Science Societies

Results from the 2026 National Soil Judging Contest

By Matthew Ricker, North Carolina State University

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Students participating in the 2026 National Collegiate Soils Contest.

> The 2026 National Collegiate Soils Contest took place March 22–27 near Raleigh, NC. Sponsored by the Soil Science Society of America and the American Society of Agronomy, it was the largest national soil judging contest ever conducted with 338 participants and more than 30 volunteers from USDA-NRCS and the Soil Science Society of North Carolina on site to teach students about soils of the southeastern region of the United States.

The Virginia Tech Hokies Soil Judging Team finished first in overall score out 28 teams at the 2026 National Collegiate Soils Contest sponsored by the Soil Science Society of America and the American Society of Agronomy. The contest was hosted by Dr. Matthew Ricker of North Carolina State University from March 22–27 near Raleigh, NC. This was the largest national soil judging contest ever conducted with 338 participants and more than 30 volunteers from USDA-NRCS and the Soil Science Society of North Carolina on site to teach students about soils of the southeastern region of the United States.

The Virginia Tech Hokies (Figure 1) placed first overall in the event followed by University of Missouri, University of Maryland, University of Wisconsin–Platteville, University of Idaho, Purdue University, University of Kentucky, University of Georgia, West Virginia University, and Cal Poly–San Luis Obispo.

2026 national champions from Virginia Tech. ***Left to right (front):*** *Sarah Michael, Bailey Brethren, Holden Mrizek, Sinclair Anderson, C.J. Rufe, Lee Alcorn, Rachel Parmele, Cara Zhang, and Assistant Coach Will Hernandez.* ***Left to right (back):*** *Joey Johnson, Steven Conder, Coach John Galbraith, Andy Beattie, Campbell Fox, asst. contest host Jacob Cheers, and contest host Matt Ricker.*

In the group judging event, Cal Poly–San Luis Obispo placed first (Figure 2), followed by Penn State University, University of Georgia, University of Tennessee–Knoxville, and West Virginia University as the top five group judging teams.

Figure 2. Cal Poly–San Luis Obispo took first overall in group judging. From left to right: Lauren Larson, Gavin Wong, Kacie Giordano, (Gordon Rees), Erin Kennedy, Sophia Tinkey, Gabby Lewis, Sophia Hoang, Sage Urey, Maxwell Casem, Danny Benitez Saucedo, Mollie Bressler, Nick Baham, (Jacob Cheers), and (M.C. Ricker).

Figure 3. Tegan Macy, shown here with the national championship belt, took first place overall in the individual contest.

The top individual winner out of 112 participating students was Tegan Macy of University of Idaho (Figure 3). Students placing 2–10 were India Williams of University of Missouri, Cole Chapman of University of Maryland, Holden Mrizek of Virginia Tech, Jose Villanos of University of Kentucky, Jake Schnekel of University of Wisconsin–Platteville, Zie Goodman of University of Maryland, Emma Quint of West Virginia University, Sinclair Anderson of Virginia Tech, and Callie Goodwin of University of Tennessee–Knoxville.

Eight of the top 10 students will represent the United States at the 23rd World Congress of the International Union of Soil Sciences in Nanjing, China on June 2–7, 2026. Funding for the trip was graciously provided by the Agronomic Science Foundation.

There were four practice days and two contest days during the contest with 27 soil pits in Wake and Johnson County, North Carolina. Sites spanned the Piedmont and Coastal Plain margins near the Fall Line. The soils shown were Entisols, Inceptisols, Ultisols, and Alfisols with many being very old because the area has never been glaciated or covered with recently transported materials. Teams saw a wide variety and multiple combinations of parent materials including alluvium, colluvium, residuum, and coastal plain deposits in pasture and forest. They learned about slickensides, plinthite, ironstone, deep sandy surfaces, discontinuities, and rhodic (deep red) colors.

Scenes from the 2026 National Collegiate Soils Contest courtesy of the Soil Science Society of North Carolina Soil Science Photo Gallery.

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The contest consisted of three individual pits and then two group judging pits, and 160 student alternates also judged two group pits on the individual contest day (Figure 4). Contest sites were located at Clemmons Educational State Forest in Clayton, NC and Iron Horse Farms in Fuquay-Varina, NC to show unique soils of the region (Figure 5).

Figure 4. Contest-day photos from the group judging site.

