all n	nicrobial sample	es. 100% concept;
Statewide on-farm food safety program	USDA- Agricultural marketing Service: Specialty Crop	PI	C. Strohbehn, P. Domoto, L. Wilson, L. Naeve, M. Smith	2012-2015	\$23,939 (\$23,939) (E)
PI; Lead extension microbiologist; S Developed 20% of the educational coagriculture, hospitality management	urriculum. Compe	titive extern	nal grant; Multi-disc	ciplinary between	en value added
Food safety curriculum for the bulk agricultural product supply	National Institutes of Health	Co-PI	C. Hurburgh (PI), J. Roth, G. Mosher	2012-2014	\$1,483,522 (\$40,000) (E)
Co-PI; Lead microbiologist; Shaw la between forestry, agricultural engine (100% concept design, writing and e	ering and food sci	ence; 33%	oles. Competitive in concept; 50% writing		
Managing wholesale production, marketing, financial, and human risks for Iowa specialty crop farmers	Family Farmed.org (USDA Grant)	PI	N/A	2012-2013	\$5,000 (\$5,000) (E)
PI; Competitive external grant; Deve throughout Iowa and surrounding sta					
Making Iowa the healthiest state: Iowa State University extension and outreach/Hy-Vee collaboration	Iowa State University VPEO Strategic Initiatives	Co-PI	Litchfield, R. (PI). S. Francis, R .Martin	2012-2015	\$222,516 (\$7,500) (I)
Co-PI; Lead extension microbiologis Competitive internal grant; Multi-dis the grant proposal	Proposal st; POS committee				

Integration of local food system development projects – Family Food Tour of NW Iowa and the Iowa Food System Working Group (IFSWG)	Iowa State University VPEO Strategic Initiatives Proposal	Co-PI	Craig, C. (PI), T.Wiemerslage, A Nair, C. Strohbehn, J. Gatewood, L. Naeve, J. Toering, R.Wrage, A.Vandehaar, J. Hannan, C. Bregendahl, J. Lawrence	2012-2013	\$202,812 (\$1,000) (I)
Co-PI; Lead extension microbiologis economics, horticulture, hospitality i					
grant proposal Equipping Iowa State University Extension specialist with food safety knowledge to impact Iowans lives	Heddleson Faculty Grant	PI	N/A	2012-2013	\$1,800 (\$1,800) (I)
PI; Competitive internal grant; Deve				ed with 10 diffe	rent extension offices
throughout Iowa. 100% concept; 100				1	
Food Safety/Good agricultural practices training for extension educators	Iowa Sustainable Agriculture Research & Education	PI	A. Larson	2012	\$4,483 (\$4,483) (I)
PI; Lead extension microbiologist; Edisciplinary between value added ag					
Food Safety and Defense for	Iowa	PI	C. Strohbehn,	2012	\$8,000
Direct Sales: What Entrepreneurs	Department of	ГІ	J. Meyer	2012	(\$8,000)
need to know about regulations	Inspection and Appeals (USDA Grant)		3. Meyer		(I)
PI; Lead extension microbiologist; D		the education	onal curriculum. Con	mpetitive extern	al grant; Multi-
disciplinary between hospitality man	agement and food				
Cross contamination of <i>E.coli</i>	North	PI	B. Nonnecke	2012	\$6,990
O157:H7 from handler's hand s to	American				(\$6,990)
strawberries during collection and	Strawberry				(E)
survivability during growth	Growers Association				
PI; Lead microbiologist; Supervised commodity grant; Multi-disciplinary grant proposal (100% concept design	between horticult	ure and foo	d science; 50% cond		

Funded Positions from Grants (4)

Dates	Name	Role	Comments
2017-2024	Ellen Johnsen	Project Coordinator for FDA North Central	Education and
		Regional Center for FSMA grant	Programming Expert
2021-2022	Teresa Wiemerslage, M.S.	Project Coordinator/ Food Safety Extension and Outreach for FDA/ Iowa Department of Agriculture and Land Stewardship Cooperative Agreement	50% time paid by grant
2018-2021	Dan Fillius, M.S.	Project Coordinator/ Food Safety Extension	Food Safety Expert

		and Outreach for FDA/ Iowa Department of	
		Agriculture and Land Stewardship Cooperative	
		Agreement	
2017-2018	Dr. Smaranda Andrews	Project Coordinator/ Food Safety Extension and Outreach for FDA/ Iowa Department of Agriculture and Land Stewardship Cooperative Agreement	Organic Food Safety Expert

SUPERVISORY POSITIONS (6)

Dates	Name	Role	Comments
2021-2022	Andre Salazar,	Food safety extension specialist paid by ANR	Education Extension
	M.S.	Extension and Outreach	Specialist I
2017-2022	Ellen Johnsen	Project Coordinator for FDA North Central	Education Extension
		Regional Center for FSMA grant	Specialist III
2018-2021	Dan Fillius, M.S.	Project Coordinator/ Food Safety Extension	Education Extension
		and Outreach for FDA/ Iowa Department of	Specialist II
		Agriculture and Land Stewardship Cooperative	
		Agreement	
2017-2018	Dr. Smaranda	Project Coordinator/ Food Safety Extension	Extension Lecturer
	Andrews	and Outreach for FDA/ Iowa Department of	
		Agriculture and Land Stewardship Cooperative	
		Agreement	
2013-2017	Dr. Aura Daraba	Post-Doctoral Research Associate	Associate Professor at
			Dunarea de Jos
			University of Galaţi,
			Romania
2012-2014	Heather Snyder,	Food Safety Extension and Outreach	Current Head of Food
	M.S.		Microbiology
			Laboratory for Hormel

