

Office of the Chief
Weekly Report
Soil Science and Resource Assessment
Soil Science Division
January 7, 2015

DEADLINE REMINDERS

FY2015 USDA Information Security Awareness Training – **Due: January 31, 2015** (Required for All USDA Employees, Contractors, Partners, and Volunteers). Description: The USDA Information Security Awareness Course introduces you to the basic concepts for computer security at USDA. Topics include: The Importance of Information Security, Threats and Vulnerabilities, Viruses and Malicious Code, and Roles and Responsibilities. [National Bulletin 360-15-7](#).

FY2015 Active Shooter: What Can You Do Training – **Due: January 31, 2015** (Required for all employees, contractors, partners, and volunteers with an AgLearn account). It's time again to complete the mandatory active shooter training. This training is required by the NRCS and is an essential part of keeping our workforce safe and secure. The FY 2015 active shooter course has been assigned to all USDA employees, contractors, partners, and volunteers with an existing AgLearn account. [National Bulletin 360-15-16](#).

WEBINARS AND TRAININGS

1/13/2015 – 2 to 3:30 pm EST

Joint S&T and SSRA Webinar—The Science behind Healthy Soil: NRCS' Soil Health Literature Review Project. Mike Kucera, Agronomist, NSSC.

1/15/2015 – 2 to 3 pm EST

International Programs Division Webinar—[Haiti Soil Survey Pilot Project](#). Thomas Reinsch, National Leader for World Soil Resources and Charles Kome, Soil Scientist, NRCS.

1/16/2015 – 2 to 3 pm EST

NSSC Webinar—Soil Carbon Stocks in Cropping and Pasture Systems of Victoria, Australia. Ivanah Oliver, Visiting Research Soil Scientist, Victoria, Australia.

1/20/2015 – 2 to 3:30 pm EST

NSSC Webinar—Soil Health Nutrient Tool, “The Science Behind This Tool” and Soil Health Nutrient Tool Project and PMC Cover Crop Project. Dr. Rick Haney, Soil Scientist, Grassland Soil and Water Research Laboratory, and David Lamm, National Soil Health & Sustainability Team Leader, National Soil Health & Sustainability Team.

INTERNATIONAL YEAR OF SOILS

January Theme – Soils Sustain Life

<https://www.soils.org/iys/12-month-resources/january>

The Life Under Our Feet

Without soils, life on earth as we know it would not exist. The condition of soil ecosystems affects global warming, carbon sequestration, the quantity and quality of fresh water, the productivity and nutritional value of plants growing in the soil, the impacts of invasive organisms, the health of bays and estuaries, and the availability of new medicines for human health. (*From the 2015 NRCS/SSSA IYS Planner*).

Please visit the [NRCS International Year of Soils](#) website.

Sign up for [e-mail updates](#) on the International Year of Soils.

International Year of Soils Celebration in DC!

Yesterday began the year-long celebration of the International Year of Soils with a kickoff event held on the Whitten Patio in Washington, DC. The event, attended by USDA employees and partners, was a great success! Thanks to everyone from SSRA/SSD who played a part in preparing, coordinating, setting up/taking down, and helping out. Here are some of the results from the event, including photos, audio clips, the USDA press release, and the Chief's blog.

Below is the link to Chief Weller's USDA blog, published today, which includes some nice photos from yesterday's event:

<http://blogs.usda.gov/2015/01/07/event-at-usda-ushers-in-2015-as-the-international-year-of-soils/>

Here are downloadable photos from yesterday, on the USDA flickr site....

<https://www.flickr.com/photos/usdagov/sets/72157650163972235/>

Here's the USDA news release about the event....

<http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/newsroom/releases/?cid=STELPRDB1266976>

And, don't forget to view the just released January IYS video, highlighting this month's theme, *Soils Sustain Life*

https://www.youtube.com/watch?v=8NatYKP6hOU&list=PL4J8PxoprGZ3gPDXRfa_DNBYXoF-ruG2&index=2

Audio Clips from the Kickoff Event

INTERNATIONAL YEAR OF SOILS UNDERWAY

The Agriculture Secretary and other USDA officials are joining this year in worldwide promotion of the importance of soil and the need to take care of it. (Rod Bain. Secretary Tom Vilsack. Natural Resources Conservation Service Chief Jason Weller). 00:00:59.

THE IMPORTANCE OF SOIL HEALTH

What would it mean to us if soil and its importance are taken for granted? (Rod Bain and US Forest Service Chief Tom Tidwell). 00:00:59.

