Science Societies

Looking back, looking forward: Reflections on our science and community

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2026 SSSA President Aaron Daigh.

In this column, 2026 SSSA President Aaron Daigh shares a little about his career journey and offers a few perspectives on where we are as a scientific community and how we might continue growing together.

Hello to all members of the Soil Science Society of America (SSSA). I'm Aaron Daigh, and I have the honor of serving as your 90th SSSA president. Some of you I've had the pleasure of working with directly over the past 20 years since I joined the Society; others I may be meeting for the first time through this column. Whether you're new to soil science or a longtime member, I wanted to use this space to share a bit about my journey and offer a few perspectives on where we are as a scientific community and how we might continue growing together.

A kid from the Ozarks

I think it may be useful to first state that I never expected to be here. I grew up in the Ozark Mountains of Arkansas, and my sister and I were the first in our family to attend college. My parents didn't have the opportunity to go, but when the chance came for me, I figured I should at least give it a try even though I wasn't sure how long it would last.

During the first couple of years, I found both challenges and excitement. I got knocked down plenty of times, but I was also stubborn and resilient enough to keep getting back up. After two years, I changed majors in an effort to find my people and a career

path that aligned better with who I was. Then, to my surprise, I found a passion for research during my undergraduate years. I had the opportunity to take on my first research project while working hourly in a soil microbial ecology lab. That moment, though small on the surface, was pivotal. It helped me see the joy of investigating questions that mattered—scientific questions connected to the land, to people, and to the real-world challenges we face.

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Those early days in the lab evolved into more opportunities: serving as a co-coach for regional soil judging competitions, involvement with student organizations, and eventually graduate school. Along the way, I took on teaching assistantships that gave me both a love of instruction and the motivation to work through the nerves that come with public speaking. Spoiler: the nerves never fully go away, but you learn to carry them well.

After finishing my Ph.D. in 2013, life remained as vibrant and unpredictable as ever. I didn't anticipate that I'd one day be serving the SSSA community at a level that would lead to being your president … and certainly not this early in my career. But that's one of the joys of this profession: unexpected doors open when you follow the work and the people who share your values. My career has taken me through research on soil, water, and remediation; from fundamental soil physics to applied agronomic practices and

engineering and into collaborations with researchers in plant sciences, geotechnical engineering, and public health. I've had the privilege of working with many types of scientists, engineers, professionals, and community members. My career has been shaped not just by science, but by people … and by the SSSA community that's helped me grow.

It's humbling to think that I joined SSSA 20 years ago as a junior in college. That semester marked both my first research experience and my first SSSA membership. And now I'm writing this letter as your president. I've had the joy of building a meaningful career, traveling the world to places I certainly never imagined visiting as a kid in the Ozarks and creating a rich personal life with my wife and daughter. These blessings (like this leadership opportunity) come from the convergence of daily challenges and daily opportunities.

My hope is that each of you finds a similarly joyful experience. Not without struggle. Not without growth. But with the knowledge that this Society, and the science we contribute to, can help shape a life filled with curiosity, collaboration, and impact.

Acknowledging where we are

Before looking ahead, I want to acknowledge the challenges many of our members have faced this past year. Career disruptions, funding uncertainties, and contract withdrawals have affected colleagues across our community. For our early career members and students (those we're counting on to fill a substantial workforce shortage in the agricultural and environmental sciences), these pressures are especially acute. I've heard from many of you, and I want you to know that your Society sees you, and supporting your success is always central to what we do.

This brings me to a question I keep returning to as I begin this role: Who do we give our time to? Is it a community? Social media? Your family? A network of colleagues? Your neighbors? Yourself? A draining workplace? A cause you believe in? I keep coming back to this because the answer shapes the story of our lives. Where we give our time, we give our care. And where we give our care, we leave a mark. As scientists, we often invest our time in building knowledge. But knowledge alone isn't the end goal—it's the fact that knowledge enhances the human experience. It provides context, expands empathy, opens new possibilities, and improves lives.



As scientists, we often invest our time in building knowledge. But knowledge alone isn't the end goal—it's the fact that knowledge enhances the human experience. Photo by Dr. José Dörner, Institute of Agricultural Engineering and Soils (IIAS), Austral University of Chile.