STUDENT MENTORSHIP

Service to Graduate Student Research

Student	Degree	Role	Graduation Date			
Texas Tech University (12 Total; 8 as Major Professor: 3 PhD and 4 MS and 1 PhD withdrawal; 4 as Committee						
Member: 1 PhD and 1 MS). G	Member: 1 PhD and 1 MS). Graduated: As major professor: 0 PhD, 1 MS; As Committee Member: 1 PhD and 1					
MS)						
Doreen Edebe	PhD Animal Science	Major Professor	May 2026			
Fabien Matsiko	PhD Animal Science	Major Professor	Dec. 2025			
Grace Akumu	PhD Animal Science	Major Professor	Dec. 2025			
Erin Castelli	PhD Animal Science	Committee Member	Aug. 2025			
Laura Araujo	MS Food Science	Major Professor	May 2025			
Liliana Gutierrez	MS Food Science	Major Professor	May 2025			
Taylor Klatt	MS Ag Education	Committee Member	Aug. 2025			
Ronny Barrera	MS Food Science	Major Professor	May 2025			
Laura Ajata	MS Food Science	Major Professor	Dec. 2024			
Nadira Espinoza Rock	MS Animal Science	Committee Member	Aug. 2024			
Alexandra Salinas	MS Agriculture Education and	Committee Member	May 2024			
	Communication					
Philip Musoke	PhD Animal Science	Major Professor	Withdrawal 2023			

	otal; 14 as Major Professor: 5 PhD and 8 MS; as Committee Member: 11 PhD a). Graduated: As
Baidini Ghosh	MS Food Science	Major Professor	August 2023
Chinwendu Ozoh	PhD Food Science	Major Professor	Withdrawal 2022
Lillian Nabwiire	PhD Food Science	Major Professor	May 2023
Michael Cropp	PhD Meat Science	Committee Member	May 2023
Spencer Winn	MS Hospitality Management	Committee Member	May 2023
Justin Anast	PhD Microbiology	Committee Member	December 2022
Bridget Perry	PhD Food Science	Major Professor	August 2022
Shalini Wijeratne	MS Food Science	Committee Member	August 2022
Warren Johnson	MS Apparel, Educational Studies,	Committee Member	December 2021
	and Hospitality Management		
Emalie Thomas-Popo	PhD Food Science	Committee Member	December 2021
William (Bill) Knapp	PhD Apparel, Educational Studies, and Hospitality Management	Committee Member	December 2021
Moriah Bilenky	PhD Horticulture	Committee Member	May 2021
Boya Luo	MS Apparel, Educational Studies, and Hospitality Management	Committee Member	May 2020
Lillian Nabwiire	MS Food Science and Horticulture	Major Professor	May 2020
Manreet Bhullar	PhD Food Science	Major Professor	December 2019
Ana Lorena Monge	PhD Food Science	Major Professor	December 2019
Samuel Kiprotich	MS Food Science	Committee Member	December 2019
Jacques Overdiep	MS Food Science	Major Professor	May 2018
Niraja Shivalingaiah	MS Food Science	Major Professor	May 2018
Nathan Eylands	MS Horticulture at University of	Committee Member	December 2018
_ ,	Arkansas		
Joshua Nazareth	MS Food Science	Major Professor	May 2017
Amber Kastler	MS GPIDEA-Dietetics Masters of	Committee Member	May 2017
	Food and Consumer Science		
John Fox	MS Food Science	Committee Member	May 2017
Kelsey Choquette	MS Food Science	Committee Member	May 2017
Fei Wang	PhD Microbiology	Committee Member	May 2017
Amy Henry	MS Agricultural Education	Committee Member	May 2017
Bella Chan	PhD Apparel, Educational Studies,	Committee Member	May 2017
	and Hospitality Management		
Dawei Li	MS Apparel, Educational Studies,	Committee Member	May 2017
	and Hospitality Management		
William L. Solomon	PhD Apparel, Educational Studies,	Committee Member	May 2016
	and Hospitality Management		
David Manu	PhD Food Science	Committee Member	May 2016
Cathleen Taylor	MS Agricultural Education	Committee Member	May 2016
Mani Kumar Badvela	PhD Meat Science	Committee Member	May 2016
Kun Xie	MS Food Engineering	Committee Member	May 2016
Sai Elumalai	MS Food Science	Major Professor	May 2015
Amber Roy (Noterman)	MS Food Science	Major Professor	May 2015
John Dzubak	MS Food Science	Major Professor	May 2015
Amanda Svoboda	PhD Food Science	Major Professor	May 2015
Megan Myers	MS Meat Science	Committee Member	May 2015
Cynthia Dawso Van Druff	PhD Apparel, Educational Studies, and Hospitality Management	Committee Member	May 2011

Service to Undergraduate Student Research

Student	Degree	Role	Dates
Student	Dogree	11010	Dates

Texas Tech University (7)		
Chisom Emeka	Biology	Research	Fall 2024
Elizabeth Garcia	Pre-Vet	Research	Spring 2024- present
Brandon Arcinierga	Pre-Med	Research	Spring 2024- present
Paulina Gonzelez	First Generation	Research	Fall 2023-present
Genesis Flores	Food Science	Research	Fall 2023-Spring 2024
Imani Johnson	First Generation	Research	Fall 2023
Presley Brashears	Food Science	Research	Summer 2023
Iowa State University (1	6)		
Kylie Plagakis	Dietetics	Research	May 2024
Alexander Krob	Genetics	Research	May 2024
Alexias Townsend	Animal Science	Research	May 2024
Siri Makanga	Microbiology	Research	May 2019
Kathryn Hinshaw	Microbiology	Research	May 2018
Yuliya Kovalenk	Food Science	Research	May 2017
Morgan Denzer	Food Science	Research	May 2017
Carlos Poemape	Architect/ agronomy	Research	May 2017
Lucille Little	Animal Science	Research	May 2015
Jodie Johnson	Ag Education	Research	May 2015
Nicholas Gross	Horticulture	Research	December 2015
Kara Helterbran	Microbiology	Research	August 2015
Erina Gunawan	Food Science	Research	May 2014
Cody Henkle	Dairy Science	Research	May 2014
We Yeok (Patrick)	Food Science	Research	May 2013
Beatrice Jie	Food Science	Research	August 2013

