Science Societies

Utah delivers: A day of soil scenes and water wisdom at CANVAS 2025

By Dianna K. Bagnall

December 23, 2025

The Bear River Migratory Bird Refuge was the first stop on ASA's Land Management and Conservation Section tour during CANVAS 2025. Photo by Ray Weil.

About 30 eager scientists kicked off CANVAS 2025 early on November 8, boarding a bus at the Salt Palace Convention Center with coffee and muffins in hand. Their mission? To explore what makes Utah's soil health scene tick as part of the ASA's Land Management and Conservation Section tour.

As the bus rolled north from Salt Lake City, local organizers Tony Richards and Katie Ottmann of the Utah Department of Agriculture and Food set the stage: Utah's dealing with some serious water drama (looking at you, shrinking Great Salt Lake), farmers are pivoting to high-value crops, and soil health has an growing role in solutions for water, soil, and food security of the region.

Birds, wetlands, and virtual grazing

First up was the Bear River Migratory Bird Refuge where Matt Yost and Madelyn Kunzler of Utah State University proved that soil health isn't just for crop fields. For 90 minutes, the group dove into how wetlands and rangelands fit into the Utah’s unique soil health story, explored the benefits and limitations of "virtual grazing," and grappled with the ecological challenges of the region.

McMurdie Farms: When soil pits tell stories

After a solid lunch at The Old Grist Mill (because you can't do science on an empty stomach), the bus took a quick stop along the road to examine local irrigation methods that are so easy you can manage them in your “church clothes.” Then the group headed to Braden McMurdie's farm in Deweyville. Here's where things got real: Braden, Tony, and Katie showed off two soils in adjacent fields using pits and shovels. One soil had been living the soil health dream for years with cover crops and reduced tillage

while the other was a newer convert to the regenerative party. The difference? Night and day. Better structure, more roots, thriving biology—it was like watching a before-and-after makeover, but for soil. Braden talked about his soil health journey and emphasized the importance of winning the “profitability contest” rather than the “yield contest” to keep the ranch’s financial health strong.

Left: *Healthy soil on the McMurdie Ranch.* ***Right:*** *Tony Richards demonstrates flood irrigation techniques. Photos by Ray Weil.*

Water optimization trial: Science in action

The final stop was Utah State's Water Optimization Trial near Logan where researchers like Tejinder Singh and Matt Yost are throwing everything at the water scarcity problem: no-till, cover crops, and more precision irrigation strategies than you thought existed. The goal? Figure out how to grow more food with less water while keeping the soil happy. In the arid West, this isn't just nice to have—it's absolutely essential. Participants walked the plots, asked tough questions, and left with ideas about how to scale these practices beyond the research station.

Matt Yost tells tour participants about irrigation techniques. Photo by Ray Weil.

The bottom line

The tour was a huge success. Participants were deeply engaged, asking so many questions that organizer had to hustle to keep the group on time. The scenic Utah views and local guides made for constant conversion on the bus and off.

By the time everyone rolled back into Salt Lake City around 6 p.m., they'd covered a lot of ground—literally and figuratively. The tour wasn't just about fun; it was about solutions that are actually working. Real farmers, real research, real results. It's the kind of day that reminds you why land conservation and soil health matter and why bringing researchers, farmers, and ag professionals together is important for thinking through tough problems and sharing solutions. Plus, nothing builds camaraderie quite like digging into a soil pit together and collectively nerding out over aggregate stability.

More meetings articles

Back to current issue

Back to home