Perspectives from CANVAS 2025: Looking 40 years into the future

At the CANVAS meeting in Salt Lake City this past November, our keynote panelists included Drs. Asmeret Asefaw Berhe (moderator), Jayson Lusk, Stella Salvo, and Scott Shearer, who shared insights on their projections for the next 40 years (i.e., the likely duration most of our current students will have in their upcoming careers). Their conversation gave me both pause and hope.

Asmeret kickstarted the keynote panel with "*We are gathering at a critical moment … hunger remains a serious or alarming crisis in 42 countries. In 27 countries, it has actually worsened since 2016. The United Nations 2030 agenda called for zero hunger through the Sustainable Development Goals (SDGs), particularly SDG 2, but nearly a decade after the SDGs were established, progress has stalled or reversed. The goals of ending malnutrition, doubling agricultural productivity, and ensuring sustainable food systems remain distant aspirations. This is our call to action."*



At the opening keynote session during the CANVAS 2025 meeting in November, Dr. Asmeret Asefaw Berhe spoke about some of the critical challenges we are facing and presented a number of critical questions for attendees, including, "Are we preparing the next generation for these challenges?" Photo by Lorene Lynn.

Asmeret went on to talk about how multiple stressors on our planet are at play during these crises: from climate change, soil degradation, and persistent global inequities to geopolitical conflicts across the world to name a few. Asmeret presented critical questions for our community: "*How do we balance basic research with applications? How do we ensure equitable access? Are we preparing the next generation for these challenges? And should we be convening to do the*

same [as the physics community] to define our scientific frontiers for the three Societies, and together chart the course forward?" Before Asmeret turned her questions to the keynote panelists, she clearly stated: *"The future is not predetermined… it will be shaped by the choices we make, the innovations we pursue, and more importantly the leaders we inspire."*

During the keynote discussion, it was clear that the opportunities ahead are real. Scott foresees advances in AI, automation, and precision agriculture that are poised to transform how we work—from smaller equipment that reduces soil compaction to on-demand extension publications personalized for producers worldwide. Jayson noted that Purdue estimates 100,000 new agricultural jobs annually in the coming years. The workforce demand is there; we need to find and train the students to meet it. Stella reminded us that "*food is a moral right*" (echoing Borlaug's Nobel acceptance) and that consistent access to resources, including high quality seed, remains central to that mission.



The opening keynote included a panel discussion with (l to r) Drs. Asmeret Asefaw Berhe (moderator), Jayson Lusk, Stella Salvo, and Scott Shearer.

Yet the panelists were candid about challenges. Stella continued by underscoring that food security remains a "*painful inequity*" and that equal access must remain central to our ethos. Jayson raised concerns about stagnating public research funding in the U.S. while other nations increase theirs, reminding us that "*our greatest asset is the universities we have in this country*" and that we need a "*forward-looking vision*" that embraces diverse funding investments. Scott emphasized the need to "*get out of our silos,"* pointing to AI farming ventures started by people with no agricultural background as both opportunity and warning.

One particular exchange stuck with me: When Asmeret asked what technological frontier could advance agriculture the most in the next 40 years, Scott said without

hesitation, "*Whatever we can do to sense below the surface. We focus on the plant with sensing, but we do little below the ground. We know so little about that environment.*" That's our domain in SSSA. That's our opportunity.

The year ahead

In the columns that follow this year, I'll focus more on specific Society activities, upcoming needs and opportunities, and perspectives on where our science and discipline are heading as we advance. This first column felt like the right place to introduce myself, acknowledge the moment we're in, and share some comments from colleagues who are thinking deeply about our future.

What gives me confidence is this: every challenge I heard discussed at CANVAS 2025 was paired with people working to address it. That's always been the character of this Society. We face the problems. We support each other. We do the work. My hope is that each of you, whether you're a student just starting out, an early career member navigating uncertainties, a mid-career scientist such as myself, or a longtime member who's seen the field evolve, I hope each of you finds that same sense of purpose in the work ahead.

Thank you for entrusting me with this role. I'm looking forward to the year ahead and to the work we'll do together because our science and our community is worth giving our time to.

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