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The Coastal Plainer

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Message from the MO–Leader's Desk

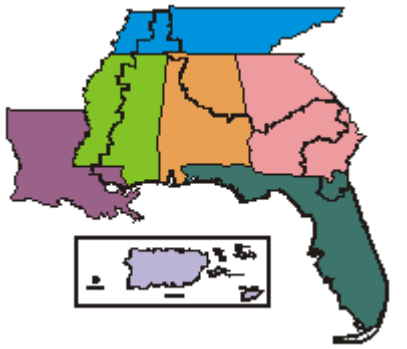
By Charles Love, MO–15 Team Leader

Greetings everyone!

We are starting the 2004 calendar year with many exciting soil survey activities. Our innovative approaches to the soil survey program continue to be challenging as well as inspiring to all of us as we assist in the NRCS resource management efforts across the region.

I am pleased to announce the establishment of another Super MLRA Soil Survey Project Office in the MO–15 region. The new super project office is co-located with the Geological Survey of Alabama on the University of Alabama campus in Tuscaloosa, Alabama. The office has been established in west-central Alabama for the purposes of completing the once-over and updating and maintaining soil surveys within portions of Major Land Resource Areas 129—Sand Mountain, 133A—Southern Coastal Plain, 135—Alabama Blackland Prairies, and 136—Southern Piedmont (about 9 million acres within the soil survey area). There will be three soil scientists and one GIS/Cartographer at this location. Also, we envision working with the Geological Survey of Alabama to jointly develop new technology and skills for data collection and for management of diverse natural resources within that geographic area. Special recognition goes to Mr. Bob Jones (Alabama) and Dr. Nick Tew, director of Geological Survey Alabama, for their contributions in facilitating this cooperative effort.

MLRA Soil Survey Region #15



Oh Yes! We are making good strides in the signing of the MLRA Region 15 Memorandum of Understanding (MOU) for implementation by the Board of Directors. The Region 15 MOU serves as a blanket document for conducting business, such as the coordinating and continuing modernization efforts for the 250 soil surveys in the 13 Major Land Resource Areas within this business area. Also, the MOU will facilitate the establishment of super project offices for conducting soil survey activities within the region. To date, the MO staff has received signatures from 65 percent of the board members. We are asking the board members to provide all signatures for approval as soon as possible. I would like to thank the State Soil Scientists, Soil Data Quality Specialists, and cooperators who provided a thorough review of the MLRA Region 15 MOU. Your review will strengthen our business activities.

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In other news, we have made great progress logistically locating and installing the electronic water-data loggers for the MO–15 regional water table study on key soils and landforms. I want to personally thank the State Soil Scientists, cooperators, landowners, local soil scientists, and district conservationists for their help in identifying key soils and landforms for this special study. Also, special thanks go to George Martin, SDQS, for developing and deploying a comprehensive guidance document for installing these electronic devises. Great job everyone!

NRCS–Alabama, NRCS–Nebraska, and the University of Nebraska have developed a cooperative effort to accelerate the SSURGO initiative in Alabama. The Nebraska map compilation unit is providing Alabama with map compilation for eight counties. The Nebraska map compilation unit develops the soil polygon and soil symbol and special feature overlays to meet national SSURGO standards. Similar arrangements have been developed between NRCS–Mississippi, NRCS–Nebraska, and University of Nebraska as well. These cooperative efforts are good examples of how states and MOs work together to improve the National Cooperative Soil Survey. We are also appreciative of the support from those State Conservationists, State Soil Scientists, and cooperators who are helping us to meet the national SSURGO initiative.

In other news, I would like to encourage everyone to start marketing the NRCS Soil Data Warehouse and Soil Data Mart to cooperators and to all levels of NRCS staff in the MO–15 region. The Soil Data Warehouse and Data Mart provide a sole-source distribution point for official soil survey data used in Field Office Technical Guides, the Customer Service Toolkit, and other applications. The Soil Data Warehouse and Data Mart provide a web-based interface that allows users to identify specific soil survey areas, run reports, and download SSURGO data files.

