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The Newsletter of the Pennsylvania Association of Professional Soil Scientists
PO Box 871, Mechanicsburg, PA 17055

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Erie Soils and Geomorphology Field Trip June 10-11, 2016

Assessing Soil Health – Dickinson College Farm Boiling Springs, PA

PAPSS held its annual meeting and technical session in the Harrisburg/Carlisle area on October 16th and 17th, 2015. The focus of the Saturday technical sessions was on soil health and soil health assessments. Dr. Sjoerd Duiker with Penn State Cooperative Extension presented an overview of the USDA publication, *Soil Health in Field and Forage Crop Production*. The publication recognizes soil health as the continued capacity of soil to function as a living ecosystem that sustains plants, animals, and humans. Improving soil health involves the application of fourteen management principles and techniques related to cash crops, cover crops, pest management, nutrient management, and integration of livestock.

USDA Resource Conservationist, Daniel Dostie, presented the soil health assessment bucket at the Dickinson College Farm and South Middleton Township Park sites on



Saturday. The bucket includes a variety of physical and chemical tests that can be run in a short period of time to assess the health of soil. Mr. Dostie stressed the need to match test results to management needs, because a healthy soil is one that reliably and continually meets the objective for which it is being used.

Daniel Dostie demonstrating the soil health assessment bucket at the South Middleton Township Park.

Jenn Halpin provided an engaging tour of the Dickinson College Farm. As farm manager, Ms. Halpin is responsible for overseeing daily operations and for providing educational opportunities for student workers. The farm produces food for the campus dining hall and for a campus supported agriculture program, and runs an extensive composting operation for food and paper waste from the college. The farm was



Matt Hostrander, Yuri Plowden, Cathy Sorace, and Bob Bressler in the College Farm garlic field.

previously in a corn-soybean rotation, but now produces over 50 types of fruits and vegetables, along with pasture land for livestock. ▼

Information on soil health and the soil health assessment techniques can be found at http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/assessment/

The Dickinson College Farm website, with tour information, can be found at http://www.dickinson.edu/homepage/389/college_farm

Special thanks to all presenters, to Sue Miller for handling food and registrations, and to tour organizer Mark Mills for lining up the venues and speakers.

Wetland Training – Hollidaysburg, PA July 2015

PAPSS sponsored a wetland/hydric soil training seminar in conjunction with US Army Corps of Engineers staff and NRCS staff. The 2015 event was held in Hollidaysburg



Frank Plewa IDs one of Pennsylvania's many sedge species

on lands owned by Corps wetland specialist, Frank Plewa. Mr. Plewa has created open water and emergent wetland areas on the property in addition to the natural wetlands already present. The property is located on the north side of a low ridge and extends north through terrace and floodplain landscapes to the Juniata River. Soils are mapped as Brinkerton silt loam on the sloping hillsides, Purdy silt loam on the terrace, and Holly silt loam and Basher soils on the floodplain.

Day one of the training included an overview of wetlands in Pennsylvania and indicators for

wetland vegetation and hydrology presented by Mr. Plewa. John Chibirka, NRCS soil scientist, discussed basic morphology, redoximorphic features. and common hydric soil indicators in Mr. Plewa and Mr. the region. Chibirka coordinated field activities on day two, including a soil texturing lab and pointers on plant identification. Mr. Plewa stressed the need to "tell the story" when completing a field delineation and wetland report. It may not be possible to fit every situation nicely into the data forms, but a thorough delineation and report can always provide strong support for a field determination.



John Chibirka leads a soil texturing field exercise

PAPSS thanks Mr. Plewa and Mr. Chibirka for their continued support in the wetland training seminars.



Photos by Mark Mills



To: Certified Professional Soil Scientists and Soil Classifiers

RE: Changes to Soils CEUs

Getting the minimum number of CEUs to maintain your certification just got easier. The Soils Certifying Board has approved changes to a few of the categories, **removing** maximums for all categories, as well as changing the overall minimum requirements from 40.0 CEUs to **30.0** CEUs.

Effective for 2015, these are the changes to your 2-year CEU cycle:

- The Self-Directed Study Category has been renamed Professional Study.
 Professional Study CEUs include reading scientific journals (reported by article, 1 CEU = about 2,500 word article) or books, watching DVDs (2X the run time = # of CEUs), attending webinars, and taking online training.
- The Author Educational Materials and Community Service categories have been combined into one category called **Professional Service**. Professional Service CEUs include election to/participation on professional boards, service to the profession (e.g., serving on professional society committees, exam committees, standards/ethics panel, certification boards, editorial boards), serving on city/town/county committees, any community service related to the profession, publishing scientific papers and books, popular articles, and preparing educational materials.