ACTUALITY: VILSACK ON USDA CONTRIBUTIONS TO SOIL HEALTH

Agriculture Secretary Tom Vilsack notes some of the many ways USDA is using its resources to improve soil health. 00:00:47.

SOIL HEALTH MOVEMENT COULD OPEN NEW OPPORTUNITIES

One agricultural retailer says if farmers adopt soil health practices being pushed by the USDA and others, it would open new sales opportunities for makers of fertilizers and other inputs. (Gary Crawford and Gary Farrell). 00:01:00.

UPDATES FROM THE NATIONAL SOIL SURVEY CENTER

Historical International Soil Taxonomy Committee Work Preserved Online

The history of incremental decisions made by dozens of international partners collaborating to improve Soil Taxonomy are now posted online for use and reference. The purpose of these international committees was to solicit input from top pedologists worldwide to review, evaluate, improve, or establish new criteria in Soil Taxonomy and enable systematic classification of soils across the globe. As a result, any soil found in the landscape can be classified using Soil Taxonomy. These international committees, ICOM's, started in 1978 with the formation of ICOMLAC, the International Committee on Low Activity Clay soils. Current International participation in Soil Taxonomy issues continues today with ICOMTAX, established to facilitate continued improvement of Soil Taxonomy and broaden interest and application globally through active participation from the international community. Links to the various committees and more are available on the NSSC Soil Classification page at:

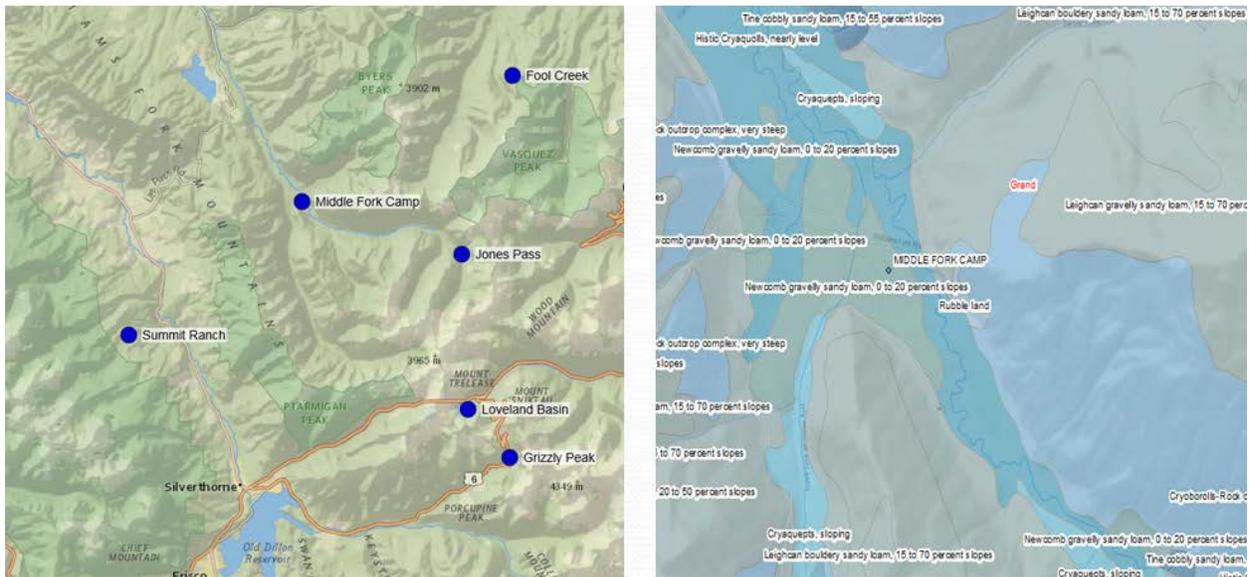
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/survey/class/>.

