

GRADUATE AG RESEARCH SPOTLIGHT



Martha Patricia “Paty” Romero Luna

“Mine is a little project that might have a little impact, but it feels good to contribute for the next generation, making possible a better life.”

- Martha Patricia “Paty” Romero Luna, Ph.D. candidate, Botany and Plant Pathology

THE STUDENT: Corn is essential to the diet and culture of Paty Romero Luna’s home country of Mexico, so it made sense for her to study it as an undergraduate biology major at Universidad de Guadalajara. Her strong interest in genetics led her to join Pioneer Hi-Bred at its Guadalajara facility, briefly as an intern and then as head of the diagnostic lab for three years. “I had to learn everything from the beginning, but I just loved it,” she says. Pioneer then offered her an internship at its headquarters in Johnson, Iowa, and Romero Luna leapt at the chance to improve both her research and language skills. “I had studied English as a second language since I was little, but when you actually move to the United States, it’s totally different,” she says. After 10 months—and with a significantly increased vocabulary—she applied to different universities for graduate study. “I wanted to work with corn,” she says. “Then I found [Purdue Associate Professor] Kiersten Wise, who is now my advisor. She was looking for a student, and I was looking for a professor.”

THE RESEARCH: Wise’s research programs focus on developing economical and sustainable disease management practices for agronomic field crops. Under her supervision, Romero Luna completed her master’s degree, studying short and long-term solutions to the fungal disease Diplodia Ear Rot. She is continuing this research as a doctoral

student. “I’m working with one of the most important diseases in corn,” she explains. “Its impact on yield is worldwide. What I want to do with my project is find the best way to control it.”

BALANCE: “I love the project because of the 50-50 combination of field work and lab work—what happens inside and what happens outside to understand the whole thing,” she explains. “At Purdue I have all the resources I need. My advisor’s work in Extension helps me to be more practical in my experiments. Because of her contacts with the farmers, we can understand the needs that they have.”

FUTURE PLANS: Romero Luna is in the first year of her doctoral program and hopes to complete the degree in three years. “I want to go back to industry to do applied research,” she says—“to a seed company, and, I hope, the one that gave me the opportunity to be here.”

HAPPY WORKAHOLIC: Although her friends in Botany and Plant Pathology often describe her as a workaholic, Romero Luna says she enjoys the hours spent in the lab or field. Although she takes full advantage of an espresso machine in her office, she is energetic even without her favorite beverage: “It’s hard for me to sit down without doing anything. When I talk to people, I’m moving my hands, my whole body—it’s part of my personality.”