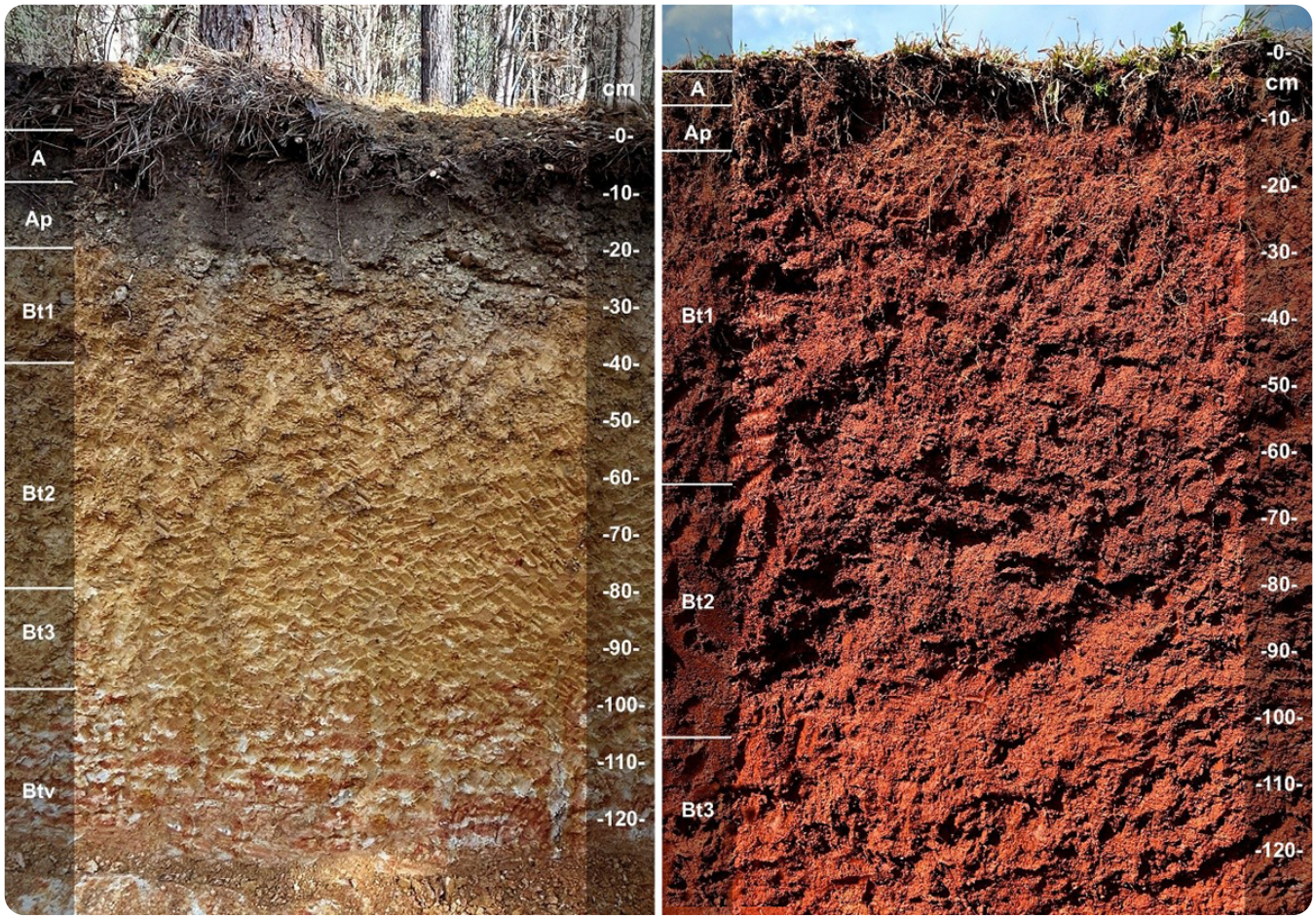

Figure 5. Example of plinthite formed in coastal plain fluviomarine sediments (Plinthic Hapludult, Varina Series Variant) and rhodic soil colors formed from mafic gabbro residuum (Rhodic Paleudalf, Coronaca Series).

“This contest was very educational for the students who travelled from other regions to see ancient soils and saprolite,” says coach John Galbraith, professor of soil and wetland sciences in the School of Plant and Environmental Sciences at Virginia Tech.

“The contest was beautifully designed to reinforce the concepts shown in practice or described by the host or handbook. It was an open-book test that allowed the students to make high quality descriptions. We all greatly appreciate the host, the large number of assistants and volunteers, and their willingness to accommodate such a large number of students interested in learning about their soils.

“Soil judging is a perfect way for students to enhance their resume and gain some practical field skills. The were able to evaluate how well the soils were for houses with basements, septic tanks drain fields, local roads, loblolly pines, and suitability for large applications of swine manure. The students saw how the soil classification system worked to separate soils based on their suitability or limitations for multiple land uses.”

All photos from the contest can be found at the Soil Science Society of North Carolina Soil Science Photo Gallery.

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