

SOIL AND PLANT SCIENCE DIVISION

Technical Soil Services

Southeast Region



Mayaguez Major Land Resource Area Soil Survey Office

Technical Soils Assistance to Natural Resource Career Development Program Participants

Purpose

During the week of March 12 to 15, 2023, students from Texas A&M University-Kingsville (TAMUK) and University of Puerto Rico Mayaguez Campus (UPRM) participated in the Natural Resource Career Development Program. On March 12, 2023, the Mayaguez Major Land Resource Area (MLRA) Soil Survey Office (SSO) Staff and participants in a Caribbean Area Resource Soil Scientist Detail provided lectures and demonstrations about soil survey tools and equipment used to evaluate and document soil in the field.



Abdiel Santana, Soil Scientist, and Angel Domenech, Resource Soil Scientist, showed and explained the use of soil survey tools.

Background Information

The objective of the program is to promote NRCS as an employer of choice for diverse populations. This program will help foster and cultivate undergraduate and graduate students as future leaders interested in agricultural careers in public service. Educational workshops and activities will offer diverse students developmental techniques and tools in reasoning ability, self-confidence, goal setting, leadership development, and agricultural knowledge in conservation management and technology trends. Specific workshops will assist students in understanding the Pathways program, learning how to apply through USAJOBS, and building a competitive application to better compete for NRCS internships and permanent jobs. The ultimate objective is to employ TAMUK students as Pathways interns and, eventually, convert the internships into entry-level permanent positions with NRCS. This will be accomplished through visits to NRCS field offices, agricultural production and natural resources systems in Puerto Rico and Texas.

Key Outcomes

The TAMUK and UPRM students visited farms and agricultural experiment stations across Puerto Rico. In addition, students listened to lectures about the soils present in the Lajas Experiment Station, their genesis, and geomorphology. The group observed the characteristic of Faternidad and Mariana soils in an open pit. The students learned soil characteristics including how soil horizons are divided, soil texture, redox features, slicken sides, and other features observed and documented by soil scientists during soil pedon descriptions.

As part of the Experiment Station tour, Dr. David Sotomayor showed students an experiment to assess cover crop germination at different planting distances to assess how germination is affected.

Finally, the group moved to the Cartagena Lagoon to see the characteristics, vegetation, and hydric soils of a freshwater wetland system. While there, they observed migratory birds present in the wetland, and they were told about the ecological importance of wetlands and their benefits.



UPRM student using soil auger to take soil sample.



Students listening to a lecture on cover crop germination.