UPDATES FROM STATES

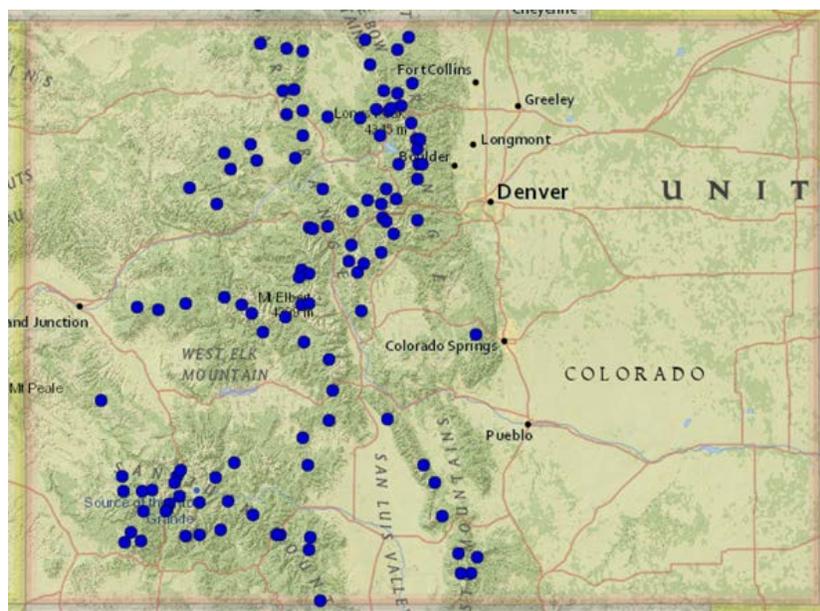
Colorado — SNOTEL Soil Moisture Sensor Procedures

William Shoup, State Soil Scientist, Denver

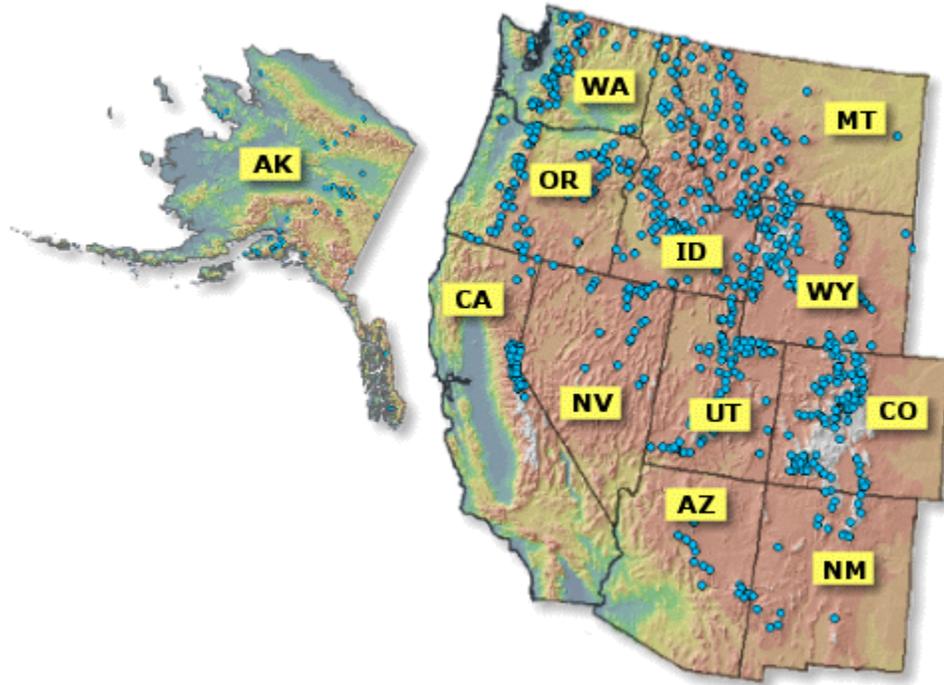
On December 3, 2014 William Shoup, State Soil Scientist of Colorado, presented to the SnowPAC (Snow Program Advisory Committee) group at The National Water and Climate Center in Portland, Oregon. The topic was site selection for soil moisture sensor installation in Colorado's SNOTEL (snow telemetry) network, in high alpine environments.



Forty-two SNOTEL sites in Colorado currently have soil moisture sensors installed. The network needs these sensors at each of its one hundred and fourteen stations.



The idea is to have all 12 Western States with SNOTEL sites follow a standard procedure for selecting and installing the sensors. SNOTEL data is the primary source for reporting western snowpack conditions and issuing water supply forecasts.



The soil moisture sensor data are becoming increasingly valuable for runoff equations, and water supply estimates in these States. This year, Colorado plans to sample and characterize ten SNOTEL sites in cooperation with the Kellogg Soil Survey Lab in Lincoln, NE. This characterization data will provide scientific data that will be used to drive forecasting equations and reduce inconsistencies created by using generic equations to calculate soil moisture content.