Internship Student Research

Student	Program	Role	Date
Texas Tech University (6)			
Katherine Ayala	Zamorano University	Research Intern	Spring 2025
Susely Paola Gracia	Zamorano University	Research Intern	Spring 2025
Emma Bloedel	AP Advisor Lubbock High School	AP Advisor	Fall 2023/Spring 2024
Maria Fernanda Maldonado	Zamorano University	Research Intern	Spring 2024
Graham			
Gleydi Lisseth Espinoza	Zamorano University	Research Intern	Spring 2024
Aguirre			
Brenda Fabiola Jovel	Zamorano University	Research Intern	Spring 2023
Gonzalez			
Elva Alcira Hernandez	Zamarano University	Research Intern	Spring 2023
Guetemala			
Iowa State University (19)			
Daysia Williams	George Washington Carver	Research Intern	Summer 2019
Tuskegee University	Scholar Intern		
Mikuel Hicks	George Washington Carver	Research Intern	Summer 2019
Tuskegee University	Scholar Intern		
Jessyca Martinez-Velez	George Washington Carver	Research Intern	Summer 2019
University of Puerto Rico	Scholar Intern		
Kelvin Lopez Alonzo	George Washington Carver	Research Intern	Summer 2019
University of Puerto Rico	Scholar Intern		
Briana Young	George Washington Carver	Research Intern	Summer 2018

Central Michigan University	Scholar Intern		
Keith Fennel	George Washington Carver	Research Intern	Summer 2018
North Carolina A&T	Scholar Intern		
University			
Yazrah Randall	George Washington Carver	Research Intern	Summer 2017
Tuskegee University	Scholar Intern		
Jasmine Roberts	George Washington Carver	Research Intern	Summer 2016
Tuskegee University	Scholar Intern		
Terry Vines	George Washington Carver	Research Intern	Summer 2016
Tuskegee University	Scholar Intern		
Cecile Cesarini	PUF 6 month France intern from	Research Intern	Mar-Sept 2016
France	ONIRIS Food Science School		
Bridget Perry	George Washington Carver	Research Intern	Summer 2015
Tuskegee University	Scholar Intern		
Jason White	George Washington Carver	Research Intern	Summer 2015
Tuskegee University	Scholar Intern		
Bryant Moore	George Washington Carver	Research Intern	Summer 2015
Tuskegee University	Scholar Intern		
Che Deer	George Washington Carver	Research Intern	Summer 2014
Oklahoma	Scholar Intern (High School)		
Nehu Manu	George Washington Carver	Research Intern	Summer 2014
New York	Scholar Intern (High School)		
Asana Zilk	George Washington Carver	Research Intern	Summer 2014
Iowa	Scholar Intern (High School)		
Adalissa Ortiz	George Washington Carver	Research Intern	Summer 2013
Missouri	Scholar Intern (High School)		
Genevieve Sullivan	Cornell University Exchange	Research Intern	Summer 2013
Courtney Williams	George Washington Carver	Research Intern	Summer 2012
Central Missouri University	Scholar Intern		

TEACHING: 10% Teaching Appointment at Texas Tech University

- Produce Safety Alliance for Produce Safety Alliance Grower Training
 - o Texas A&M University and Texas Department of Agriculture Collaboration
 - o Virtual Trainings
 - o November 7th and 8th, 2024 (15 participants)
 - o September 29th and 30th, 2024 (30 participants)
 - October 21st and 22nd, 2023 (10 participants)
 - o July 25th and 27th, 2023 (12 participants, TTU Graduate Students)
 - o June 29th and 30th, 2023 (16 participants)
 - o March 8th and 9th, 2023 (17 participants)
 - o November 3rd and 4th, 2022 (10 participants)
- Texas Food Safety & Defense Task Force Presentation
 - o February 15th, 2023 (124 participants)
 - o Provided a lecture on produce safety and lessons learned
- Plant and Soil Science 4515 Advanced Greenhouse Crop Production-Guest Lecture-Dr. Catherine Simpson
 - o April 23rd, 2024 (6 student participants)

- Horticulture 351 Hydroponic Food Production, Michigan State University- Guest Lecture Dr. Roberto Lopez
 - o October 12th, 2023 (35 student participants)
 - o September 15th, 2022 (45 student participants)

No teaching appointment at Iowa State University

- Agricultural Education and Studies 111: Dean's Leadership- Dr. Carmen Bain and Dean Robinson Faculty
 - o Taught: Fall of 2020 and 2021 (~20 students per class)
- Animal Science 684: Meat Science Seminar- Dr. Joseph Sebranek
 - Spring 2018, 2016, and 2014 (~10 students per class)
- Animal Science/Food Science/Hospitality Management 489: Issues in Food Safety-Dr. Ani Naig
 - o Spring 2013, 2014, 2019, and 2020 (~20 students per class)
- Food Science and Human Nutrition
 - o 208X: Dairy Foods Current Issues and Controversies-Dr. Stephanie Clark
 - Spring 2012, 2013, 2014, and 2017 (~30 students per class)
 - o 405: Food Quality Assurance-Drs. Lester Wilson and Joey Talbert
 - Spring 2012, 2017, and 2018 (~40 students per class)
 - o 471: Food Processing-Dr. Stephanie Jung
 - Spring 2013 (~30 students per class)
 - 420: Food Microbiology-Dr. Aubrey Mendonca
 - Spring 2012 (~40 students per class)
- Horticulture
 - o 331: Hydroponics-Dr. Chris Currey
 - Fall 2014, 2015, 2016, 2017, 2018, and 2019 (~30 students per class)
 - 376: Field Production of Horticultural Corps-Drs. Diana Cochane and Ajay Nair
 - Fall 2015, 2016, 2017, 2018, 2019, and 2020 (~25 students per class)
 - o 422: Post Harvest Processing-Dr. Dick Gladden
 - Fall 2014 and 2019 (~25 students per class)
 - o 461: Fruit Production-Dr. Gail Nonnecke
 - Spring 2013, 2014, 2016, 2018, 2020, and 2021 (~30 students per class)
 - o 471: Vegetable Production-Dr. Ajay Nair
 - Spring 2012, 2014, 2018, 2019, 2020, and 2021 (~20 students per class)
 - o Department Seminar Series- Dr. Kathleen Delegate
 - Spring 2014 and 2018 (~25 students/staff/faculty per class)
- Kinesiology 110: Personal and Consumer Health- Dr. Tyanez Jones
 - o Fall 2014 and Spring 2015 (~200 students per class)
- Master of Business Administration: Traceability Course-Drs. Byron Brehm-Stecher,
 James Dickson, Shannon Coleman, Gretchen Mosher, and Angela Shaw
 - Lead person in development of Course: Fall 2020 and 2021 offered (~15 students per class)

 Courses taught at Texas Tech University include Introduction to Food Microbiology with laboratory, Introduction to Hazard Analysis Critical Control Points (HACCP), and Introduction to Sanitation.

