

Natural Resources Conservation Service

# Soil and Plant Science Division

Southern Great Plains Region 9



## Region 9 Office and Texas State NRCS Office

### The START NOW Program Multi-Institutional Team Takes 1<sup>st</sup> Place in Team-Judged Pit

#### Purpose and Background

Dr. Kris Brye, Professor of Applied Soil Physics and Pedology at the University of Arkansas's Crop, Soil and Environmental Science Department, hosted this year's collegiate soil judging contest for the Southern Region. The contest was held October 10, 2019, and competition was fierce as many of the contestants had spent years preparing for the annual event. If new to their college's soils team, most of the students present had spent the entire semester taking soils classes and attending practice. Oklahoma State, Tarleton State University, Texas Tech University, Texas A&M University, and Texas A&M University-Kingsville, all sent teams to represent their schools.

Also present were a group of students that formed the Multi-Institutional team. This unique team was comprised of individuals chosen to be part of the START NOW program, a collaborative effort between the USDA and the National Institute of Food and Agriculture. This initiative partnered with multiple universities to offer agricultural opportunities and educational experiences to traditionally underserved students. One of the ways utilized to provide such exposure was partnering students with USDA employees in the field.

Many of the students selected for these endeavors are intellectually gifted and from disadvantaged communities. Their chosen fields of focus are typically other than agriculture or environmental studies, and they are unaware of USDA and its employment prospects. Oftentimes, they are among the first of their families to attend college. Broadening these individuals' experiences with various opportunities exposes them to life outside what they are used to, and opens up new possibilities for their future, as well as increases their chances of sharing unique skill sets with a new career field.



Ricardo Torres, Joshua Holgin, Karla Lopez, and Emily Morgan celebrate their award for First Place Team Pit.



Such was the case with the group of Multi-Institutional students selected for this year's soils team. Being mostly engineering students, they had never heard of soils judging, nor the possibility of soils or agriculturally-related USDA employment. "I had no idea soils were so complex," exclaimed one while studying a textural triangle. "This is such an interesting field of study, and if I had known it existed when I began college, I may have chosen it!"

Together with their sponsor school, Texas A&M University–Kingsville, the Multi-Institutional students spent the week before the contest under the tutelage of Dr. Greta Schuster, Department Chair and Professor of Integrated Pest Management and Plant Pathology at Texas A&M University–Kingsville; Dr. Ammar Bhandari, Professor of Soil Science at Texas A&M University–Kingsville; Scott Cardenas, graduate student at Texas A&M University–Kingsville and former soils judging alum; NRCS Texas soil scientist Carlos Villarreal and NRCS Soil and Plant Science Division (SPSD) soil scientist Sara Russell. The coaching group took the students to various practice pits that had been set up by Dr. Brye for the competing schools. None of the Multi-Institutional team had ever seen soils pits, nor had they been exposed to the elements of soil science. Texturing, coloring, assigning structure, and even designating master horizons and depths were completely new. Undaunted, the students asked questions and were eager to gain hands-on experience. They poured over classification rules and tirelessly challenged themselves to catch up to their counterparts from other schools who had studied soils for years.

## Key Outcomes

Their due diligence paid off when Ricardo Torres, University of Puerto Rico-Mayaguez; Emily Morgan, Florida International University; Joshua Holgin, University of Texas at El Paso; and Karla Lopez, University of Texas at El Paso, got their chance to work as a team. During the national qualifying portion of the contest, everyone participated individually, with scores added up to total each team's rank. The Multi-Institutional team placed solidly in the middle of the pack, a feat surprising given their previous lack of soils experience. Where they really stood apart from the rest was during the team portion of the contest, where each team works together on a single soils pit. It was this teamwork that really brought out the best in them all, and, despite a furious downpour that was unleashed only during the Multi-Institutional group's timeslot, they managed to work together and win first place in the team contest.



**Multi-Institutional team intent on learning about the soils – for the Win!**

NRCS soil scientists Carlos Villarreal and Sara Russell agreed, that a great opportunity and unique experience spending a week with the students and helping them prepare for the contest. Even more rewarding was the knowledge that the Multi-Institutional team had actively enjoyed learning about soils. These results make initiatives like START NOW so appealing and successful. Inspiring the future of soils is a passion that NRCS soil scientists are happy to share.