



Soil and Plant Science Division

Technical Soil Services

South Central Soil Survey Region

Medina County Farm Bureau Ag Day

Kerrville, Texas, Major Land Resource Area (MLRA) Soil Survey Office (SSO)

Purpose

The purpose of the technical soil service was to help fourth-grade students from Medina County understand what soil is and the role it plays in their daily lives.

Background

On Friday May 2, 2025, Kerrville MRLA SSO staff drove south to Hondo, Texas, for the Medina County Farm Bureau Ag Day (fig. 1). During the day, Travis Waiser and Jarred Goedeke gave educational talks to fourth-grade students over the course of twelve 15-minute sessions, presenting to 516 students and their teachers.

To begin their talks, Waiser and Goedeke discussed what an ecosystem is and how soil fits into the bigger picture. From there, they discussed the four components that make up soil: mineral matter, water, air, and organic matter. Waiser and Goedeke helped students list off the many impacts soil has on our daily lives (fig. 2). Most of the discussed values of soil centered around its role in supporting plant life. Plants provide oxygen, provide food production for both humans and livestock, improve water infiltration, provide materials to create shelter, and can be transformed into clothing.

Waiser and Goedeke then talked about the different soil particle sizes and how these particle sizes and their combinations can influence the plants that grow within them. To make distinctions between the different particle sizes, they compared sand to a beach ball, silt to a baseball, and clay to hole punches.

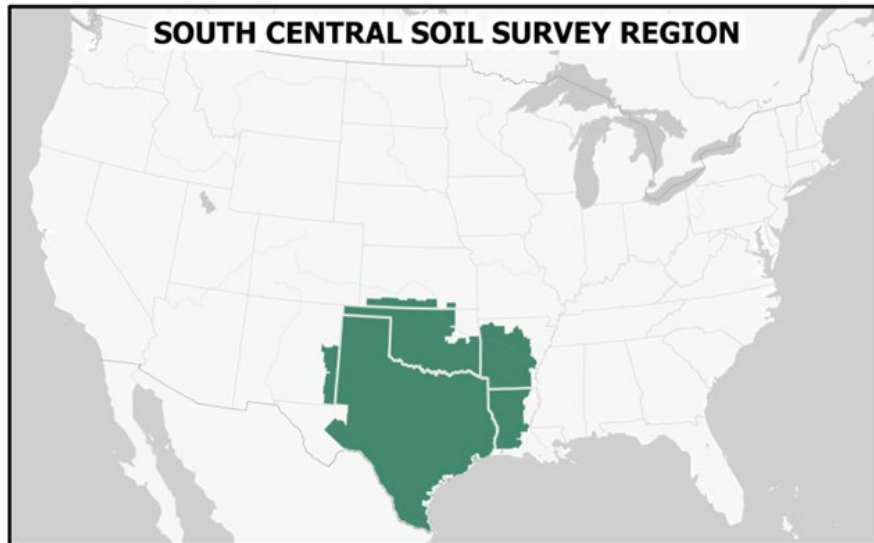


Figure 1. The South Central Soil Survey Region where the Kerrville, Texas, MLRA SSO is located.



Figure 2.—Travis Waiser, Kerrville MLRA SSO soil scientist and MLRA leader, asked students to name different ways soil affects everyday life.

Key Outcomes

The students were excited to learn about how soil impacts their daily lives—from the clothes they wear to the food they eat. Following this Ag Day, students have a better understanding of what components make up soil, the differences in soil particles sizes, and the influence soil has on core aspects of their lives.