The categories that did not change are:

- Professional Meetings: Short courses, workshops, clinics, conferences, symposia, seminars, field days, college courses, scientific presentations, distance education.
- Ethics (1 CEU required each renewal period): ethics seminar pertaining to the soil science profession and practice, sufficient length to qualify for 1.0 CEU. Place, time, and instructor must be specified on the CEU reporting form.

The category changes, no maximums, and overall 30.0 CEU minimum requirement changes are now reflected on your online CEU statement.

If you are a Certified Professional Soil Scientist or Soil Classifier, remember to check and report your CEUs at www.soils.org.

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Comments or contributions? mlane@brickhouse-environmental.com

International Year of Soils - 2015

On July 14, 2015, the PA Senate unanimously adopted Senate Resolution 169 recognizing Pennsylvania's observance of 2015 as the "International Year of Soils" with bipartisan sponsorship of 10 Republicans and 5 Democrats.



THE GENERAL ASSEMBLY OF PENNSYLVANIA SENATE RESOLUTION

No.169

Session of 2015

INTRODUCED BY VOGEL, EICHELBERGER, SCAVELLO, YAW, TEPLITZ, BARTOLOTTA, VULAKOVICH, DINNIMAN, FONTANA, GREENLEAF, SCARNATI, RAFFERTY, ARGALL, TARTAGLIONE, AUMENT AND SCHWANK, JULY 14, 2015

INTRODUCED AND ADOPTED, JULY 14, 2015 A RESOLUTION

Recognizing 2015 as the "International Year of Soils" in Pennsylvania.

WHEREAS, The 68th United Nations General Assembly declared 2015 as the "International Year of Soils"; and

WHEREAS, Pennsylvania's many agricultural and natural resource industries depend on an understanding of soil diversity and soil fertility requirements in order to produce commodities for our communities; and

WHEREAS, In addition to producing commodities, soil filters water, acts as a rooting support for plants that provide the oxygen we breathe and the fibers for our materials, contains anti-producing bacteria and acts as a structural support for our infrastructure; and

WHEREAS, Soil scientists work collaboratively with professionals of other disciplines, such as professional geologists, surveyors and civil engineers, to service the needs of thousands of businesses to help them meet their respective goals in both urban and rural settings; and

WHEREAS, Many Pennsylvania academic institutions, including The Pennsylvania State University, Delaware Valley University and Bloomsburg University, have well-established academic programs which educate individuals in the practice and science of soil; and

WHEREAS, Members of the **Pennsylvania Association of Professional Soil Scientists** have undertaken an important role in informing this Commonwealth's residents, businesses and municipalities about the need to understand the importance of soil science; Therefore, be it

RESOLVED, That the Senate recognize 2015 as the "International Year of Soils" in order to increase awareness of the importance of soil and soil science to residents of this Commonwealth.

Soil Science Licensing Legislative Update

by Michael Lane

Senate Bill 845 was introduced on May 20, 2015 by Senators Schwank, Vogel, Greenleaf, Farnese, Fontana, Costa, Mensch, and Yaw, and was referred to the Consumer Protection and Licensure Committee. The language of the bill is the same as SB1176 from legislative session 2013-2014. Michael Lane and Michael Callahan met with the new executive director of the committee, Mr. Travis Gery. Mr. Gery was generally receptive to the bill, but requested substantial support in the form of examples of harm. Subsequent requests to PAPSS membership for examples of harm did not generate a significant response.

On September 9, Michael Lane and Matthew Hostrander spoke before the Registration Board for Professional Engineers, Land Surveyors, and Geologists. The individual members of the Board recognized the importance of soil science and qualified practice of soil science, but questioned the form of the legislation and the need for a new license. The Board questioned whether a soil science license would be better placed with landscape architecture or as a separate board.

In addition to arranging the above meetings and lobbying for the licensing legislation, PAPSS lobbyist, Phillips Associates, advanced the International Year of Soils Senate resolution and lobbied against the expansion of the sales tax to cover professional services.

At the annual business meeting in October, PAPSS voted to alter its relationship with Phillips Associates. PAPSS will no longer pay a monthly retainer, but will maintain its relationship with Phillips Associates. Phillips agreed to continue to be the eyes and ears of PAPSS in Harrisburg, with the PAPSS Board responsible for authorizing any direct fee lobbying activities.

