

Jorge Fonseca (1968-Present)

Plant Scientist
University of Arizona

“Always think in a positive way...don’t think about obstacles, just do what you can with what you have, good luck or bad luck.” Jorge Fonseca, 2006.

Overview

This interview was conducted in 2010. Dr. Jorge Fonseca is a plant scientist at the University of Arizona and the Yuma Agricultural center, where he teaches and is responsible for running the university’s research and extension program as well as the statewide vegetable crop production and post-harvest technology. Fonseca also does consulting work outside the university, in both the United States and in Latin America.

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Early Life and Education

The economy in Costa Rica during Jorge Fonseca’s formative years there had a big influence on his career path. “When I was growing up and deciding what to do, Costa Rica was one of the only tropical countries in the Americas that could export produce to the U.S. and abroad,” he recalls. “There was a lot of interest in increasing food production.” Costa Rica is also a world leader in conservation efforts; Fonseca notes that about forty percent of the country’s land is set aside for research, national parks and eco-tourism. These surroundings stimulated Fonseca’s interest in both food production and its environmental impact.

Fonseca chose plant science as his focus at the undergraduate level, earning his degree in the subject from the University of Costa Rica. He also had his first job there, as a researcher in post-harvest technology for perishable products. Fonseca went on to earn his MBA through a joint program with the University of Costa Rica and the National University of San Diego, a Master’s of Science in horticulture from Clemson University, and a doctorate in food technology from Clemson.

During the course of his education, Fonseca developed an interest in applied food research, and facilitating ways that researchers in academia can work more closely with industry. Although he liked dealing with the business and administrative side of the industry, he opted to pursue science as his primary focus. Fonseca says that is because he has an innate love for observing the workings of the natural world. “I love to see organisms growing in harmony,” he notes. “My passion is my job, and I unleash my passion through work and research.”

Career

Through a fellowship with the Association of South Carolina growers while at Clemson, and other opportunities stemming from that experience, Fonseca became very interested in different types of crops and their growing environments, especially dry climates. He applied for his current job at the University of Arizona, a land-grant university, while still working on his doctorate. He is now a plant scientist, where he is responsible for running the university's research and extension program as well as the statewide vegetable crop production and post-harvest technology. Fonseca also does some teaching and, in the near future, will take on full-time teaching responsibilities next year. "I'm very happy here because the weather is just fantastic for me," Fonseca says. "One of the things I'm really interested in is how plants survive in the desert. The highest yield in vegetable production can be achieved here in the desert under the right circumstances."

Importance of Mentoring to Career

While Fonseca's drive toward his niche of the environmental field was largely the result of innate curiosity, mentors were tremendously valuable to his career success in other ways. From his parents, Fonseca says he learned the values and mindset he needed to be successful. "My father is, in one word, responsible," Fonseca says. "And my mom taught me to never give up. She always said to be happy with what you have, but you also have to look beyond the normal boundaries for more." Fonseca's advisor in South Carolina, Jim Rushing, also had a big impact on how Fonseca defined himself as a scientist. "Among many other things, he taught me that what you do is important, even if it may not be important for some others. We have to keep in mind that our jobs are just a tiny thing, and we need to put what we know in our very tiny area in interaction with so many other things that are out there. When you start up an extension program, you can't just be a scientist." Fonseca is now a mentor himself in nearly every aspect of his job. Working in region with a largely Hispanic population, Fonseca relishes his ability to mentor students, technicians, post-docs, and anyone he works with. "I'm very interested in mentoring people," he says.

Fonseca says he finds the multi-faceted nature of his work, and his ability to integrate his scientific niche into so many different arenas, the most satisfying aspect of his work. "The fact I'm very versatile...I can sit down with a microbiologist, plant scientists, food scientists, engineers, businesspeople, and have a good conversation, is the highlight," he says. "My background is completely interdisciplinary. I'm still young and I'm still learning. That's the best thing I can provide to any program."

Fonseca also does consulting work outside the university, in both the United States and in Latin America. He finds it very satisfying because he gets to see immediate results. "I work with the whole range—growers, distributors, processors," he says. "It is very rewarding to see what you have learned is working for others." Recently, Fonseca also received grant funds to do work combining science and sociology—he will study why Hispanic workers seem to be moving away from fieldwork. "In California especially, there is a growing shortage of laborers," he explains. "We want to find out why, do a micro-examination of the workers' culture. We're going to run surveys and put workers together with growers in workshops. We may even do something on a national scale. It's a project with a lot of potential for collaboration."

Advice to Young Professionals

Fonseca says intellectual curiosity and his continuing passion for the work is what keeps him in his corner of the environmental field. "Organisms out there remind you that you are another living organism," he says. "It makes you feel more alive; to understand that you are not alone, there's always something new to find out. You never stop learning." For minorities interested in environmental careers, Fonseca gives specific advice drawn from his own career experiences. "I think it is good to set up short-term, medium-term, and long-term goals, and work hard for them," he says. "But being realistic, you also have to have other plans. You're always going to have downs no matter what...you're always going to run into situations where you're not achieving what you thought or hoped you would achieve. As a minority, sometimes you can be behind from the start. Even if you're treated well, sometimes just that fear that you won't be is an obstacle. Always think in a positive way...don't think about the obstacles, just do as much as you can with what you have, come good luck or bad luck."