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VAPSS Newsletter

Virginia Association of Professional Soil Scientists

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Web Soil Survey

Web Soil Survey is now better than ever! Based on user comments, the improved and enhanced version has been developed to make the program more responsive to its growing customer base.

The site is a simple yet powerful way to access and analyze soils data. When viewers visit the web soil survey, they are asked to "Define" a geographic area of interest by selecting a state and county or just by highlighting an area or areas. Once a location has been defined, the viewer has the choice to print the map and related information, save it to their hard drive or download the data for use in a geographic information system (GIS).

Customized soil reports for the chosen area of interest can be created to fit the needs of the customer. As much or as little of a multitude of soil interpretation maps as well as soil reports can be added to create a customized soil report for their own tract of land by adding the maps or reports chosen to the Shopping Cart. When the client is ready to receive the data, the Shopping Cart tab can be clicked and the items for the report can be observed, and printed in PDF format or saved until later.

Other new features include using a topographic map as the base layer instead of the aerial photo. Session timeout has been increased from 20 to 40 minutes,

and will issue a warning when session timeout is imminent (within 5 minutes) and allow you to restart your session timeout. Map unit descriptions are also available as a floating window while observing the soils map. The Legend layer properties can now be edited by right clicking in the Legend tab. You can turn road labels on or off, change the transparency level on interpretive maps, and turn the area of interest hashmarks on and off. Archived Soil Surveys can also be viewed and downloaded in PDF format for some areas of Virginia.

The Web Soil Survey site can be found be at: <http://websoilsurvey.nrcs.usda.gov>.

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Special points of interest:

- *Plan ahead for the Fall Meeting to be held in Richmond in October*

SPRING TECHNICAL SESSION ON “HOW TO USE NRCS HYDRIC SOIL INDICATORS” story by Nan Gray

This Spring’s Hydric Soils Lesson taught by John Galbraith was very informative in the NEWLY recognized hydric soil indicators. The features have always been there, but depending on the agency involved, may or may not have been “allowed” as a hydric soil. The National Technical Committee for Hydric Soils (NTCHS) has been working on updating definitions and indicators of hydric soils since 1981. The NTCHS has had help from many agencies and sectors of people working with soils, plants and hydrology and its input to unify all the agencies in what is recognized as hydric will help us all. Currently the definition of a hydric soil is a soil that in its undrained condition is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part (10 cm).

The NTCHS Hydric Soil Indicators and its database (from Galbraith’s notes)

- are proof-positive indicators that the soil meets the hydric soil definition
- developed by NRCS with interagency liaison between soil scientists, botanists and hydrologists
- can be updated over time on a regional basis: can be added to with research and field evidence
- more precise and better defined than in the 1987 Corps of Engineers Manual
- based on observable and measurable properties that indicate soil genesis and soil forming processes

The fieldtrip took us to the beautiful Shirley Plantation where we tested the use of several of the new field indicators that were not previously “allowed” to be called hydric, but that fit nicely into the newly recognized criteria.

Several websites that may interest you are:

Regional update of 87 Manual:

<http://www.usace.army.mil/cw/cecwo/reg/Developing%20a%20Regionalized%20Version%20of%20the%20Corps%20Wetlands%20Deli.pdf>
http://www.usace.army.mil/cw/cecwo/reg/reg_supp.htm

Hydric Soil Technical Standard:

http://soils.usda.gov/use/hydric/ntchs/tech_notes/index.html

Hydric Soil Indicators:

<http://soils.usda.gov/use/hydric/>

State Fair Booth

The Virginia State Fair will be held 9/27/07 thru 10/7/07. VAPSS plans to continue its tradition of hosting an informational booth Contact Greg Monnet for more info. gtmonnett@cavtel.net.

Articles Wanted

Submit your articles or announcements for the September Newsletter by the end of August via email to setec@soilandenvironmentaltechnology.com or by fax to 540 381-9430. .

Visit the VAPSS Forum @
www.vapss.org

VT Soil Judging Team Competes Successfully Despite Adverse Conditions

The Virginia Tech Soil Judging Team again finished in the top five teams at the National Soil Judging Championship. The contest was held at Utah State University in Logan, Utah, April 15-20, 2007. This is the third consecutive year that Virginia Tech has finished in the top five, a longer and stronger string than any other school in the USA. Once again the VT team had a student finish in the top 10 out of 80 or more students, for a grand total of nine students in the top 10 in six years. Again, this is an honor not held by any other school. VT has qualified for the national championship by placing high at the regional contest for at least 12 straight years.