SERVICE AND OUTREACH

Institutional Service- University Level

- March 7th, 2025. Panelist Obesity Research Institute Women's Health Webinar
- 2025-2025 Co-Chair of the Strategic Enrollment Planning 2.0 Strategy #6 Strengthen research support services (grant development, writing, & administration) to include methods for increasing external funding of graduate and post-doc students, and to support writing for publication (clarify for faculty and students)
- 2024-present Member of the Faculty Research Advisory Council. Met monthly to discuss faculty advancement.
- 2023-present Member of the Texas Tech University Faculty Success Writing Group every Wednesday from 9 am-12 pm via zoom and 1-4 pm (fall 2024-present).
- August 20th, 2024 Texas Tech University New Faculty Orientation Small Group Facilitator
- January 25th, 2024 Texas Tech University Tenure Academy Faculty Panelist
- September 21st, 2023 Texas Tech University New Faculty Orientation Professional Panelist
- 2022-2023: Faculty Success Mid Career Committee at Texas Tech University
- 2020-2022: At Large Faculty Senator for College of Agriculture and Life Sciences at Iowa State University
- 2020-2022: Member of Athletic Council at Iowa State University
- 2020-2022: Extension Faculty Taskforce at Iowa State University within Provost Office
- 2020-2021: COVID-19 Initiative Team Food at Iowa State University Extension and Outreach
- 2019-2022 Lead of the Program of Work (POW) Produce Safety Team at Iowa State University Agriculture and Natural Resources Extension and Outreach
- 2018-2022: Member of George Washington Carver Faculty Council at Iowa State University
- 2017-2022: Black Faculty and Staff Association at Iowa State University
 - 1. Incoming Chair (2017); Current Chair (2018-2019; 2020-2021); Past Chair (2019-2020; 2021-2022)
 - 2. Awards Committee: 2019-2022
 - 3. Welcome Committee: 2012-2022
- 2017: Search Committee Member for Director of Extension and Outreach at Iowa State University
- 2013: Search Committee Member for Families Extension Program at Iowa State University

Institutional Service- College Level

- 2019-2021: Member of Search Committee for Associate Dean of Academic Innovation for the College of Agriculture and Life Sciences
- 2015-2017 and 2019-2021 Member of College of Agriculture and Life Sciences Diversity and Inclusion Committee
- 2018-2019: Member of College of Agriculture and Life Sciences Task Force for CALS Student Council.

 2012: Search Committee Member for Assistant Dean for Diversity for College of Agriculture and Life Sciences in at Iowa State University

<u>Institutional Service- Department Level</u>

- Spring 2023: Committee Chair: Department Onboarding Committee
- 2022: Search Committee Member for Department Chair for Food Science and Human Nutrition
- 2020-2022: Member of Food Science and Technology Graduate Advisory Committee for the Department of Food Science and Human Nutrition
- 2015-2022: Lead of Signature Area Community Health and Food Science Education
- 2015-2016; 2021-2022: Member of Awards Committee for Department of Food Science and Human Nutrition
- 2020-2021: Member of Department Advisory Committee for the Department of Food Science and Human Nutrition
- 2019-2021: Chair of Equity, Diversity and Inclusion Committee for the Department of Food Science and Human Nutrition
- 2021, 2019, 2018, 2017, 2016: Iowa FFA Food Science Contest Product Development and Complaint Letter Judge
- 2019-2020: Chair of Faculty Review Committee for the Department of Food Science and Human Nutrition
- 2018-2019: Task Force Equity for the Department of Food Science and Human Nutrition
- 2018-2019: Chair of Search Committee for Assistant Professor of Enology in Department of Food Science and Human Nutrition at Iowa State University
- 2017-2019: Chair of the Graduate Student Admission and Recruitment Committee for Department of Food Science and Human Nutrition
 - Initiated a change in the graduate student admission policy toward an inclusive approach based on research, teaching, extension, and work experience. Previous admission policy evaluated solely on GPA and GRE scores.
 - Developed a protocol guide for the committee that included the history of the committee policies and details of procedures.
- 2014-2017: Co-Coach of the Iowa State University Institute of Food Technologist College Bowl Team
- 2012-2017 and 2019-2020: Member of Graduate Admissions and Recruitment Committee for Department of Food Science and Human Nutrition
- 2016-2017: DAC Committee for Department of Food Science and Human Nutrition
- 2014-2017: Member of Undergraduate Recruitment Committee for Department of Food Science and Human Nutrition
- 2016: Member of Website Development Committee for Department of Food Science and Human Nutrition
- 2013-2018: Youth Food Science Education Promotion (K-12): World Food Prize/ Youth Institute/World Food Interactive Session.
- 2012-2013: Member of Seminar Committee for Department of Food Science and Human Nutrition
- 2011-2018: Youth Food Science Education Promotion (K-12): Science Bound Laboratory Interactive Sessions.