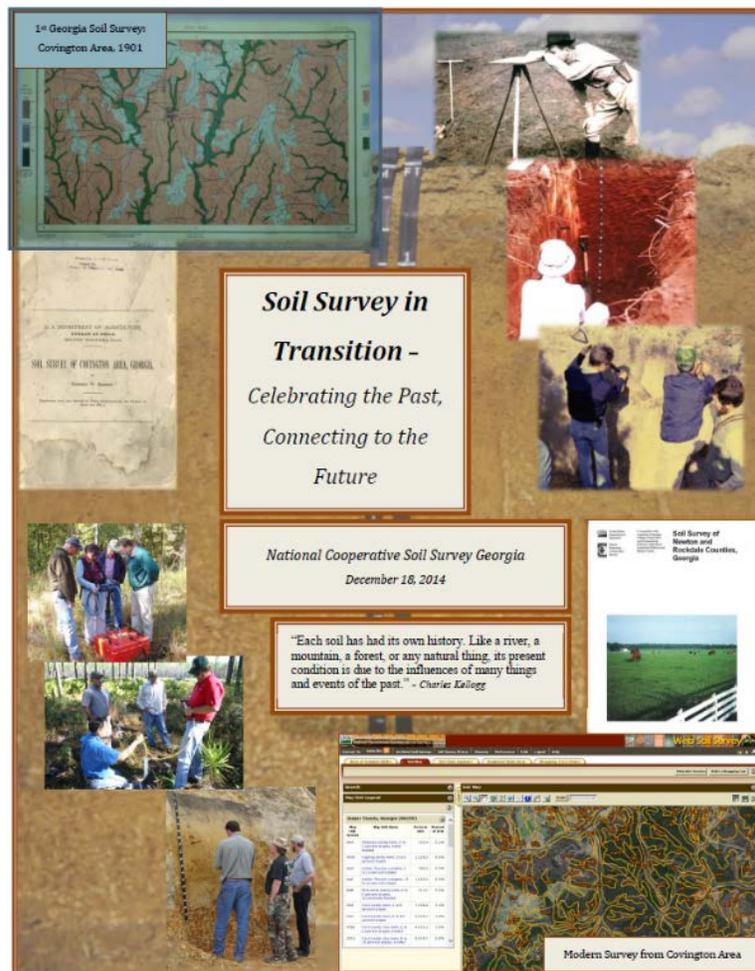


SnowPAC group Photo (2014).

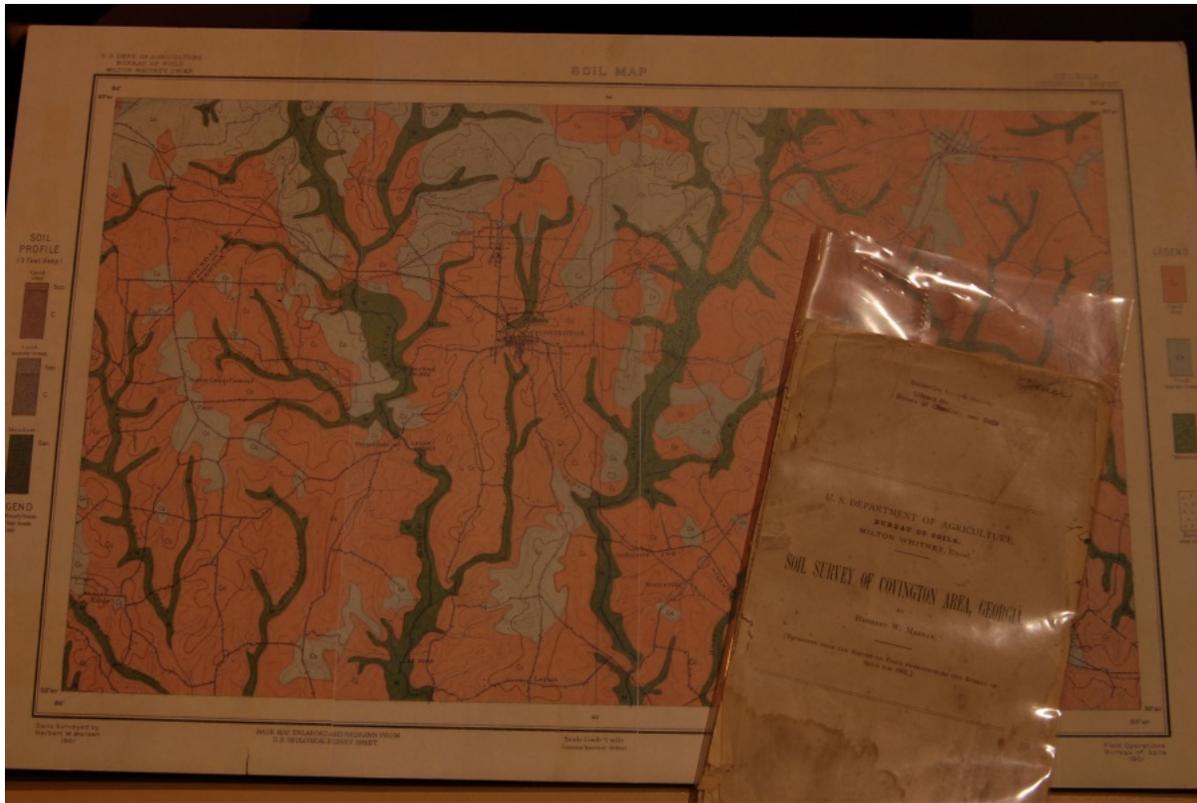
Georgia — National Cooperative Soil Survey Meeting