This year the team finished 4th out of 21 teams in overall scoring. We practiced through baking sun, chafing winds, rain, muddy pits full of water, dusty pits gravelly soil layers, freezing weather, and two snow storms, one on the morning of the competition, which was held at an elevation of 5,000 ft. The top five teams were Iowa State, Kansas State, West Virginia, Virginia Tech, and the University of Wisconsin-Platteville. In the individual competition, VT's Nick Haus, a senior from Rice Lake WI, finished 5th. Dylan Walker, a senior from Christiansburg, finished 12th. Tim Woodward, a junior from Madison VA, finished 19th. Joe Marshall, a senior from Louisa was 49th. Junior CSES major Amy Gail Fannon from Pennington Gap rounded out the team. VT finished 9th out of 21 teams in the group judging competition.

The contest was marred by the tragedy that took place on the Tech campus. We were in the field practicing when the news came to us by cell phone from friends and relatives. We were in shock. We experienced anger, sorrow, and disbelief. We prayed that it was a mistake, that it would stop, that the numbers were a mistake, and exaggeration. We were stalked by news teams but fortunately, they did not find us. We did not hide nor suffer shame. Instead, we banded together and wore our colors with pride. Teams from schools across the nation stood by our side and prayed with us. We struggled to maintain focus, to compete and concentrate. We were distracted day and night, continually checking to learn if we had lost dear ones. We dedicated ourselves to doing well for the fallen victims. Our goal was to show the world that Virginia Tech is more than a place where tragedy occurs. We attended a memorial service held at Utah State and were overcome with emotion. The TV news cameraman followed us out, put down his camera, and led us in a group prayer. We stopped at Bear Lake and built a memorial.

The team returned on Monday, April 23rd, to join the campus family in memoriam. In celebration of the lives of our family we took an official VT soil Judging Team shirt, added 32 names as "honorary members" on the front, and placed the shirt on the drill-field with the other memorials.

We are Hokies, we are Virginia Tech, we are proud, we are strong. We are in pain but we are so grateful to all who sent messages of sympathy, encouragement, and best wishes. We are so very fortunate to represent such a fine university community.

John Galbraith

Deep Thoughts from Dave Harper

I was digging a pit on my place this weekend and looking at the very interesting profile...yes, just for the heck of it...and a tree limb fell. It reminded me of the saying "if a tree falls in the woods, and no one is there to hear it, does it make a sound?" Then I got to looking at the profile's colors and thought. Does a soil profile have color, if no one digs it up? Scientifically, light is absorbed by the soil and the colors that are not absorbed are reflected into one's eyes to give the color of the soil. IF the soil is not dug up, there is no light being reflected off of it except for the surface. (albedo) Therefore, none of our soils have color deeper than the surface, unless we were to dig it up. Or do we make the logical assumption that it does have color? If so then the tree falling in the woods would make a sound if no one were around. A tape recording of a tree falling in the woods while no one's around may disprove the tree theory, but what of the soil color? You can't stick a video probe in the ground without light to see the color.

Switching to a more practical debate pertaining to soil color... moisture content. Using a Munsell Color Book, it matters if the ped is moist or dry when determining the color. What is the true color of soil after we have dug it up and exposed it to light? Gray, if all minerals are removed and it's exposed to light, I guess.

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Fall Meeting Update

VAPSS Fall Technical Session and Annual Meeting is tentatively scheduled for Richmond VA October 15-17. Soil morphology as an indicator of soil wetness AKA what do all those yellow and red colors really mean? Events will consist of a field day Monday. VAPSS social / dinner Monday night and conference style presentations on Tuesday. Proposed discussion topics include: prediction of soil saturation frequency and duration from soil color, soil consistence and structure as predictors of water retention, soil morphology as an indicator of seasonal high water tables, and much more. Open panel discussions will be held at the end of each session following the technical session. The VAPSS technical committee will host a round table discussion open to all VAPSS members of the proposed revisions to the soil evaluation section of VDH Sewage Handling and Disposal Regulations. VAPSS welcomes abstracts for papers to be presented at the annual meeting. Questions about the applicability of topics should be discussed with Dr. Jim Baker. jbaker@vt.edu or Angie Whitehead soilmapper@yahoo.com.