Community-Based Service in Texas

- Volunteer-STEM Night Table Host-Legacy Elementary School-Lubbock, Texas (February 25th, 2025)
- Volunteer-Children's Home of Lubbock; Guest chef for 55 children, Lubbock, TX (February 21st, 2025)
- Volunteer-Science Fair Judge-Rameriz Elementary School-Lubbock, Texas (January 31st 2025)
- Science Fair Judge-Commander McCool Academy School-Lubbock, Texas (January 22nd, 2025)
- Volunteer-Habitat for Humanity Day of Service (January 20th, 2025)
- Volunteer- MLK Youth Empowerment Summit-Texas Tech University (January 18th, 2025)
- Volunteer-Lubbock Impact (January 14th, 2025)
- Volunteer-Warm and Cozy K-5 430 Hats, Gloves, and Scarf Giveaway-Hodges Elementary School, Lubbock, Texas (December 9th, 2024)
- Volunteer-FiberMax Museum Kids Program, Lubbock, TX (December 8th, 2024)
- Volunteer-Salvation Army Red Kettle Ringer-Lubbock, Texas (December 7th, 2024)
- Volunteer-Children's Home of Lubbock; Guest chef for 55 children, Lubbock, TX (November 15th, 2024)
- Volunteer-Trunk or Treat Host, Lubbock, TX (October 27th, 2024)
- Volunteer Guest Chef-Ronald McDonald House of the Southwest-Lubbock, Texas (September 15th, 2024)
- Volunteer-Lubbock County Extension Ag in a Bag at Patterson Library, Lubbock, Texas (August 19th, September 16th, and December 16th, 2024, January 10th, 2025)
- Volunteer-Food2Kidds-Weekend Backpack program (April 18th, May 9th, August 29th, November 14th, 2024
- Volunteer- South Plains Barnyard 4-H- Lubbock, Texas (September 20th, 2024)
- Volunteer-City of Lubbock 4th on Broadway Parade (July 4th, 2024)
- Volunteer-One Day Market at Dunbar College Preparatory Academy (April 24th, 25th, and 27th, 2024)
- Volunteer-Team Luke Hope for Minds (April 3rd, 2024)
- Volunteer-City of Lubbock Mardi Gras Celebration (Feb. 27th, 2024)
- Volunteer-Lubbock Children's Health Clinic-Clothing Boutique Closet (Feb. 17th, 2024)
- Volunteer- LHUCA Black Illustrators Exhibition (Feb. 17th, 2024)
- Volunteer- City of Lubbock Kwanzaa Celebration (Feb. 3rd, 2024)
- Volunteer-Science Fair Judge-Rameriz Elementary School-Lubbock, Texas (January 26th, 2024)
- Volunteer-Science Night Table Host-Rameriz Elementary School-Lubbock, Texas (January 26th, 2024)

- Volunteer- MLK Youth Empowerment Summit-Texas Tech University (January 13th, 2024)
- Volunteer- Mogra Children House-Nairobi, Kenya (December 29th, 2023)
- Volunteer-Grace Community Resident-Lubbock, Texas (December 9th, 2023)
- Volunteer-Salvation Army Red Kettle Ringer-Lubbock, Texas (December 9th, 2023)
- Volunteer-Warm and Cozy K-5 430 Hats, Gloves, and Scarf Giveaway-Lubbock, Texas (December 8th, 2023)
- Volunteer-Talkington Girls School Enrichment Day-Lubbock, Texas (December 15th, 2023)
- Volunteer Guest Chef-Ronald McDonald House of the Southwest-Lubbock, Texas (December 7th, 2023)
- Volunteer-Salvation Army Thanksgiving Dinner Server-Lubbock, Texas (November 23rd, 2023)
- Volunteer-Lubbock County 4 H Food and Nutrition Contest Judge-Lubbock, Texas November 21st, 2023)
- Volunteer-Pathway to Womanhood 5th Grade Event at Ervin Elementary School-Lubbock, Texas (November 4th, 2023)
- Volunteer-South Plains Food Bank-Lubbock, Texas (September 25th, 2023)
- Volunteer-Out of Darkness Suicide Awareness Fundraiser Walk (September 23rd, 2023)
- Volunteer-Sneaker and Pearl Lubbock Children Hospital Fundraiser (September 21st, 2023)
- Volunteer- South Plains Barnyard 4-H- Lubbock, Texas (September 28th, 2023)
- Volunteer-Habitat for Humanity 2023 Bliss Event-Lubbock, Texas (September 4th, 2023)
- Volunteer-Back to School Supply Give Away by Brittany and Devine Angels, Bettenbough Homes, and YWCA-Lubbock, Texas (August 5th, 2023)
- Volunteer-National Night Out at Patterson Library-Lubbock, Texas (August, 1st, 2023)
- Volunteer-100 Black Men of West Texas Fishing Derby-Lubbock, Texas (July 15th, 2023)
- Volunteer- City of Lubbock Juneteenth Parade and Kid Zone Event (June 17th, 2023)
- Volunteer-End Racism Walk with East Lubbock Art House (March 4th, 2023)
- Volunteer- MLK Youth Empowerment Summit-Texas Tech University (January 14th, 2023)
- Science Fair Judge-Rameriz Elementary School-Lubbock, Texas (January 2023)
- Volunteer-Warm and Cozy K-5 430 Hats, Gloves, and Scarf Giveaway-Lubbock, Texas (December 2022)
- Volunteer-Salvation Army Red Kettle Ringer-Lubbock, Texas (December 2022)
- Volunteer-South Plains Food Bank-Lubbock, Texas (October 2022)
- Volunteer- South Plains Barnyard 4-H- Lubbock, Texas (September 2022)

Community-Based Service to Youth

- Estacado High School Mentorship program for freshman. I mentored a group (n=5) of freshman high school students related to careers and academics. School year of 2023-2024.
- The Ames Youth and School Action Team: A non-partisan group of concerned citizens whose intention is to shine light on racial and ethnic disparities that exist throughout the Ames Community School District. Founded in January 2017. Founding member
 - o Steering Committee Member. 2017-2022
 - 2019: 45 general members; 11 steering committee members; 2018: 50 general members, 10 steering committee; 2017: 50 general members; 12 steering committee members
- Hope in Christ Back to School Backpack Give Away Event: Faith based backpack give away that serves between 300-500 K-12 students.
 - o Speaker. Every August 2017-2019; 2021
- Passion Academy: Sixth and seventh grade student of color career promotion program at Ames Middle School in Ames, Iowa, managed by faculty, staff, graduate and undergraduate students of color from Iowa State University. Founded in April 2016.
 - o Director and developer of program. Spring 2017-Winter 2019
 - o 2018-2019: 20 participants; 2017-2018: 50 participants; Spring 2016: 20 participants. Delayed due to COVID-19.

