USU Soil Judging Students Claim Regional Title

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12/06/2018

Miles Coker, Emma Thompson and Jamie Lowham brought home the team trophy from the regional soil judging competition. They were top in overall team ranking, group competition, and Thompson won the individual contest.

Students from Utah State University swept the regional soil judging competition recently hosted by Oregon State University. The region ranges from Oregon to Colorado, all areas with very different kinds of soils.

“The 5130 Soils Morphology class is like this competition,” said Miles Coker, a USU senior from Colorado in the Department of Plants, Soils and Climate (PSC). “It’s the definition of how you find out where the soil is from. It’s like putting together a puzzle. There’s a lot of interpretation and a lot of rules.”

Once the soil judging competition begins, students have one hour to classify a soil that they have never seen before by observing how water moves on the soil and identifying variations in colors and textures—but the work doesn’t stop there. Jamie Lowham, a USU senior from Wyoming, said application is why soil scientists classify soils in the first place.

“Most competitions you’ll figure out if the soil is suitable for a basement or a landfill,” Lowham said. “With this competition, we figured out the likelihood of having a landslide or a fire that could burn plants growing in the soil.”

The soil from Oregon was different from anything the USU students had seen before according to Emma Thompson, a USU senior from Wisconsin studying land, plant and climate systems.

“What’s unique about the Oregon soils is that they’re all volcanic soils,” Thompson said. “They’re called andosols. We don’t have those here in Utah. There is a whole different set of rules for classifying them, but since we don’t see them in the morphology class, we just mention them, you don’t really get to know the rules of how they behave.”

Thompson’s previous success in national and international competition prepared her for situations like this one. She was part of a U.S. soils judging team that took first place in competition in Brazil earlier this year. Now Thompson has a process that has worked every time.

“It involves going through the books, going through the handbooks, going through the keys to soil taxonomy to find out all the possible combinations, then figuring out what those combinations look like in real life,” Thompson said.

Classifying a new soil requires scientists to learn the processes that apply in that specific area. Thompson said she takes the concepts learned at USU and applies them to a soil she has never seen before.

USU took first place in the overall team rankings, first place in the group competition, and Thompson took first place in the individual competition. The USU soil judging students are preparing to participate in the national competition at the end of spring semester 2019 in San Luis Obispo, California.