Please mark your calendar for the following events:

- MO–14 and –15 Soil Survey Workshop to be held March 15–18, 2004, at Sumter, South Carolina;
- South Cooperative Soil Survey Planning Conference to be held June 7–11, 2004, at Biloxi, Mississippi; and
- Joint MO–13, –14, –15, –16, and –18 Board of Directors meeting to be held June 11, 2004, at Biloxi, Mississippi.

Again, thank you! ■

Collaborative work with NRCS and the University of Puerto Rico

By Carmen Santiago, Staff Soil Scientist, Caribbean Area

The Soils Division, NRCS Caribbean Area, and the Agronomy and Soils Department of the University of Puerto Rico, Mayaguez Campus (UPR), are working jointly in the first year of a two-year agreement on "Surface runoff studies using simulated rainfall in Puerto Rico." Two professors from UPR, Dr. David Sotomayor and Dr. Gustavo Martinez, are leading the project.

Objectives of the project include locating high-agricultural-use soils accepting manure, collecting characterization samples on these benchmark soils, laying out surface runoff plots and water collectors, establishing rainfall simulators, and determining the chemistry of water for the rainfall simulators. Information from this project will assist in the development of Puerto Rico's P index and in efforts to develop a national protocol and a national assessment tool.

Three farms located in the Major Land Resource Area 270 (Humid Mountain and Valleys) were selected as sites for the

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establishment of projects. The soils at two of the farms were identified as Humatas series, and the soil at the third was in the Soller series. The Humatas series was sampled at the Corozal Agricultural Experiment Station, and the Soller series was sampled at a dairy farm in San Sebastian. Both sites are devoted to pastureland.

During the week of January 26th to 30th, 2004, soil characterization sampling was collected for both benchmark soils, the Humatas and Soller Series. Dr. Dewayne Mays, director of the National Soil Survey Laboratory, and Dr. Moustafa Elrashidi, soil chemist at the National Soil Survey Laboratory, participated in the sampling. Two sampling methods were used, the horizon and the increment. These two sites will provide a large contrast to other sites sampled in the United States in similar projects.

Also, on January 29, Dr. Mays and Dr. Elrashidi, gave presentations at the University of Puerto Rico, Mayaguez Campus. The presentations were "Soils Science and You" and "A Technique for Estimating P in Runoff Waters," respectively. Professors, research investigators, and students attended both presentations. As a result of these presentations, Dr. Mays and Dr. Elrashidi were asked to assist the UPR Agronomy and Soils Department with a project on the Rio Grande de Arecibo Watershed in support of a graduate study. ■

Update on MO–15 Regional Soil Water Study

By George Martin, Soil Data Quality Specialist

As reported in the Spring 2003 edition of the Coastal Plainer, states within MO–15 are moving forward with implementation of a regional soil water study. Our office was able to purchase 150 electronic water-level data loggers through a grant from the Soil Survey Division and additional monies from other sources. The data loggers (WL-15 water-level loggers) were received in September 2003 and distributed to states within the region for installation according to standardized procedures developed for the study. Instrumentation of sites began in late fall and should be completed in most states by early spring in 2004.

The objective of this study is to collect soil water data for representative soils and landform positions throughout MO–15 in a comprehensive and uniform manner. Collected data will be used to assist in populating the NASIS database and to refine interpretations affected by soil water data. Initially, the study will monitor soil water levels in selected soils for a period of 3 years. In the initial phase, approximately 85 pedons

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Figure 1.—Ralph Thornton, project leader, Wayne County, MS; George Martin, SDQS, MO–15; and Ken Murphy, soil scientist, Jackson, MS, check to ensure that a recently installed water-level logger is functioning properly.

