Careers in Weed Science

Lynn Sosnoskie: Assistant Professor of Horticulture at Cornell University

Primary duties

My lab is focused on studying the biology, ecology, and management of weed in specialty crop systems. My technician, my students, and I have projects describing herbicide resistance in horseweed, Palmer amaranth, waterhemp, lambsquarters and many other species; we are evaluating the safety and efficacy of herbicides in vegetables and fruits; and we are exploring novel weed control strategies, such as vision-guided spraying and electrical weeding. I also have an extension appointment and regularly speak to growers, crop consultants and industry stakeholders about our results. And then there is the operations behind all the aforementioned tasks: I write grants and extension bulletins and manuscripts, I meet with my accounts manager to keep our budgets on track, I mentor students and staff, I review manuscripts and grants, I juggle the needs and wants of colleagues and cooperators and collaborators, and I answer e-mails (so many e-mails) and attend meetings (so many meetings). And I am very fortunate to have this opportunity.

How did you get involved in Weed Science?

I was working as a horticulturist at an arboretum in Pennsylvania and attending a series of extension training sessions and there was a specialist talking about dandelions...and I was captivated. Even when I went to graduate school for Plant Pathology I was still very interested in weeds. Ultimately i knew that I needed to make a switch. I just wasn't as interested in fungi or bacteria as I needed to be. But weeds, I had no issues reading, writing, or learning about. Even when my husband and I travel, I must look at the weeds. He has a whole photo album of me taking pictures of weeds with famous tourist destinations in the background (e.g. Eiffel Tower, the Coliseum, Torres del Paine...).

Path to Current Role

2005-2006 - Research Associate, UW-Madison

2006-2011 - Research Professional, University of Georgia

2012-2017 - Associate Project Scientist, UC-Davis

2017-2018 - Assistant Research Faculty, WSU

2018-2019 - Agronomy and weed science advisor, UC-ANR

Education

B.S. Lebanon Valley College *Biology*

M.S. University of Delaware *Plant Pathology*

Ph.D. The Ohio State University

What do you love about your job?

The people. My colleagues at Cornell, New York State IPM, and in the Cornell Cooperative Extension system. They have been exceptionally supportive of me. Matthew Ryan, Bryan Brown, and Toni DiTommaso have been and will be great trial partners. My technician, Liz Maloney, is the foundation of my program and I am learning so much from her local knowledge. My students Laura Pineda-Bermudez, Bethany Schulteis, and Aleah Butler-Jones have really invigorated me; they ask great questions. I'm also very lucky to have an extended network of weed science colleagues, Like Thierry Besancon (Rutgers) and Marcelo Moretti (Oregon State), among many others, to work with on projects. Growers in NY have been wonderful to collaborate with, too.

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Involvement in Professional Societies

Weed Science Society of America and the Northeast Weed Science Society. I have also been a member of the Southern, Western and California Weed Science Societies. Currently in the WSSA, I am a member-at-large on the Board of Directors (BOD). I have chaired or served as a member on many committees (Extension Committee (W11), Weed Control in Specialty Crops (E10), Outstanding Paper in Weed Science Subcommittee (W3e), Undergraduate Research Subcommittee (W3k), and many others. Same with the other societies I have belonged to (e.g. BOD, section chairs, committee memberships). There are always opportunities available.

What is exciting about the future of weed science?

Technology. I think there is a real focus across the discipline to develop and evaluate weed control strategies that reduce or eliminate the need for herbicides. I think that chemical control strategies will have important roles in weed suppression, but I love seeing the innovation in automated, precision technology. So many people and organizations are so creative and forward-thinking. I think the jokes about weed science being spray-and-pray may be off-putting for many people. I hope that lots of engineers and data scientists in the making, as well as other non-traditional weed science students, are intrigued by the possibilities.

Other interests?

I like to do many things outside of work (e.g. running, walking my dog, botanizing, traveling with my husband and reconnecting with my family), but I've really become invested in growing houseplants. And not any houseplants...the ones that are dreadful on the sales racks of greenhouses and hardware centers. I like nursing them back to health. My husband says that I'm atoning for all the plants I've killed over my career.

Imparting wisdom

We need to learn more about decision-making processes. It's one thing to learn about the biology and ecology of unwanted species and it's another thing to really understand why people do or don't do things to manage them. And it's not always about economics. There are lots of motivators driving people and I wish that I had thought to take some classes that could have helped me with the sociological aspect of the discipline.

Don't be ashamed about the path you took to get where you are. There are detours. There are gaps. There are resets. Technically, I was an eternal post-doc before being hired by Cornell. I spent almost 15 years in temporary positions…and I was afraid that I would never be a good candidate for a faculty position because of it. But those experiences allowed me to work with a wide variety of crops and weeds and I used that as a "selling point".

Pay attention to what your peers and colleagues are doing. Not from a competitive standpoint, but as a source of inspiration. And not just from a research standpoint. Pay attention to how they present in professional meetings. You can gain so much insight from seeing how other people tackle problems and explain ideas. It can easily lead to imposter syndrome (or make feelings worse) if you don't channel everything towards the positive, though. Graduate school (and beyond) is stressful and doing everything under the conditions we've experienced the last 1.5 years has added a unique element of difficulty. Be good to yourselves and others.

Connect with Lynn

I am very active on Twitter (@LynnSosnoskie and @vegfruitweedsci) and Instagram (@specialtycropweedscience), which I use as extension outreach tools. I can also be reached via e-mail: lms438@cornell.edu. My lab is currently in the process of building our website, which will include weed ID and herbicide symptomology image galleries, and links to manuscripts and other weed science-related websites