

(No Subject)

Connecticut Soil Day (and Soil Survey Work Planning Conference)

Come Discover Connecticut Soils
Wednesday, August 21th, 2013

LOCKWOOD FARM
890 EVERGREEN AVENUE, HAMDEN, CT 06518

Morning Indoor Session Starts at 9:00 a.m. **
Afternoon Field Demos 1 - 3:00 p.m.**
Light refreshments and beverages will be provided. Please bring a bag lunch.

http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelordb1144265.pdf (Agenda)
<http://www.nrcs.usda.gov/wps/portal/nrcs/site/ct/home/> (CT NRCS homepage)

RAIN OR SHINE!

*Learn about Web Soil Survey * Get the new soil apps for your smartphone * Describe an open soil pit with NRCS soil scientists
Portable XRF Demonstration * Soil Health Demonstration * Rainfall Simulator*

*Explore Watershed on Wheels * Lockwood Farm Walking Tour*

**There is no cost to attend, but pre-registration is required
To register or get more information, please contact**

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Sponsored by the Connecticut Natural Resources Conservation Service and the Society of Soil Scientists of Southern New England.

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** See details below or in attachment

Connecticut Soil Day

(work planning conference)
Connecticut Agricultural Experiment Station
Lockwood Farm, Hamden, Connecticut
August 21, 2013

Morning Indoor Session

9:00-9:15 AM	WELCOME/INTRODUCTIONS	Debbie Surabian, State Soil Scientist Lisa Coverdale, State Conservationist Luis Hernandez, Soil Survey Regional Director, New England Region
9:15-9:25 AM.....	WELCOME TO LOCKWOOD FARM	Richard Cecarelli , Research Farm Manager LOCKWOOD FARM Connecticut Ag Experiment Station
9:25- 9:40 AM.....	HISTORY/BACKGROUND/UPDATES OF THE NATIONAL COOPERATIVE SOIL SURVEY OF CONNECTICUT	Debbie Surabian
9:40-10:00 AM.....	HOW SANITARIANS USE SOILS INFORMATION	Amanda Clark, Connecticut Department of Public Health
10:00-10:15 AM.....	SOILS ON THE WEB: UPDATES TO WEB SOIL SURVEY/CHANGES IN DATA ACCESS/APPS UPDATES/WEB SOIL SURVEY METRICS	Lisa Krall, Resource Soil Scientist Debbie Surabian
10:15-10:45 AM	BREAK /VIEW POSTERS AND EXPLORE <u>WATERSHED ON WHEELS</u> KIOSKS	
10:45-11:00 AM.....	CONNECTICUT TECHNICAL SOIL SERVICES SUMMARY	Lisa Krall
11:00-11:50 AM	SOIL SURVEY PROJECTS UPDATE INCLUDING INFORMATION ON ECOLOGICAL SITE INVENTORIES (TIDAL MARSH), NATIONAL RAPID CARBON PROJECT UPDATE, POST ACTIVE ACID SULFATE SOILS, WATER TABLE MONITORING IN PROBLEM SOILS.	12-Tol Staff
11:50-12:00 AM	ANNOUNCEMENTS/EVALUATIONS	
12:00-1:00 AM	LUNCH/VIEW POSTERS AND EXPLORE WATERSHED ON WHEELS KIOSKS COMPLETE SURVEY ON YOUR SOILS INFORMATION NEEDS AND DELIVERY PREFERENCES	

Afternoon Field Demos 1:00-3:00 PM

GPR DEMONSTRATION: GPR DEMO OVER FIELD WITH VARYING DEPTH TO BEDROCK..... Debbie Surabian

PXRF DEMONSTRATION: PORTABLE XRF DEMO Doug Pedersen,
(Attendees may bring soil sample for testing) Analytical Instruments Division at Olympus NDT

