

AG RESEARCH SPOTLIGHT



Haley Oliver

"We're looking for potentially dangerous bacteria in a food environment and finding solutions to get them out and keep them out."

Haley Oliver, Associate Professor of Food Science

The Ag Research Spotlight shines each month on an individual whose work reflects our commitment to the six strategic themes that guide Agricultural Research at Purdue. Our spotlight for February 2016 underscores the theme, "Enhancing food and health."

THE RESEARCHER: While grocery store shoppers waiting at the deli counter distractedly check their shopping lists, Haley Oliver focuses on what's going on behind the case: "I'm a deli stalker," she admits. No wonder—delis and other retail food systems can harbor foodborne pathogens, Oliver's primary research interest. The scientist and teacher grew up on a production farm near Lingle, Wyoming. She intended to major in communications at the University of Wyoming until a course in microbiology changed her direction: "It was the hardest class I ever took, but I loved how everything made sense," she recalls. After graduating in microbiology and molecular biology, she studied food science at Cornell University, where she thrived in the academically rigorous and culturally diverse environment. After completing a doctorate and post-doctoral fellowship at Cornell, she applied for an opening at Purdue. "My job is a little unique in that I have a teaching and research appointment, in that order," she says. Oliver wanted an environment in which teaching is appreciated, respected, and valued, and found it when she joined the food science faculty in June 2010.

THE RESEARCH: "I try to find where foodborne pathogens exist in the food system, where they persist, and how to fix that," she explains. Analysis of data related to the prevalence, persistence, and transmission of foodborne pathogens is the only way to establish

the root cause of illness and to develop intervention strategies that improve food safety in retail food operations, she adds.

FOOD POISONING (OR NOT): Consumers often attribute symptoms to foodborne illness without real evidence, Oliver says. Few realize the incubation period for various foodborne illnesses ranges from 30 minutes to 70 days. Academia is in a unique position to address consumers' concerns about food safety, she adds. "We are not a regulator and not a producer. We are asking what we can do to help using science-based information. We like data-driven decision making."

AFGHANISTAN: Oliver has been to Afghanistan eight times to teach food safety as part of an initiative to increase food technology capacity co-sponsored by Purdue, the USDA Foreign Agricultural Service and USAID. The challenges she faces there give her perspective and sharpen her problem-solving skills at home, she says: "If I can teach in a country that hasn't had formal education in the last 40 years, that makes me a better teacher in the classroom here."

SHARING STUDENTS: Oliver supports numerous undergraduate and graduate students in her lab and hopes her fellow researchers will capitalize on their experience. "I'm a firm believer in changing institutions," she explains. "It was a big leap from Wyoming to Cornell, and it changed my life. I'm training undergraduates to send to my colleagues, and I'm expecting them to do the same." Outside of the lab, Oliver shares her country home with two greyhounds and enjoys "fast dogs, fast cars, and slow food."