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representing 30 soil series will be instrumented in Alabama, Florida, Georgia, Mississippi, Tennessee, and the Caribbean Area. Most of the selected soil series will be replicated three times and sited in different counties and states in an effort to capture ranges in rainfall and soil properties. The series selected for study in this initial phase generally have a perched water table above a limiting layer. They include soils in the Plinthic, Fragic, Arenic, Grossarenic, Vertic, Oxyaquic, and Typic subgroups. Selected soils occur in two or more states, except for the hyperthermic soils in Florida and soils in the Caribbean Area. The data loggers were programmed to record water levels at 6-hour intervals. Data will be downloaded twice each year, in January and June.

This study is a cooperative effort involving the MO, each state served by the MO, land-grant universities, and state agencies. A work plan and standardized procedures were developed by the MO with input from each state and interested university. The MO arranged for purchase of the data loggers and is providing coordination and support for selection of soils and sites and for analysis of data. Each state is responsible for selecting sites, instrumenting the sites, and collecting data throughout the study period. Cooperating universities assisted in developing protocols for site selection, installation, and data collection and will assist in review and analysis of data.

If you are interested in details about this study, contact me via e-mail at george.martin@al.usda.gov or by phone at (334) 887-4562. ■

The National ASA Meeting

By Doug Clendenon, Soil Scientist, North Alabama Regional Soil Survey Office

The National ASA meeting was held in early November in Denver, Colorado. The meeting allowed opportunities for reviewing scientific posters, holding discussions with authors, attending scientific presentations, and attending meetings of interest.

Many of the posters related to soil science dealt with soil carbon, hydric soils, and wetlands. There were some good posters on soil quality, web-based soil survey, and soil morphology. I was impressed with the posters by NRCS soil scientists. I think more NRCS field soil scientists should present posters for the sake of sharing our understanding with the academic world. I can see we are important to the field of soil science, especially in light of the ever-decreasing curricula for soil science at universities. Academia presented some of the more interesting posters. There were some posters of particular interest to me regarding fragipan slaking and cementation (West Tennessee loess soils), soil morphology and seasonal water tables, and topsoil formation rates in disturbed soils. Many of the academic posters were over my head. I visited with the authors and found some were very happy to get it down to my level.

Eddie Davis and I attended sessions on Monday regarding soil survey, landscapes, remote sensing, and hydropedology. Hydropedology is a new term to me. Apparently it denotes the combined study of water (hydrology) and soil (pedology); in particular, it refers to flow patterns in landscapes, water table fluctuations, internal drainage, saturation and reduction, vadose zones, yadda, yadda. All NRCS field soil scientists are practicing hydropedologists and have been for years. As previously mentioned, soil water and its effects on a number of environmental issues are of great interest to many. Our installation of water table sensors in the Southeast supports this.

All NRCS field soil scientists are practicing hydropedologists and have been for years.

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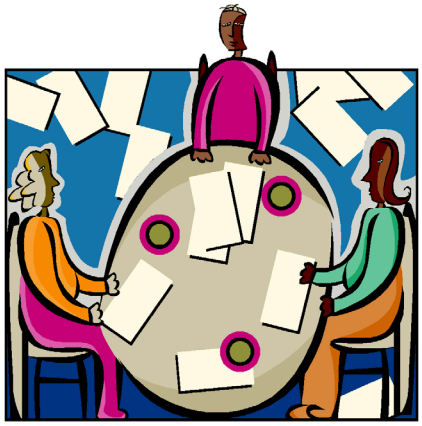
The session we attended on Tuesday dealt with soil genesis and classification. Presenters discussed Andic properties in non-volcanic soils, harmonizing soil classification terminology between Soil Taxonomy and the World Reference Base classification systems, different types of soil structure caused by permafrost, silica absorption on bonding in fragipans, and water movement out of wastewater disposal trenches in some clayey Piedmont soils.

I attended the World Soil Tour 2006 Committee Meeting. This committee is chaired by Dr. Rabenhorst, University of Maryland. The committee is planning over a dozen soil tours across the U.S. (including Alaska and Hawaii), Mexico, and Cuba to be held in July 2006. Larry West and Warren Lynn are heading up the Southeast U.S. tour, which will encompass parts of Georgia and Alabama. The meeting included discussion of write-ups for the tour highlights; bus considerations; quarantines; use of the World Reference Base soil classification system; and sampling.