Dee Pederson, MLRA Ecological Site Specialist, Athens

A meeting of the National Cooperative Soil Survey of Georgia was held December 18, 2014. The last initial soil survey of Georgia was certified in January 2014 and as such, the theme of the meeting was **Soil Survey in Transition – Celebrating the Past, Connecting to the Future**. Almost 30 participants attended the meeting which included MLRA SSO staff with responsibilities in Georgia; regional staff from SSR-3, SSR-6, and SSR-7; ecological site inventory staff; state soil scientists from adjoining states; state technical staff; university and other agency cooperators; retired SCS/NRCS soil scientists; and state leadership. Activities included a historical synopsis of the Soil Survey program in Georgia and recognized strides made in technology over time. Presentations by regional directors, MLRA SSO leaders, ecological site staff, resource soil scientists, state soil scientists, cooperators, and Georgia’s state conservationist focused on recent and future activities. The day culminated with a special recognition of Steve Lawrence, Georgia State Soil Scientist, who will retire January 2 after a 38-year career with SCS/NRCS.



Cover of meeting booklet.



First published survey in Georgia (1901) – Covington Area.



Some of the participants at the Georgia NCSS meeting.



Recognizing Steve Lawrence (seated) retiring after a 38-year career with SCS/NRCS.

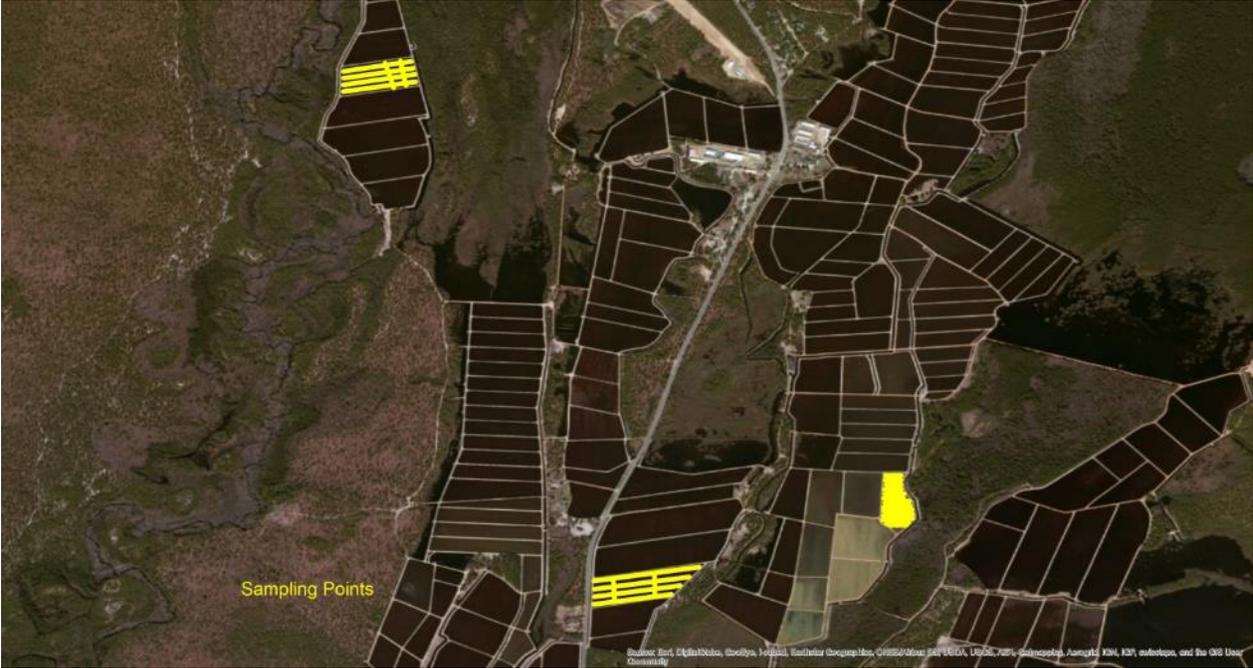
New Jersey — Determination of Seasonal High Water Table in Cranberry Bogs with GPR Technology

