



SOIL AND PLANT SCIENCE DIVISION

Technical Soil Services

Southwest Soil Survey Region

Tucson, Arizona, Major Land Resource Area (MLRA) Soil Survey Office (SSO)

Staff Participate in Willcox STEAMFEST

Purpose

The Tucson, Arizona, MLRA SSO staff participated in the Willcox STEAMFEST event to educate the community of Willcox, Arizona, on the mission of the Natural Resources Conservation Service (NRCS) and the importance of soil conservation.

Background

The City of Willcox, in collaboration with the Arizona Science Center, hosts STEAMFEST, an event that brings together organizations from the fields of science, technology, engineering, agriculture, and math to promote community engagement and interest. On August 24, 2024, the Tucson SSO and Arizona NRCS staff ran two booths for STEAMFEST, which was held at the Willcox Community Center. The booths consisted of an inflatable soil tunnel covered in soil facts and a separate rain simulator demonstration (figs. 1 and 2).

The event is an opportunity for outreach in an agricultural community, and the participation of the Tucson SSO allowed staff to advertise their expertise and capabilities in helping people help the land. Numerous public and private organizations hosted exhibitions, including the Willcox Fire Department, the University of Arizona Cooperative Extension, and the National Park Service.

Michael Piotrowski, ecological site specialist with the Tucson SSO, used a rain simulator to demonstrate how different soil covers and types affect runoff and infiltration after intense rainfall events. Chase Skaarer, Cari Lilly, and Jerzi Hood of the Arizona NRCS, helped Piotrowski run the simulator and answer questions from the community. Rob Wilson, resource soil scientist with the Arizona NRCS ran the inflatable soil tunnel booth and provided handouts to advertise the NRCS.

Key Outcomes

The Willcox community learned about the importance of soil conservation, the risks of soil erosion, and the benefits and ecological functions that healthy soil provides. NRCS staff interacted with members of the community, promoted the mission of the NRCS, and fostered positive relationships with the city and other organizations present. Staff answered questions about soil mapping and conservation, which helped increase knowledge and understanding of soil science in and around Willcox. The NRCS was well received by the organizers and was invited to return for future STEAMFESTs.



Figure 1.—Chase Skaarer standing under the inflatable soil tunnel.



Figure 2.—Michael Piotrowski (right) and Chase Skaarer (left) explain to community members how the rain simulator works.