SOIL PIT/NEW FIELD BOOK FOR DESCRIBING AND SAMPLING SOILS..... Donald Parizek

SOIL HEALTH DEMONSTRATION..... Lisa Krall

RAINFALL SIMULATOR (conducted at 1:00 and 2:00 PM)..... Lisa Krall

TOUR OF LOCKWOOD FARM

WATERSHED ON WHEELS KIOSK (from 1:00-2:00 PM)

WOW Express (Watershed On Wheels)

The Watershed on Wheels (WoW) Express is a traveling exhibit designed to engage children of all ages in the beauty and wonder of the Silvio O. Conte National Fish and Wildlife Refuge, which comprises the 7.2 million-acre Connecticut River Watershed.

Two components of the WOW Express will be on-site

The *Watershed Table* is a large tray filled with sediment in which one builds a river. The colorful plastic acts like sand to create meanders, cut-banks, and point bars. Versatile, this table can be used to show how rivers form from source to sea, or as a tool to introduce vocabulary words about rivers.

Seven Interactive Kiosks employ interactive panels, games, or computer screens to creatively engage viewers in the topics of biodiversity, wetlands, bald eagles, migratory birds, endangered species, migratory fish, food webs, and invasive species.

Handheld XRF Demo, with Olympus NDT

X-ray fluorescence (XRF) is the emission of characteristic "secondary" (or fluorescent) X-rays from a material that has been excited by bombarding with high-energy X-rays or gamma rays. XRF spectroscopy is widely used for elemental analysis and chemical analysis, and is a highly effective tool for analyzing soils. The availability of handheld spectrometers provides a combination of portability, non-destructive on-site analysis, and relatively low cost. Increasing concern over the chemical integrity of soils, spanning the urban to rural gradient, makes this a particularly relevant technology for soils professionals. Olympus NDT will be demonstrating Handheld XRF during the afternoon field session. ****Attendees may bring a sample of soil for analysis during the demo. Samples that are air-dried, homogenized, and sieved to 2mm (or 0.25mm, if possible) will yield the most accurate results.**

Ground Penetrating Radar (GPR) DEMO

CT NRCS soil scientists will demonstrate the use of ground-penetrating radar (GPR) to assess subsurface features. GPR is widely used by a diverse group of service providers that include agronomist, archaeologists, criminologists, engineers, environmental specialists, foresters, geologists, geophysicists, hydrologists, land use managers, and soil scientists. In recent years, GPR has gained recognition in the search for terrorism and military hazards. A common concern of GPR service providers is whether or not GPR will be able to achieve the desired depth of penetration in the soils of a project area. Knowledge of the probable penetration depth and relative suitability of soils can help service providers assess the appropriateness of using GPR and the likelihood of achieving acceptable results.

Rainfall simulator / Soil Health Demos

Erosion and infiltration rates vary by soil type, slope, land use and management. This eye opening demonstration shows how dramatic those differences can be. "Rain" falls on five samples and water from runoff and infiltration is collected. The implications for the environment and our plantings are clear as mud!

How do you evaluate the health of your soil? Try out some tests for infiltration, biological activity, and physical qualities; and get up close and personal with some macro flora!

Soil Pit Observation and Profile Descriptions

There's no place better for really understanding soils than in a soil pit. This one will feature red parent material and illustrate the depth variation of the local bedrock. Soil series you may see include Holyoke, Yalesville, Wethersfield, and Ludlow. Pair your observations with the output from the GPR demo for a complete picture!

It may sound picky, but using the proper procedures and nomenclature to describe a soil profile enables soil scientists and others around the globe to understand the nature of your soil. Whether you are writing scientific articles, documenting your site work, or being a thorough photographer, proper descriptions will improve your result. Learn the latest using the updated [Field Book for Describing and Sampling Soils](#). We'll tell you how to get your own copy of the field book too!

Helping People Understand Soils

[Soils](#) is part of the National Cooperative Soil Survey, an effort of Federal and State agencies, universities, and professional societies to deliver science-based soil information.