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CAL POLY POMONA'S STUDENT NEWSPAPER

ARTS AND ENTERTAINMENT

CPP community consumes bugs for research

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By Alicia Balderrama

A Cal Poly Pomona graduate student is examining alternative food sources with a research study about edible insects.

Set to graduate in June, Jaynie Tao, a food science graduate student, is using this project for her senior thesis. Tao is conducting her research under the advisement of Olive Yao Li and Bonny Burns-Whitmore, both human nutrition and food science professors.

The study aims to determine whether edible insects are a viable alternative food source and whether people can get over the "yuck factor" associated with consuming insects. Participants in the study are not presented with a bowl of grasshoppers and crickets. Instead, the study utilizes a combination of insect flour and rice flour formed into a rice-like shape.

"You can't even tell that it has insects in it, and that's what we're trying to do: increase the palatability of eating insects," said Tao.

The idea for the research study came from a product development competition put on by the Institute of Food Technologists Student Association in 2014. The theme for the competition was entomophagy, which is human consumption of insects. Tao was part of a research team competing that year, but her team was not selected to continue on to the national finals.

Rather than giving up on the project, Tao decided to continue the research her team had started and use it for her graduate thesis. The project is currently in its second year of research and will be completed by the end of May.

"This study is making history because I don't think [the department has] done sensory evaluations at such a large scale," said Tao. "It's a really huge thing that's going on."

The study was advertised around campus with emails and flyers asking students to volunteer. Typically for an experiment such as this, participants would not be privy of the ingredients in the food they eat because it may create a bias in their responses. However, because of the sensitivity of using insects in food, the researchers felt it would be better to reveal that information up front.

On Thursday from 5 p.m. to 8 p.m., participants were asked to meet in the courtyard of the College of Environmental Design and led into a lab in small groups to taste various food items made with insect flour. After the tasting, the participants answered a questionnaire to record their sensory perceptions of the food. Each person spent about 10 minutes in the lab. The turnout was high, and many volunteers had to wait at least 30 minutes before they could begin the experiment.

Jason Moya, a third-year food science student, thought that the food tasted good.

"I think [social acceptance] is going to take a while, but I can see it happening slowly," said Moya.

Marshanique Hall, a third-year business student, showed up to the study with a friend because her teacher offered extra credit to anyone who participated.

"It wasn't too bad, but it didn't taste like regular rice," said Hall. "[As an alternate food source], I think it depends on your taste and how they put it together."

Li kept close communication with Tao to make sure that the project ran smoothly. Tao is in charge of the study, but it is Li's job to make sure that the work is manageable, of high quality and is sufficiently technical to qualify for a master's thesis.

Li decided to advise both the research team and the study because of her previous research on alternative food sources in developing countries.

According to Li, edible insects are an important topic to address because in case of war or a natural disaster, Americans may be forced to turn to insects for food. Additionally, the global population is predicted to increase to

over 9 billion by 2050, resulting in serious food shortages worldwide, according to the Food and Agriculture Organization of the United Nations.

“It opens a new venue and makes people think about food security and sustainability,” said Li. “I think we can contribute to the field with Jaynie’s work and show that [insects are] feasible in food applications and acceptable to consumers. That’s the significance of this project.”

Another experiment session will take place Tuesday at the Building 7 courtyard from 5 p.m. to 8 p.m. All students, faculty and staff are welcome to participate.

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Graduate students conducting research