SB845 is still in committee and PAPSS members will continue to support its passage. Jackie Heinl has posted an online petition (http://tiny.cc/g9985x) in support of licensing. Please click the link to support.

Delaware Valley's Larry Hepner Retires

PAPSS member Larry Hepner retired from Delaware Valley University after 36 years. A retirement reception was held on May 11 at the University.

Larry received the Distinguished Faculty Member Award in 1995 and served as interim Dean of Agricultural and Environmental Sciences.

In addition to his teaching duties, Larry was also involved in soil science research, including alternative on-lot wastewater treatment systems installed at Delaware Valley.



l to r; Larry Hepner, Joe Valentine, Paul Golrick, and Michael Farbotnik – photo by Ed White

Best wishes in retirement, Larry.

PAPSS Professionals Can Help Prevent the Spread of Avian Influenza by Yuri Plowden

According to a report by the Animal and Plant Health Inspection Service ⁽¹⁾, highly pathogenic avian influenza (HPAI) has been detected in commercial and backyard poultry flocks, wild birds, or captive wild birds in 21 states. Although no cases of HPAI have been identified in Pennsylvania (geographically the nearest case was reported in

Indiana in May 2015), Pennsylvania is among the top 20 broiler, turkey, and layer producing states and it has recently reviewed its preparedness for an HPAI outbreak.

What does this have to do with PAPSS? Poultry producers in Pennsylvania are being strongly encouraged to have a flock plan to address specifics of depopulation, disposal, and cleaning and disinfection methods (2). Allowable methods of disposal of avian influenza infected bird flocks include



Chickens seeking shade – Geoffrey McKim

composting, burial, and landfill, as well as rendering and incineration. The Natural Resources Conservation Service (NRCS) is the lead federal agency with soils information, and most of its staff are capable of providing basic soil survey information and disposal interpretations to identify potential areas that would meet Department of Environmental Protection (DEP) criteria. However, if a producer wants an onsite evaluation, NRCS staff have been instructed to refer him/her to PAPSS professional members. The NRCS has published a bulletin that includes the DEP regulations and guidelines for animal disposal. The document is PA 130-15-2-Avian Influenza (AI) Soils information.pdf ⁽³⁾.

HPAI spreads rapidly and is often fatal to chickens and turkeys. It was identified in the U.S. in December 2014 in the Pacific Northwest, and since then a total of 211 commercial and 21 backyard poultry premises had been affected –resulting in the depopulation of 7.5 million turkeys and 42.1 million egg-layer and pullet chickens in 21 states. Information published by USDA about HPAI can be found at: http://www.usda.gov/wps/portal/usda/usdahome?contentidonly=true&contentid=avian_influenza.html

References

- (1) Fall 2015 HPAI Preparedness and Response Plan, Animal and Plant Health Inspection Service Veterinary Services, September 18, 2015 https://www.aphis.usda.gov/animal_health/downloads/animal_diseases/ai/hpai-preparedness-and-response-plan-2015.pdf
- (2) Producers Encouraged to Complete Work and Flock Plans, Practice Good Biosecurity to Protect Against High Path Avian Flu http://www.media.pa.gov/pages/Agriculture_details.aspx?newsid=354
- (3) Pennsylvania Bulletin No. PA 130-15-2, Subject: Avian Influenza (AI) Soils Information. http://pacd.org/webfresh/wp-content/uploads/2015/09/PA-130-15-2-Avian-Influenza-AI-Soils-Information.pdf ■

Honorary Memberships Awarded

by Yuri Plowden

Honorary members have all rights and privileges afforded to Professional Members, shall be elected by 2/3rds vote at a regular meeting, and will not be required to pay annual dues.

As part of our 40th anniversary celebration during the annual meeting, PAPSS members voted unanimously to grant honorary memberships to Jake Eckenrode and Ned Ellenberger. On a sunny November morning in State College, we officially acknowledged Jake and Ned's contribution to soil science and to PAPSS.

Jake Eckenrode began his soil scientist career in 1966 after earning a degree in Agronomy from Penn State. He has mapped in Crawford, Wyoming, Lackawanna, Luzerne, Northumberland, Snyder, Union, Clinton, and Potter Counties as well as soil survey details in Florida and Alaska. He has mentored many a soil scientist who have gone on to successful soil science careers in PA and other states. He retired from NRCS in 2005, and has continued working as a private professional soil scientist.

