



Soil and Plant Science Division

Technical Soil Services

Northwest and North Central Soil Survey Regions

Nebraska Future Farmers of America West Region Land Judging Contest

Fort Morgan, Colorado, Major Land Resource Area (MLRA) Soil Survey Office (SSO) and Rapid City, South Dakota, MLRA SSO

Purpose

In 2025, the Nebraska Future Farmers of America (FFA), Upper Niobrara White Natural Resource District (NRD), and Rushville, NE, NRCS Field Office reached out to the Fort Morgan MLRA SSO requesting assistance with the Nebraska FFA West Region Land Judging contest. They asked the soil scientists in the MLRA SSO to select sites and dig, describe, and score four soil pits for the upcoming contest. The land judging contest is one of the career development events that tests FFA members' skills learned through agricultural education and helps prepare the students for the State competition.

Background

Soil scientists from SPSD are typically the leads for site selection, preparation of the soil pits, and filling out the official answer key for each of the soil pits. Due to the long distance from Fort Morgan, CO, to the location of this year's contest, soil survey leader David Jalali from the Rapid City, SD, MLRA SSO assisted the local NRCS field office with selecting a site as well as the four soil pit locations. MLRA SSO Leader Andy Steinert from the Fort Morgan MLRA SSO dug, described, and scored the soil pits for the contest during the week of September 22, 2025.

Key Outcomes

A total of 60 students participated in the 2025 land judging contest. Volunteers from the local NRD as well as retired NRCS staff were on hand during the event to provide support and share their knowledge and love of soil science with the students.

During the contest, students gained valuable knowledge of how to collect soils data in the field (fig. 1) and how soils data are used to provide suitabilities and limitations for use. For example, soil pits one and four (fig. 2) had the best land capability class out of the four pits; thus, the soil in those pits had the least limitations and best suitabilities for most soil interpretations.

Soils education supports conservation planning because soils, and the knowledge of them, are the basis for all conservation planning activities. A conservation plan should not be made without first looking at the soil. Students learned that soil pits one, three, and four would require the least intensive conservation practices while soil pit two (fig. 3) would require more intensive conservation practices due to the higher percentage of slope and the surface texture at this pit.

Teaching our next generation to understand the land is the most important step in our overall goal of helping people help the land. These students are our future NRCS customers and employees as well as future stewards of the land. FFA, NRDs, and schools are our partners in educating our youth and the next generation of farmers, ranchers, foresters, soil scientists, and conservationists. These students will go on to feed the United States and the world.



Figure 1.—Students gather data at one of the soil pits (photo by Robin Foulk, retired NRCS district conservationist).