I encountered a number of ideas that interested me while attending the various sessions and meeting. Some of these ideas include the role of magnesium in the brittleness of West Tennessee fragipans; the use of titanium and zirconium to fix a lower boundary on recent overwash; the reformation of topsoil at fast rates on certain disturbed soils; the use of the World Reference Base soil classification system by other countries; the effect of adding gravel to wastewater disposal trenches in a clayey piedmont Typic Kanhapludult; and the use of soil redox concentrations (instead of depletions) as an indicator to estimate the high range (top) of a fluctuating water table. ■



Roundtable on Meeting the Needs of the Professional Soil Scientist

By Eddie E. Davis Jr., Soil Scientist, North Alabama Regional Soil Survey Office

A roundtable session on "Meeting the Needs of the Professional Soil Scientist" was held in Denver at the National ASA meeting. Presiding over the event were Jim Culver of the US Consortium of Soil Science Associations and Michael J. Singer of the University of California-Davis and past president of the Soil Science Society. There was a panel discussion that divided the meeting into various topics, including: "The Needs and Opportunities for the Professional Soil Scientist," "Enhancing Recognition of Soil Science as a Professional Discipline," "Role of Professional Soil Scientists in the Smithsonian Soils Exhibit," "The 18th World Congress of Soil Science," and a "Roundtable Discussion and Social Hour." Regardless of the variety of topics discussed at the meeting, the primary goal was to discuss the diversity of the profession of soil scientist. Whether a soil scientist is involved in academia, research, fieldwork, or private consulting, we are all providing a service to the people in one way or another and should work together at uniting soil science organizations.

The Needs and Opportunities for the Professional Soil Scientist

Margie Faber of the Society of Soil Scientists of Southern New England and USDA–NRCS, Windsor, Connecticut, presented "The Needs and Opportunities for the Professional Soil Scientist." As an introduction to her presentation, she stated that she had sent out a

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questionnaire or survey by e-mail to many of the State Soil Scientists as well as to many soil scientists in academia, research, and even in the field. The survey mainly focused on the different certifications that are available to soil scientists and asked if the respondent had taken advantage of the opportunity to get some type of certification that would enhance their credibility within their profession. Although she didn't give an estimate of how many people responded, she did indicate that out of the individuals she contacted, more than half of the soil scientists were certified with ARCPAC and 25 percent had other certifications. Other certification meaning certification provided by individual states or unspecified certification. Interestingly, she also found that out of all the soil scientists, regardless of rather they were involved in administration, academia, research, or the field, there were quite a number that are members of some type of organization that primarily caters toward soil science at the state level but not many who were a part of a national membership.

Enhancing Recognition of Soil Science as a Professional Discipline

Bob Kendal, a member of the National Society of Consulting Soil Scientists, discussed "Enhancing Recognition of Soil Science as a Professional Discipline." Mr. Kendal is a private soil consultant in the state of Georgia; he is President-elect of the Board of Directors for the National Society of Consulting Soil Scientists; and he serves as Chair of the Legislative Affairs Committee of the Soil Science Society of Georgia.

Two years ago in Georgia, a law was passed that allowed engineers to perform duties similar to those of a soil scientist at the consultant level. Because this law was a hindrance to the consulting soil scientists across Georgia, private soil scientist gathered together and formed a soil science based organization to voice their opinions and defend their profession. Although the organization had good intentions, it just wasn't very effective in the legislative process; therefore, the organization hired a lobbyist to represent it and the soil science profession. The lobbyist served as the organization's political input in the legislative process. Mr. Kendall urged everyone to get involved and become aware of various issues that could very well affect them at the political level. Furthermore, he recommended that soil scientists should have some type of required license and that soil science should be recognized as an individual profession. Mr. Kendall spoke highly about how the soil scientists in Georgia came together, and he insisted that all soil scientists should be a part of some type of soil science organization, which would in turn bring more publicity to our profession as a whole.