Jake has been a PAPSS member since its inception, served on its board and was active in our attempts to get Hazleton adopted as a state soil. Jake has written many materials that are still being used today – Introduction to Soils of Pennsylvania, the FFA Soils Land Judging manual, Pennsylvania Soil Survey Biographies, and various Agronomy Series on the History of Soil Survey in Pennsylvania, to name a few. He was one of the early contributors to the Pennsylvania Envirothon program, and he has been a stalwart supporter of PAPSS.



Ned Ellenberger (3rd from left in second row) and Jake Eckenrode (4th from left in second row), Tim Craul-PAPSS Professional member (3rd from left top row), Jackie Heinl – PAPSS Board member (far right on top row), Yuri Plowden – PAPSS 2016 president (second from right in second row), and family members and friends at the Cracker Barrel in State College, November 2015

Ned Ellenberger graduated with a degree in Agronomy from Delaware Valley College in 1971, and then worked on the family farm before starting as a GS-5 Soil Scientist in 1974 in New Castle, Lawrence County, PA. He has worked on soil surveys throughout PA including Lycoming, Clearfield, Bedford, Fulton, Franklin, and Westmoreland Counties. He did soil survey details in Maine and northern Minnesota. One highlight of his career was sampling soils for a state-wide EPA Acid Rain study. He retired from NRCS in 2005.

Ned is also a valuable mentor to younger soil scientists and has been a continuous supporter of PAPSS including serving on its board. He has been a member since 1992 and attended nearly every PAPSS annual meeting in recent memory. When NRCS soil scientists are asked to name the consummate field soil scientist, Ned Ellenberger's name is always mentioned first.



Pedon Ponderings: Notes from the Incoming PAPSS President

Greetings from State College, Pennsylvania! As the newly elected president to PAPSS for 2016, I would like to introduce myself. I am Yuri Plowden, Ecological Site Specialist and Soil Scientist for the Natural Resources Conservation Service (NRCS). I've been a professional soil scientist since 2002 and a member of PAPSS for almost as long. I am honored to serve as PAPSS president and look forward to working with the new board this coming year.

Yuri Plowden, 2015-2017, President Matt Hostrander, 2015-2017, Vice-President Cathy Sorace, 2016-2018, Secretary Michael Lane, 2014-2016, Treasurer Jackie Heinl, 2016-2018 Charlie Klinger, 2016-2018 Bruce Willman, 2016

Thank you to Cathy Sorace for her service as 2015 PAPSS President. Thank you to Bill Davis, Patrick Drohan, Mike Callahan, and Chris Whitman for their service on the Board.

PAPSS has been an important organization for its support of the soil science profession for four decades. 2015 marked our 40th anniversary. Let me reflect on what we've recently accomplished. We maintain a registry of private professional soil scientists who provide a multitude of soil science services. We provide trainings on hydric soils, ethics, and soil quality (to name a few) to our members as well as other environmental resource professionals. We've organized interesting tours: recent destinations have included an Ebensburg co-generation power plant, Centralia, the Dickinson College Farm, Wildwood Park wetlands, and the Yuengling brewery.

We have worked within the Pennsylvania legislature to bring more awareness of soil science through our efforts on professional licensing and on a state soil. We teach basic soil science concepts to students through the Envirothon program as well as provide a scholarship to college students studying soils as part of their major. We support collegiate soil judging competitions, and we provide important opportunities to meet, gather, and network. In this way we are an important resource for soil science information.

We are already busy with plans for 2016. We will have a technical session in Erie, Pennsylvania June 10-11th, 2016 and will have our annual meeting in October. We are reviewing our by-laws and CPSS credentialing requirements for our registry. We are developing a record-keeping policy (none exists at the moment). At the annual meeting, we decided to lay down our active lobbying efforts for professional licensing due to lack of movement on that issue and the draining of financial, time, and energy resources. We will maintain eyes and ears in the PA legislature through Vince Phillips of Phillips Associates who we will retain on an ad hoc basis.

Please remember that one of our own, Chris Whitman, past president and board member, has been recovering from a serious illness. You can assist his family through this difficult time by either contributing online through a gofundme account (http://www.gofundme.com/r6peryw), or by sending a check to PAPSS clearly earmarked for Chris Whitman, and we will send his family a group donation. If you would like to send your donation through PAPSS, please send your check payable to PAPSS to Sue Miller by January 15, 2016.

Thanks to all of you for being a part of PAPSS. Please do not hesitate to contact me or any member of the board if you have questions, ideas or concerns. All the best for 2016! ■