

# GRADUATE AG RESEARCH SPOTLIGHT



## Kacie Ho

"I really love food, and I love to eat. If you ask a food science major about their interest, that's usually their answer."

—Kacie Ho, master's degree candidate in Food Processing & Technology Development

**THE STUDENT:** Kacie Ho, who was born and raised in Hawaii, misses her family, the beaches, and spicy ahi poke, a Hawaiian dish of saucy cubed raw fish. Food is important to Ho, who enrolled at the University of Hawaii at Manoa intending to study dietetics and nutrition—until a summer internship at a Hawaiian Host chocolate manufacturing facility sparked her interest in food science. She applied to some of the top U.S. graduate programs in the field. When she arrived at Purdue, she says, "I really got a good vibe." The offer of a fellowship to work with Assistant Professor of Food Science Fernanda San Martin confirmed her choice.

**THE RESEARCH:** Ho's research focuses on lycopene, the compound that gives tomatoes their red-orange color. She is studying the use of microwaves to enhance the efficiency of extracting lycopene from tomato peels, a major and often discarded by-product of processing. Encapsulating the lycopene in nanoemulsions might allow it to be added to food products as a natural color or nutritional enhancement. "I find this interesting because of the encapsulation trend in the food industry," she says. "I feel that my project is relevant to what's going on now."

**NSF SUPPORT:** In support of her research, Ho received a three-year National Science Foundation

Fellowship that will begin in September 2013. After the rigorous application process proved successful, she says, "I was honored that the reviewers felt I had potential to be an NSF Fellow and that my research is significant."

**INDUSTRY PERSPECTIVE:** Ho was in Minnesota this summer, interning with Cargill's Global Food Research Group. "I was able to be around so many different scientists who are the experts in their fields," she says. And the experience is broadening her viewpoint: "It's different to see a company's perspective on research compared to graduate school. My current plan, although it might change, is to work for industry for a few years, then go back into academia. That's actually what my advisor did."

**HELPING THE NEXT GENERATION:** Ho has been involved in the Purdue Graduate Student Government, especially its Next Generation Scholars Planning Committee, which exposes middle-schoolers to broad concepts of research and graduate study. "It's good to find ways to give back to the community and to network with other grad students," she says. Ho also values her close-knit group of graduate students in food science, and far from the beaches of home, enjoys playing the ukulele—"a very Hawaiian thing to do," she says.