Role of Professional Soil Scientist in the Smithsonian Soils Exhibit

Patrick Drohavn of the University of Nevada-Las Vegas and John Kimble, USDA–NRCS, Lincoln, Nebraska, presented the "Role of Professional Soil Scientists in the Smithsonian Soils Exhibit." They began with the statement, "Water is to land what blood is to man. If we don't have soil, then we don't have clean water to drink." The Soil Science Society of America (SSSA) is working with the Smithsonian Institution to plan a soils exhibit as part of the Global Links Gallery at the National Museum of National History in Washington, DC. The exhibit will include a display of state soil monoliths and an educational, interactive section to help the museum's annual 6 to 9 million visitors understand how soil is linked to the health of humanity and the environment as a whole. The speakers stated that 5

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million dollars is going towards getting the Smithsonian's soil exhibit functioning properly. The exhibit needs to be attractive and appealing to the everyday person if it is going to truly educate and promote the importance of soil science. After doing further research, I found that the exhibit will be constructed next to the exit of the IMAX theatre. This is a great location. On an average day, approximately 4,500 people will walk by this area. During peak holidays, there is the potential of having 80,000 individuals approach the exhibit. The exhibit serves as a tremendous educational opportunity for providing information about soil science. With the construction and completion of this project, soil science as a field of study should very well receive the recognition it deserves.

The 18th World Congress of Soil Science

Lynn Summers, President-elect of the American Society of Agronomy, briefly discussed "The 18th World Congress of Soil Science." The 18th World Congress of Soil Science is an international soil science meeting and will be held July 9 to 15, 2006, in Philadelphia, Pennsylvania. The theme of the conference is "Frontiers of Soil Science: Technology and the Information Age." Projecting from the participation of past years, the meeting is expected to have approximately 2,000 people registered. For more information visit http://www.18wcss.org/.

The Roundtable Discussion and Social Hour

The "Roundtable Discussion and Social Hour" was the final portion of the meeting before adjourning. There were many roundtables set up to address the various topics that were covered by the panelists. Each panel member coordinated a discussion by addressing the particular topic that was placed on the table. Additional roundtables were also provided for those individuals that wished to share information and obtain input from the discussion. This time was basically informal and served as an opportunity to mingle and network with individuals in closely related fields of expertise. ■

NRCS Welcomes Cortez Brundage

By C. Brundage and S. Anderson

Cortez Brundage has been selected to serve as the NASIS data transcriber on the soils staff at the Alabama State Office. He will be assisting our project leaders and resource soil scientists by entering, editing, and validating soils data in NASIS.

Cortez is originally from Auburn, Alabama, and recently left the military after 9 years of service in the Army. He served on active duty from November 1993 to January 2003 as an air traffic controller and administrative specialist. He has won several awards for excellence for excelling and improving every office he has worked in.

Before joining the NRCS, Cortez was an employment interviewer for the Alabama State Employment Office. Previous to that, he was employed by the City of Auburn as a utility meter reader. He brings to us over 9 years of experience in administrative supervision and training.

Cortez is also attending Southern Union Community College and Auburn University to obtain a Bachelor of Science in Business (finance and human resource management). Cortez and his wife, Patricia, have three children: Brittany, Brandon, and Bryanna.

The Alabam soils staff is delighted to welcome Cortez to our team. ■

Editor's Note

Issues of this newsletter are available on the MO–15 homepage (http://www.mo15.nrcs.usda.gov/). Click on "News" and then on "The Coastal Plainer."

The Coastal Plainer has been produced quarterly for over eight years. During this time, it has been a valuable tool for introducing people to the staff and concepts of the MLRA Office. Now that the MO is more familiar, we will be switching to biannual distribution. We thank all of you who have helped with the Coastal Plainer in the past and hope you will continue to support us in the future.

You are invited to submit stories for future issues to Aaron Achen, editor, MO–15, Auburn, Alabama.
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