# Careers in Weed Science

## Steve Young: National Program Leader, USDA-ARS

**Primary duties**

Provide leadership and direction for national and regional research programs related to the development of integrated pest management programs (IPM) for invasive weeds and insects affecting agricultural crops, rangelands and natural ecosystems.

**What do you love about your job?**

The best part of my job as a national program leader is that I get to be involved in research and think about where science is going and how ARS scientists are helping to shape it and make it applicable in addressing the biggest issues and the needs of individual stakeholders. I also enjoy research for the flexibility and creativity it brings with every new opportunity.

**Imparting wisdom**

My one recommendation to students is to learn at least one technique, whether it is operating a high-level piece of lab equipment, performing a sensitive and detailed measurement, conducting a specialized experiment, or writing a policy paper or other type of document besides a journal paper. As a student, this will be the one and only time that you will have the most time to learn at least one specialized skill that you can take with you for the rest of your career.

My advice to students who are searching for a position, is to make sure that you do not overlook an opportunity and never assume that you are not qualified. Also, know what you want and how you want to spend your time. For me, after I got my MS degree, I knew where I wanted to go next, which was UC Davis, and the reason, which was to have control of my time. I was not accepted at first, but through a series of connections and being persistent, I got there and every position that I have had since, I have been able to decide how I wanted to spend my time and what I wanted to do in the context of each one. It has been a very interesting and rewarding journey that is not done, yet!

**Education**

B.S. 1996 Washington State University *Horticulture*

M.S. 2000 University of Idaho *Plant Science*

Ph.D. 2007 University of California, Davis *Soils and Biogeochemistry*

**What is exciting about the future of weed science?**

Weed science is like most any other field of study in biology - fundamental principles and tested methodologies that support reliable approaches. However, weed science is different from all others in the plant realm because of its ubiquitous nature. Weeds are everywhere from the backyard garden to the national park and impact everyone from the home owner to the land manager to the plant breeder to the policy maker to the.....national program leader. Because of the way weeds touch all places and people, the approach in how to deal with them is endless, if we remember their definition, which is a plant whose virtues have yet to be identified, some good and some bad. *What could be more exciting than to be in a field of science with so many different possibilities and directions to pursue?*

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## Path to Current Role

2021 - current National Program Leader, USDA-ARS, Beltsville, MD
2018 - 2021 Assistant Professor, Utah State University, Logan, UT
2015 - 2018 Adjunct Assistant Professor, Cornell University, Ithaca, NY
2014 - 2018 Director, Northeastern IPM Center, Cornell University, Ithaca, NY
2010 - 2014 Assistant Professor, University of Nebraska, North Platte, NE
2008 - 2010 Post Doctoral Research Assistant, Washington State University, Prosser, WA

## How did you begin working in Weed Science?

My upbringing was on the dry side of Washington, which might be considered the wrong side to some. The search for scorpions under rocks in the foothills of the Cascades and attempting to identify the grasses and tree species in the meadow pastures adjacent to the nearby Naches River consumed many a summer, which also involved the endless job of moving irrigation pipes by hand.

As an undergraduate student at Washington State University, I majored in horticulture primarily because I liked working outside and plants were what I was most comfortable with. Anything that crawled, walked, flew, or had some type of erratic movement was not of any great fascination to me. For completing my undergraduate degree, I decided to intern with an orchard/packing/shipping company in New Zealand and when I returned, I was invited to work for a family friend, who was an R&D scientist for Syngenta. Little did I know that this would be the start of my focus shifting from plants, in general, to weeds.

I moved on from eastern Washington to an equally dry location in southern Idaho for graduate school. As with most grad students, I had little money, a less than new car, and a lot of excitement for the next big chapter of my life. On the long drives in my 1981 Plymouth reliant that took me across the sagebrush steppe region that makes up the lower half of the panhandle state, I had a lot of time to think. Besides wondering if this would be the last trip in my old reliant, I also thought a lot about how plants could not only survive, but grow and reproduce on what appeared to be desert pavement. While my research was focused on weeds and their management in sugar beet, this question about plants and their ability to tolerate extremes still lingered in the back of my mind. In fact, it was the basis of my research that has continued through my PhD and two university faculty positions and even still today.

## Connect with Steve

To find out more, check out my bio in an edition of the Paper Trails published in ESA's Bulletin: https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/bes2.1233 or look me up on my USDA ARS profile: https://www.ars.usda.gov/people/steve-young-phd/