Edwin Muñiz, Assistant State Soil Scientist, Somerset

In the mid 1800's the industry of cranberry started in Ocean County, New Jersey by John Webb selling barrels of cranberry to ship merchants. Later this industry was diversified by Elizabeth Lee when, in the spirit of not wasting damaged berries, she started the business of selling "Bog Sweet Cranberry Sauce". Since then the cranberry industry is been important socio-economically for the Pineland region. The Pineland area in New Jersey formed in very sandy acidic soils and is the home of a diverse and unique ecological area and of course the Jersey Devil. According to the 2012 US Ag Census, New Jersey has approximately 13 percent of agricultural lands of which around 0.5 percent is in cranberry. Even with such a low percent of area dedicated to the crop, New Jersey ranks number three in the Nation in cranberry production.

In this effort to keep the Garden State in the frontier of quality crop production, Rutgers, The New Jersey State University, requested the assistant of NRCS Soil Scientists for a joint project of measuring depth to seasonal high water table with the use of GPR to potentially predict crop production and recommendations for precision agriculture. At the beginning of the project we collected transects utilizing different frequencies antennas to determinate suitability and quality of data collection. The final data collection was conducted in four cranberry bogs utilizing the 400 MHz and 900 MHz antennas where crop yield data was available. This method demonstrated to be time effective providing a vast amount of quality data utilized by the

university study. As a result the researchers were very impress with the effectiveness of the equipment and all the information available to them in a short time.



Cranberry bog sampling area.



Cranberry bog in Pineland area of New Jersey.



Testing the 200 MHz antenna in a cranberry bog.

New Mexico — Woodall Receives Trail Boss Award

Aaron Miller, MLRA Soil Survey Leader, Santa Fe

Scott Woodall, Rangeland Management Specialist with the NRCS Santa Fe Soil Survey Office, was presented with the Colorado Section, Society for Range Management's (SRM), Trail Boss award at the Section's fall meeting in Fort Collins, CO.

The Trail Boss Award is the highest award bestowed by Colorado SRM to a section member that has demonstrated significant contributions to the science and art of rangeland management. It is a lifetime achievement award meant to honor one's career in the ever persistent drive to improve conservation on Colorado rangelands.

An award is not given every year. A member must be nominated and submitted to the Colorado Section and approved by the Board of Directors. Scott has demonstrated excellence in rangeland management through twenty years of dedication to the soils, plants, animals, and people on both private and public rangelands in Colorado and New Mexico. His career includes time with the NRCS and the USFS, helping land managers apply conservation to the land. Currently he resides in Santa Fe, NM where he works with the MLRA Soil Survey staff to establish and write ecological site descriptions throughout central and eastern New Mexico.



Scott Woodall (left) receives Trail Boss Award from the Colorado Section of the Society for Range Management.

PERSONNEL ACTIONS

Retirements (effective Jan 3, 2015)

Charles Gordon, Regional Director, Rocky Mountain Soil Survey Region, Bozeman, MT

Travis Neely, Regional Director, East Central Glaciated Soil Survey Region, Indianapolis, IN

Cleveland Watts, Regional Director, Great Plains Soil Survey Region, Salina, KS

William Wehmueller, Senior Regional Soil Scientist, Great Plains Soil Survey Region, Salina, KS

Temporary Appointments (120 days, effective Jan 4, 2015)

Tonie Endres, Acting Regional Director, East Central Glaciated Soil Survey Region, Indianapolis, IN

Eva Muller, Acting Regional Director, Rocky Mountain Soil Survey Region, Bozeman, MT

John Warner, Acting Regional Director, Great Plains Soil Survey Region, Salina, KS