



Soil and Plant Science Division Technical Soil Services North Central Soil Survey Region

University of Wisconsin-Stevens Point Hosts the 2025 National Collegiate Soil Judging Contest

North Central Soil Survey Region and Wisconsin NRCS

Purpose

Soil survey staff from several offices assisted in the 2025 National Collegiate Soil Judging contest hosted by the University of Wisconsin-Stevens Point (UWSP), in Portage County during the week of April 27–May 2. Dr. Bryant Scharenbroch (College of Natural Resources, Soil and Waste Resources) organized the contest, which was the first national contest held by UWSP. Teams from 28 universities around the country competed in this national contest, totaling over 250 students.

Stevens Point is located in the northern part of the country, and the cold and wet weather makes it challenging to hold a contest that is always in the spring. To overcome this challenge, Dr. Scharenbroch recruited NRCS soil scientists to describe the soils in July 2024 (fig. 1). Jeff Deniger (retired, NRCS Wisconsin), Kevin Traastad (NRCS Wisconsin), Mike England (NRCS Wisconsin), Joel Gebhard (NRCS-Soil and Plant Science Division (SPSD), and Roz Remsen (Davey Tree) spent a week describing 24 soil pits for practice and contest use. This spring, Gebhard, Traastad, and England, with the help of Matt Wagner (NRCS SPSP), checked and redescribed all the soils to maintain accuracy for the contest.

Background

Practice for the contest was held during the first 4 days as teams travelled across Portage County to see its wide range of soils. Practice pits offered students the opportunity to become familiar with the local parent materials, soil properties, and local land use management and concerns. Portage County is at the conflux of many glacial events, including pre-Illinoian glaciation, the edge of the most recent Wisconsin glaciation, and includes till, glacial outwash, glacial lake sediments, and other glaciofluvial materials. Dr. Scharenbroch highlighted the diversity of land use within the county by including sites on large cropland, small-scale grazing and vegetable farms, forested sites, and wet sites. The

variety of soils was exciting and included Alfisols, Spodosols, Mollisols, Inceptisols, and Entisols. Students observed glossic horizons and lamellae. One site provided students with a glimpse into residuum overlain by thin layers of till and outwash. Nearly all of the contest profiles had at least one or more discontinuities in glacial materials (fig. 2). The teams were directed to local wetlands to experience Histosols, since wetlands are abundant in Wisconsin, but are uncommon across the country.



Figure 1.—The contest officials describing pits on a warm, sunny day in July 2024. From left to right: Jeff Deniger, Joel Gebhard, Kevin Traastad, Mike England, and Roz Remsen.

In addition to the practice and contest events, UWSP offered an array of activities, including the opening ceremony with a geomorphology presentation, a career exploration fair at the Food and Farm Exploration Center, and a Wisconsin polka dance (with a live band!) and brat fry on a local farm. Dr. Scharenbroch managed these events with the help of many soil science students from UWSP.

The individual contest was held at the Wisconsin Lions Camp in Rosholt, WI. This site offered beautiful soil profiles with varied glacial parent materials (fig. 2). Students and coaches gathered at Dr. Scharenbroch's SOIL Farm for the group contest pits (fig. 3).

During the contest, there were many UWSP alumni and NRCS professionals who helped keep the practice pits clean, managed students on the two contest days, and assisted with the additional events. On the contest days, over a dozen NRCS employees were present and engaged with students and coaches. The amount of help from NRCS staff, other UWSP soil alumni, and current UWSP students was incredible, and coaches and students commented on their commitment to hold a great contest. Current SPSP staff who are also UWSP alumni who returned to dedicate their week to the contest included Krista Bryan (Dickinson, ND), Nathan Stremcha (Salina, KS), Garrett Klepitsch (Onalaska, WI), and Joel Gebhard (Rhinelander, WI).



Figure 2.—A contest pit that developed from glacial parent materials and has clear discontinuities in the profile.



Figure 3.—Students, coaches, and volunteers gathered at the group contest site to listen as Dr. Scharenbroch provides the contest rules.

Key Outcomes

Overall, the students found the contest quite challenging and the soils exciting. Glacial landscapes and materials can be hard to identify and understand, but students and coaches enjoyed the opportunity to learn in a new landscape. Many were able to really experience sand for the first time.

All the students at this contest sharpened their soil describing and classifying skills and learned how to assess the soil for locally important land use interpretations. Collegiate soil judging has long been an important institution for giving aspiring soil scientists and conservationists field skills necessary to understand soils and landscapes. Students and professors alike enjoyed the large presence of NRCS staff at the contest, making it a great opportunity for collaboration, connection, and discussion. Students were excited to see recently graduated former soil judges now working as professional soil scientists. Many of the coaches are professors involved in National Cooperative Soil Survey, so they were also glad to meet new and reconnect with familiar soil scientists in the agency.

Mention of names or commercial products in this document does not imply recommendation or endorsement by the USDA.