PROFESSSIONAL AND ACADEMIC MEMBERSHIP

National Chair

- 2023-Present: Inaugural Chair of International Association for Food Protection Welcome Ad Hoc Standing Committee
- 2023-present: Co-Lead of the Controlled Environmental Agriculture Research Group with co-leader Robert Hadad at Cornell University
- 2020-2023: Inaugural Chair of International Association for Food Protection Diversity, Equity, and Inclusion Council
- 2018-2022: Chair/ Co-Chair of USDA Funded North Central Region Center for FSMA Training, Extension, and Technical Assistance
- 2013-2020: Chair of FDA Funded North Central Region Center for FSMA Training, Extension, and Technical Assistance
- 2011-2016; 2017-2022 S-294 USDA Multi State Research Project: Quality and Safety of Fresh-cut Vegetables and Fruits. Lead for Iowa State University (2013-2016; 2017-Present) President Elect (2013-2016)

National Member

- 2024-present: Member of the International Association for Food Protection James M Jay Diversity Award Selection Committee
- 2023-Present: Member of International Association for Food Protection Diversity, Equity, and Inclusion Council
- 2020-2021: Taskforce Member to develop a Diversity Equity and Inclusion Committee for International Association for Food Protection
- 2020-2021 Member of International Association for Food Protection Program Committee

- o 2012-Present: Food Safety Preventive Controls Alliance
- o 2005-Present: Member of International Association for Food Protection
- 2020-2021: Member of CEA (Controlled Environment Agriculture) Food Safety Coalition Advisory Council
- o 2010-2020: Member of The American Society for Microbiology
- o 2011-2022: Member of Egg Industry Center Advisory Board
- o 2006-2020 Member of Institute of Food Technologist
- o 2005-2019: American Meat Science Association
- o 2012-2019 NC-213 The U.S. Quality Grains Research Consortium

State Member

- 2024-present: Member of the Texas Food Protection Task Force Steering Committee
- 2023-present: Member of the Food Science Advisory Board (FSAB) for the Department of Food Science and Human Nutrition at Michigan State University
- 2022-present: Member of the Texas Department of Agriculture Produce Safety Team
- o 2022-present: Steering Member of the Texas Food Safety & Defense Task Force
- 2011-2022: Member of Iowa Food Safety Task Force
- 2011-2018: Iowa Section Institute of Food Technologist (Past President, President, President, President Elect, Member at Large)
- o 2012-2017: Member of Regional Food System Working Group (RFSWG)
- o 2012-2016: Member of The Iowa Food System Working Group (IFSWG)

Scientific Review Activities

- o 2017-Present: Foods
- o 2010-Present: Food Control
- o 2010-Present: Foodborne Pathogens and Disease
- o 2010-Present: Journal of Food Science
- o 2006-Present: Journal of Food Protection (editorial board 2018-2020)
- o 2019-2022: Elmer Marth Educator Award Committee (Chair 2021)
- o 2018-2022: Tenure and Promotion from Peer Institutions
- o 2008-2020: Meat Science

Grant Proposal Review

- 2024: USDA NIFA Food and Defense Program
- o 2020: USDA Value Added Producers Grants Program
- o 2017: USDA 1890 Facility Research
- o 2015: USDA Higher Education
- o 2014: USDA Higher Education
- o 2013: USDA 1890 Facility Research
- o 2013: USDA Non-Land Grant Institutions Reviewer
- o 2013: Baily Research Award; University internal grant, Iowa State University
- 2011: USDA SBIR Phase I reviewer

Professional Improvement Training

- 1. December 10th, 2024: Unpeeling the Science: Onions, food safety and the fight against foodborne pathogens (Virtual)
- 2. October 30th, 2024: Research to Reality: Biological Soil Amendments with Drs. Laurel Dunn, Keith Schneider and Manan Sharma (Virtual)
- 3. September 24th, 2024: Comparative Evaluation of Commonly Used Agriculture Water Chemical Treatments featuring guest speaker Dr. Channah Rock from the University of Arizona (Virtual)
- 4. September 11th, 2024: Equity and Justice in Science Education by American Association for the Advancement of Science (AAAS)(Virtual)
- 5. August 6th, 2024: FDA Basic Mushroom Growing, Harvesting, Holding and Packing (Virtual)
- 6. May 20th, 2024: Produce Final Water Rule by FDA (Virtual)
- 7. April 16th, 2024: FDA Produce Safety Webinar Series Traceability Rule: How to Prepare (Virtual)
- 8. April 11-14th, 2024: Faculty Women of Color in the Academy (Arlington, VA)
- 9. February 28th, 2024: Engage with AAAS (Virtual)
- 10. February 21st, 2024: Cornell University How can a farmer prepare for the FDA traceability rule (Virtual)
- 11. April 20-23rd, 2023: Faculty Women of Color in the Academy (Arlington, VA)
- 12. February 7th, 2023: Faculty of Color Success Fireside Chat (Lubbock, TX)
- 13. March 8th, 2023: H2O-Go: Helping Growers Meet Postharvest Agricultural Water Requirements by Produce Safety Alliance (Virtual)
- 14. January 27th, 2023: FDA Update on Subpart E Harvest and Postharvest Water Requirements: End of Enforcement Discretion by Produce Safety Alliance (Virtual)
- 15. January 18th, 2023: Building the House of Wellness (Lubbock, TX)
- 16. December 19th, 2022: FSMA Traceability Rule: Supplemental Slides for Grower Outreach by FDA Produce Safety Rule Group (Virtual)
- 17. November 29th, 2022: Research Leadership Discussion-Federal Grants disclosures (Lubbock, TX)
- 18. November 10th, 2022: Meet the Program Officers-HSI Programming Series (NSF) (virtual)
- 19. October 25th, 2022: Produce Safety Alliance Lead Trainer Annual Update (virtual)
- 20. October 24th, 2022: Building Interactive Elements into Your Produce Safety Training by Kristin Woods from Tuskegee University, Billy Mitchell, and Gretchen Wall from International Fresh Produce Association (Virtual)
- 21. October 19th, 2022: Juggling All the Things: Helping Faculty Balance Expectations (Lubbock, TX)
- 22. October 13th, 2022: USDA HSI Federal Resource Symposium (virtual)
- 23. October 19th-20th, 2022: Food Safety Preventive Control Annual Conference (virtual)
- 24. September 2022-May 2023: Faculty Fellows Davis College (Lubbock, TX)
- 25. August 22nd, 2022: Subpart E (Agricultural Water): New Proposed Compliance Dates, Thinking about Update Training, and Identifying Key Grower Needs by FDA Produce Safety Group (Virtual)
- 26. July 2022: International Association of Food Protection Conference (Pittsburgh, PA)

