A Day in the Life: Mandy Liesch
Madeline Fisher

It doesn't take long when talking with soil physics student Mandy Liesch to notice how grateful she is to the people who've mentored her. Maybe this explains why the North Carolina State University Ph.D. student has been so quick to give back to her profession. Liesch, who holds a bachelor's degree from the University of Wisconsin-River Falls and a master's degree from Kansas State University, already serves on two SSSA committees: the graduate student committee and the K-12 education committee. To the latter, she has devoted much time in recent months, helping launch the new SSSA website for K-12 teachers and students (www.soils4teachers.org) and contributing to a "soils and society" chapter for a middle and high school textbook. Still, her motivation to give back isn't entirely pure, she says with a laugh: She gets as much from these activities as she gives—especially when working with kids and their passionate teachers. "It's kind of a mutual feedback of excitement," she says. "That's why I work with kids anyway."

Soil Horizons: How did you first get interested in soil science?

Liesch: By accident. I actually wanted nothing to do with crops and soil science in my high school ag programs; I wanted to be an animal scientist. However, I was on a study abroad program, wanting to study about sustainable agriculture. My contacts did not pan out. I had to write a 70-page paper on my experience and needed a research project. So, I walked into the Scottish Agricultural College, found an enthusiastic soil scientist, and I got hooked. It is amazing how enthusiasm for what you do can carry over into others.

Soil Horizons: Who has had the most influence on your career path so far?

Liesch: I have been fortunate enough to have some amazing mentors in my time, but there are two people who have gone beyond the call of duty to help me. William Anderson was one of the first people who I met at UW-River Falls and was a professor of mine for seven semesters. He was there through no less than four crazy schemes for world travel, helped me secure a place to present my research on Capitol Hill in DC, has written more letters of recommendations than I can count, and taught me valuable lessons about how to write. The other is Tyson Ochsner, the first supervisor I had on U.S. soil, and who helped focus some of my crazy enthusiasm into an actual research project. He was also responsible for getting me no less than three research jobs, patiently indulged many bizarre conversations, and made me feel like a part of the family.

Soil Horizons: How did you decide to start serving on SSSA committees as a grad student and what's that been like?

Liesch: A wise man told me that life was 60% doing your job and 40% giving back to others. I have only been a member of SSSA K-12 for a year now, and it was like walking into a passionate family. The people who are regularly involved on this committee are so driven to create a better environment for students to learn in and generating high quality programs, that their enthusiasm is contagious. I don’t think anyone has questioned me or treated me differently because I’m a grad student—I’m pretty sure that many don’t even know.

I was actually invited to serve on the grad student committee, and a majority of this committee is populated by a group of passionate graduate students. Our opinion, as graduate students, can really be heard by the Societies, and our primary function is to create an enriching environment for graduate students at the meetings. The time commitment is minimal and the experience is rewarding. Committee work allows you to associate with like-minded people who have a common goal. It is also a great form of networking.

Soil Horizons: Where does your own passion for K-12 education come from?

Mandy Liesch is a Ph.D. student at North Carolina State University who is passionate about soils.
**Liesch:** Kids are fun! Outdoor/experiential education is my background. I tend to be very effervescent about how much I love being outdoors, and kids respond to my crazy stories with their sheer joy for life and infectious desire to learn. After my first year of college, I tried unsuccessfully to get an internship in the agricultural field and ended up working for the local Girl Scout Council at a summer camp. As I was leaving camp for the Fourth of July holiday, there were 85 campers chanting my name, and I was hooked. So, I teach them that soil science is the greatest thing ever, and they give me an ego boost and can inject energy and passion into my everyday research. It is very rewarding to see little kids who are terrified of spiders and grubs start to pick them up or pop raw veggies into their mouths from our community gardens.

**Soil Horizons:** What do you think needs to happen to get more students excited about soils and engaged in the field?

**Liesch:** Soil science is the greatest thing ever! If people knew about the awe-some things we do, and how pervasive it is in everyday life, they would clearly be enchanted—or at least think about it. Clearly, I advocate for shameless self-promotion. Our biggest hurdle is our lovely scientific minds being unable to disseminate this information outside the ivory tower. Sometimes it feels that scientific writing goes out of its way to be cryptic. We need to be our own PR agents. We are doing a much better job now, especially with politicians, but we need to keep working on it.

**Soil Horizons:** If you could invite three soil scientists, living or dead, to dinner, who would you invite and why?

**Liesch:** Oh my, this is a tricky question. Just three? I’ve had the privilege of knowing and associating with many great scientists over time, though, I tend to value personal characteristics over broad intellect. I love storytellers, and I think one of my favorite people who I have had the privilege of meeting with is John Ryan. He has spent a majority of his career in a war zone, freely gives career advice, and is one of the nicest people I have met. I am told that the late Don Kirkham was a delightful man to talk to, and a brilliant soil physicist; however, in his stead; I would invite his daughter, Mary Beth Kirkham. She is a delightful woman, also full of stories, very complimentary, and a wonderful listener. She is an amazing role model, and full of valuable advice. The third individual was a tie, both have repeatedly impressed me with enthusiasm and love for what they do. This would be Newell Kitchen and David Radcliffe. Both of them contributed to my involvement with the Societies in the first place. Both were some of the first scientists who I talked to and taught me that established scientists are not terrifying, but can be fun.

*If you have an idea for someone to profile for our “Day in the Life” series, contact Lisa Al-Amoodi at lalamoodi@sciencesocieties.org.*