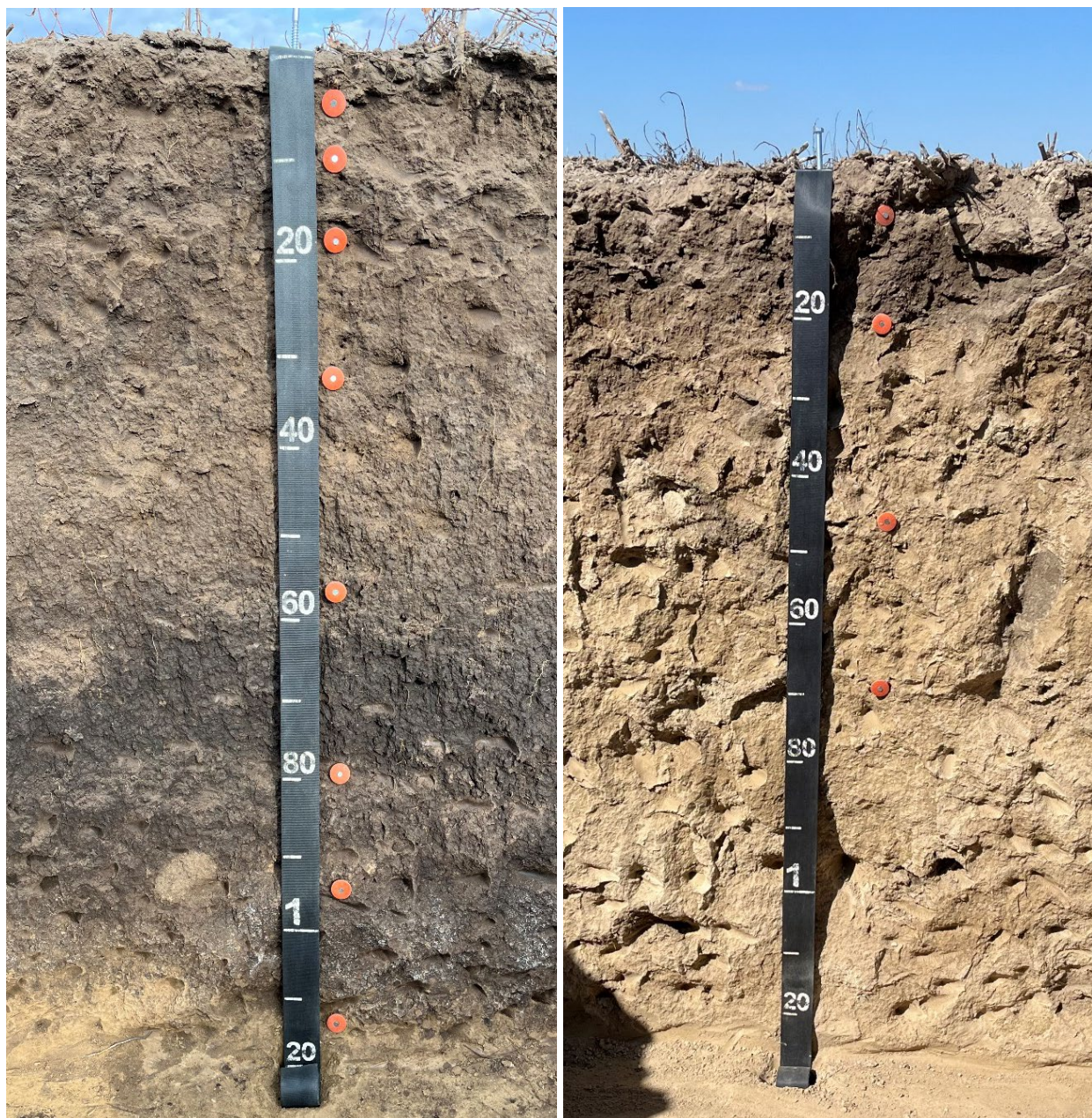


Figure 2.—The photo on the left shows soil pit one, a fine, smectitic, mesic Pachic Argiustolls on a 2 percent slope in a swale. The photo on the right shows soil pit four, a fine loamy, mixed, superactive, mesic Aridic Argiustolls on a 1 percent slope on the summit of an interfluvium.

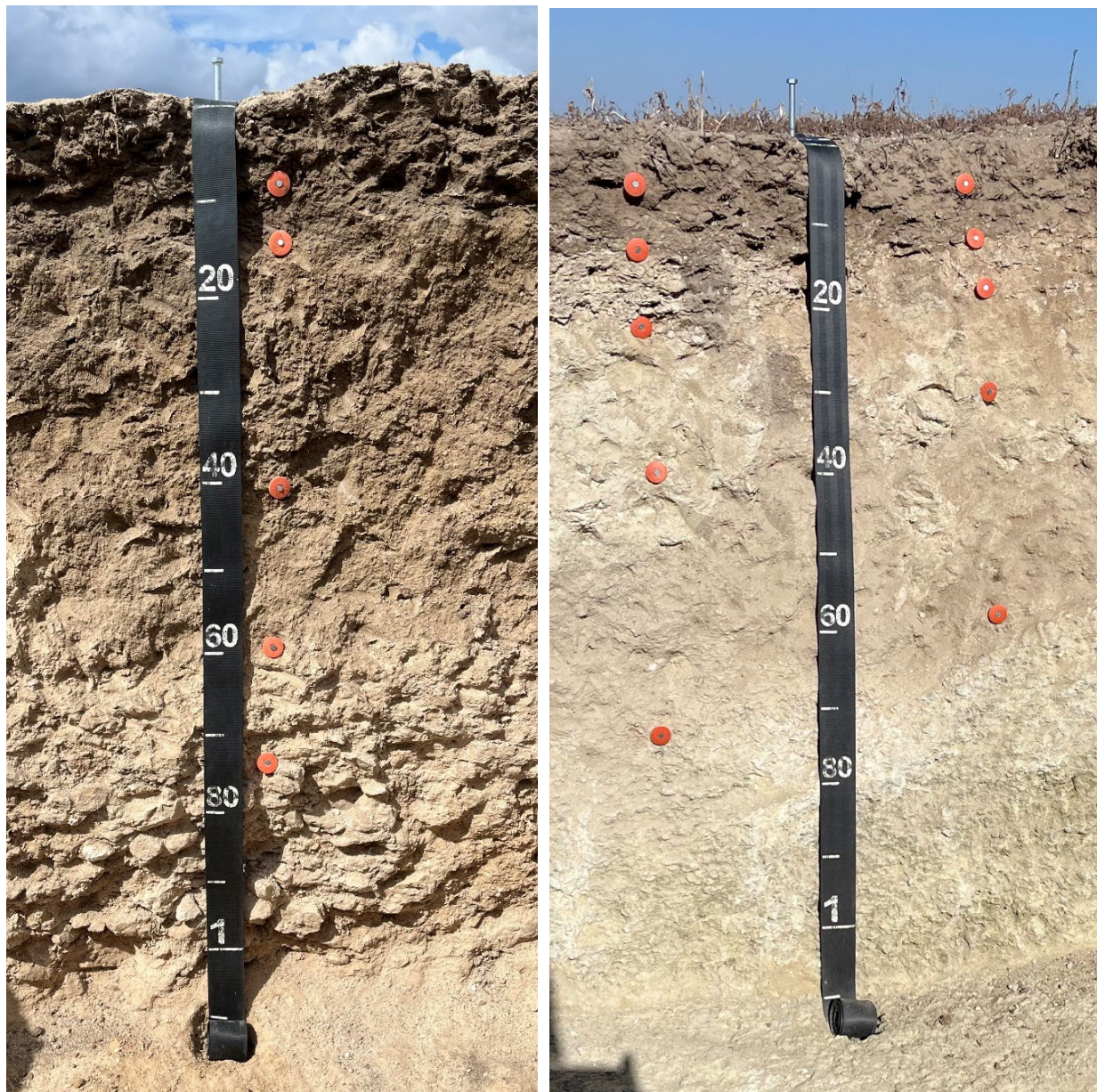


Figure 3.—The photo on the left shows soil pit two, a fine, smectitic, mesic Calcidic Haplustalfs on an 8 percent slope on the backslope of the hill. The photo on the right shows soil pit three, a fine-loamy, mixed, superactive, calcareous, mesic Aridic Ustorthents on an 8 percent slope on a backslope of the hill.