- 27. June 6th, 2022: The SCRUB Project: Up to Our Elbows in Suds and Bubbles by Chris Callahan at the University of Vermont (Virtual)
- 28. April 2022: Faculty Women of Color in the Academy (Arlington, VA)
- 29. October 2021: Food Safety Preventive Control Annual Conference (virtual)
- 30. Every March 2011 through 2019; 2021: Iowa State Conference on Race and Ethnicity (ISCORE) Conference (Ames, IA)
- 31. 2019-2020: Lead 21 program purpose is to develop leaders in land grant institutions and their strategic partners who link research, academics, and extension in order to lead more effectively in an increasingly complex environment, either in their current position or as they aspire to other positions (Minneapolis, Denver, Washington DC)
- 32. November 2020: Writing Successful Grants and Write Winning Grant Proposals
- 33. October 2020: Food Safety Preventive Control Annual Conference (virtual)
- 34. July 2020: International Association of Food Protection Conference (Virtual)
- 35. April 2020: Faculty Women of Color in the Academy (virtual)
- 36. February 2020: Just Mercy Book Read and Discussion (Ames, IA)
- 37. October 2019: Food Safety Preventive Control Annual Conference (virtual)
- 38. October 2019: Deaf Culture 2 Part Series (Ames, IA)
- 39. September 2019: Managing Abism (Ames, IA)
- 40. July 2019: International Association of Food Protection Conference (Louisville, KY)
- 41. May 2020: National Conference on Race and Ethnicity Conference (NCORE) Conference (Portland, Oregon)
- 42. February 2019: White Fragility with Dr. Robin DiAngelo (Ames, IA)
- 43. October 2018: Food Safety Preventive Control Annual Conference (virtual)
- 44. July 2018: International Association of Food Protection Conference (Salt Lake City, UT)
- 45. April 2018: Privileging the Privileged: How bias, power and privilege impact graduate school funding and admissions (Ames, IA)
- 46. April 2018: Cross cultural communication; creating mutual understanding in a diverse academic environment (Ames, IA)
- 47. March 2018: Train the Trainer On-Farm Readiness Review (Florida)
- 48. March 2018: "That's Not What I Meant": Understanding intent vs impact in an academic environment (Ames, IA)
- 49. September 2018: Managing Unconscious Bias: Strategies for the Classroom (Ames, IA)
- 50. October 2017: Food Safety Preventive Control Annual Conference (virtual)
- 51. October 2017: Breaking Bias (Ames, IA)
- 52. July 2017: International Association of Food Protection Conference (Tampa, FL)
- 53. July-August 2016: International Association of Food Protection Conference (St. Louis, Missouri)
- 54. October 2016: Writing Successful Grants and Write Winning Grant Proposals
- 55. October 2016: Creating an Inclusive Classroom (Ames, IA)
- 56. December 2016: Train the Trainer Produce Safety Alliance (Minneapolis, MN)
- 57. August 2015: Grant coach for FDA/NIH proposal
- 58. December 2015: Train the Trainer Food Safety Modernization Act Preventive Controls for Human Food (Minneapolis, MN)
- 59. November 2015: Annual Iowa Organic Conference (Iowa City, IA)

- 60. August 2015: Implementing SQF Systems (Des Moines, IA)
- 61. July 2015: International Association of Food Protection Conference (Portland, OR)
- 62. July 2015: IFT Strategic Leadership Conference (Chicago, IL)
- 63. July 2015: Institute for Food Technologist (Chicago, IL)
- 64. June 2015: S294 Conference/ United Fresh Produce Conference (Chicago, IL)
- 65. June 2015: Food Safety Preventive Control Train the Trainer (Bedford, IL)
- 66. October 2014: S1056 Enhancing Microbial Food Safety by Risk Analysis (San Juan, PR)
- 67. November 2014: Annual Iowa Organic Conference (Iowa City, IA)
- 68. April 2014: USDA AMR Group GAP Internal Auditor Training (LaFarge, WI)
- 69. April 2014: FDA Traceback Course (Clive, IA)
- 70. August 2013: 2013 Fruit and Vegetable field day (Horticulture Farm, Ames, IA)
- 71. July 2013: IFT Strategic Leadership Conference (Chicago, IL)
- 72. July 2013: Institute for Food Technologist (Chicago, IL)
- 73. July 2013: International Association of Food Protection Conference (Charlotte, NC)
- 74. May 2013: S294 Conference/ United Fresh Produce Conference (San Diego, CA)
- 75. April 2013: Annual Egg Industry Issues Forum (St. Louis, MO)
- 76. January 2013: FDA Risk Based Inspection Course (Fairgrounds, Des Moines, IA)
- 77. April 2012: FDA Foodborne Illness half day workshop (Gateway Hotel, Ames, IA)
- 78. April 2012: United Fresh Produce Conference (Dallas, TX)
- 79. March 2012: FDA Retail Food Program Standard 2 Training Regulatory Staff Workshop given by FDA (State Hygiene Laboratory at DMACC, Ankeny, IA)
- 80. March 2012: FDA 312 Special Processes at Retail Workshop given by FDA (State Hygiene Laboratory at DMACC, Ankeny, IA)
- 81. December 2011: Food Label and Food Legislation Seminar-Food Policy Conference given by IFT (Arlington, VA)
- 82. September 2012: Writing Successful Grants and Write Winning Grant Proposals
- 83. September 2011: College of Agriculture and Life Sciences New Faculty Orientation, Grants and Proposals Workshop
- 84. September 2011: "Ten Inexpensive Ways to Stimulate Proposal Development," a webinar by Dr. Robert Porter, Director of Research Development at the University of Tennessee
- 85. September 2011: Grant Writing Seminars: Basic principles and Submitting a grant to NSF and NIH

EXTENSION PROGRAMMING

Extension Online Curriculum Developed

- 1. North Central Region Produce Food Safety Curriculum
 - a. https://www.ncrfsma.org/resources-topic
- 2. Online Food Safety Education for School Gardens
 - a. http://www.safeproduce.cals.iastate.edu/elementary/
- 3. Online Food Safety Education for University Farms
 - a. http://www.safeproduce.cals.iastate.edu/university/

- 4. Online Food Safety Education for Farmers Markets
 - a. http://www.safeproduce.cals.iastate.edu/farmersmarket/

Workshops Conducted

- 1. Produce Safety Alliance for Produce Safety Alliance Grower Training
 - a. 2024- 1 Remote Course (30 participants)
 - b. 2023- 4 Remote Courses (55 participants)
 - c. 2022-1 Remote Course (10 participants)
 - d. 2021-2 Remote Courses (19 participants)
 - e. 2020-8 Courses (140 participants)
 - f. 2019-12 Courses (211 participants)
 - g. 2018-12 Courses (231 participants)
 - h. 2017-4 Courses (73 participants)
 - i. 2016-1 Course (22 participants; Train the Trainer)
- 2. Biological soil amendments of animal origin workshop with US Food and Drug Administration
 - a. 2019-1 Course (50 participants)
- 3. Cleaning and Sanitation: Food Safety Basics workshop with US Food and Drug Administration
 - a. 2022-1 Course (35 participants)
- 4. Food Microbiology for Industry-Short Course
 - a. 2022 cancelled due to the university transfer
 - b. 2019, 2020, and 2021 cancelled due to COVID-19 Pandemic
 - c. 2017-1 Course (25 participants)
 - d. 2016-3 Course (41 participants)
 - e. 2015-1 Course (25 participants)
- 5. Food Safety Modernization Act Preventive Controls for Human Food Course
 - a. 2020 and 2021 no course due to COVID-19 Pandemic
 - b. 2019- 2 Courses (46 participants)
 - c. 2018-1 Course (32 participants)
 - d. 2017-2 Course (101 participants)
 - e. 2016-3 Course (51 participants)
- 6. Food Safety Modernization Act Informational Webinars
 - a. 2016-5 Webinars (69 participants)
 - b. 2016-1 Half-Day Workshop (97 participants)
 - c. 2016-1 Full-Day Workshop (65 participants)
- 7. Food Safety Topic Driven Workshops
 - a. 2015- GEAPS Distance Education Seminar through Kansas State (22 participants)
 - b. 2015-1 Lunch and Learn Workshop for Extension agents (20 participant)
 - c. 2014- 1 Half Day Food Safety Workshop for food industry (22 participants)

- d. 2013- 1 Half Day Food Safety Workshop for food industry (50 participants)
- e. 2013- 2 Lunch and Learn Workshop for Extension agents (40 participants)
- f. 2012- 2 Farm Food Safety Full Day Short Course for growers (95 participants)
- g. 2012- 1 Half Day Workshop for food industry (55 participants)
- h. 2012- 2 Lunch and Learn Workshop for Extension agents (40 participants)
- i. 2012- Microbiology on the Farm Webinar Series for growers (102 participants)
- j. 2012- GEAPS Distance Education Seminar through Kansas State (25 participants)
- k. 2011- Four -1 Hour Workshop for food industry (200 participants)
- 8. Good Agricultural Practices
 - a. 2018- Moved course online
 - b. 2017-5 Courses (50 participants)
 - c. 2011-2016- 17 Courses (238 participants)
- 9. Hazard Analysis Critical Control Point for Non-Meat Industries Short Course
 - a. 2015-1 Course (30 participants)
 - b. 2014- 1 Course (29 participants)
 - c. 2013-1 Course (31participants)
- 10. International Food Safety Program
 - a. 2019-2021 cancelled due to COVID-19 Pandemic
 - b. 2018-1 Course (9 participants; China)
 - c. 2016- 5 Course (62 participants; Philippians, Haiti, Armenian, Venezuela, Nigeria)
- 11. Market Ready Workshop (administrated by FEED Extension Program at ISU)
 - a. 2020- Moved to online course
 - b. 2019- Cancelled due to COVID-19 pandemic
 - c. 2018-1 Workshop (21 participants)
 - d. 2015-3 Workshops (56 participants)
 - e. 2014- 2 Workshops (41 participants)
- 12. News and Blast Regional 1.5 Day Workshops: Produce Safety Educators Professional Development Event
 - a. 2019-Minneapolis, MN (60 In-person; 30 Online participants)
 - b. 2018-Detroit, MI (50 In-person; 20 Online participants)
- 13. On Farm Food Safety Plan Development
 - a. 2018- Course moved to FEED extension group for administration
 - b. 2017- 2 Courses (86 participants)
 - c. 2011-2016- 10 Courses (186 participants)
- 14. On-Farm Readiness Reviews
 - a. 2020-2021- 2 In-Person in 2020; 10 In-Person and 3 Virtual Farms in 2021
 - b. 2019-2020- 11 Farms
 - c. 2018-2019- 10 Farms