

FEBRUARY 2017

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

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North East Collegiate Soil Judging 2016

Stone Valley Forest Headquarters

By Yuri Plowden

PAPSS members happily assisted with the 2016 Northeast Collegiate Soil Judging Competition. Twenty-one teams from nine schools (88 students total) participated in the competition which took place in Huntingdon County, Pennsylvania at Penn State's Stone Valley Forest Headquarters in early October. "We had the largest contest in the history of the Northeast," said Dr. Patrick Drohan, Penn State Pedology Professor, and host of this year's contest. Participating schools were Bloomsburg University (PA), Delaware Valley College (PA), Ohio State University (OH), Penn State University (PA), Stockton University (NJ), University of Maryland (MD), University of Rhode Island (RI), West Chester University of Pennsylvania (PA), and Wilmington College (OH).

Top overall honors went to Bloomsburg University in only their second year of participating in soil judging. University of Maryland took 2nd place, followed by University of Rhode Island and Delaware Valley College. Teams from these four schools will progress to the nationals which will be hosted by Northern Illinois University in Dekalb, IL in 2017.



Bloomsburg University A team, from left to right: Daniel Steinhauser, Eric Franz, Dr. Matt Ricker (team coach), Josh Prezkop, and Ryan Sullivan, overall first place team winners.



The individual winner was Jared Cianciolo from the University of Rhode Island (*pictured at left with team coach Dr. Mark Stolt*). Eric Franz of Bloomsburg University placed 2nd, Kristine Persing from UMD, was 3rd, and Kylie Seese of OSU and Mark Younkins of PSU placed 4th and 5th, respectively.

The soil pits were located on residual and colluvial limestone soils with varying histories of disturbance from logging to farming to homesteading. Students had to describe the soils and evaluate the suitability of each site for dwellings with basements, septic tank absorption fields, and roads. The logistical challenge of moving 88 students through 5 pits in both team and individual competitions all in one day was monumental, not to mention the organizing of multiple practice pits and the planning prior to the competition. The combined efforts of dozens of volunteers from university, state, federal (NRCS PA and 6-MIL staff), and private nonprofit organizations made it happen. PAPSS members scored, monitored pits, directed students to and from sites, networked, and provided general support. In the end, the students had a memorable and fun learning experience! ■

SSSA Announces New Certification Program, Eliminates Professional Practice Exam for CPSS Certification

Effective January 2017, the Soil Science Society of America (SSSA) has created a new class of soil science certification, the Certified Soil Technician (CST) and has eliminated the professional practice exam requirement for the Certified Professional Soil Scientist (CPSS). Luther Smith, Director of Professional Development and Business Relationships for SSSA, confirmed via email that the CST would not be offered in states with professional licensing, unless the state wants it. It would be evaluated on a case by case basis to avoid conflict with licensing programs.

The professional practices exam will NOT be required for the CPSS certification and will only be required in states who participate in a licensing program. These states include Maine, Minnesota, New Hampshire, North Carolina, North Dakota, South Carolina, Tennessee, Texas, Virginia, and Wisconsin.

	Exam to Pass	Education	Experience
Certified Professional Soil Scientist (CPSS)	Fundamentals of Soil Science	Minimum BS degree in Soils or related area (15.0 semester credits in soils)	5 yrs post BS or 3 yrs MS/PhD
Associate Professional Soil Scientist (APSS)	Fundamentals of Soil Science	Minimum BS degree in Soils or related area (15.0 semester credits in soils)	Upon Graduation
Certified Soil Technician (CST)	Fundamentals of Soil Science	Minimum Associate's degree in Soils or related area (7.0 semester credits in soils)	3 yrs post AS, 2 yrs post BS/MS/PhD

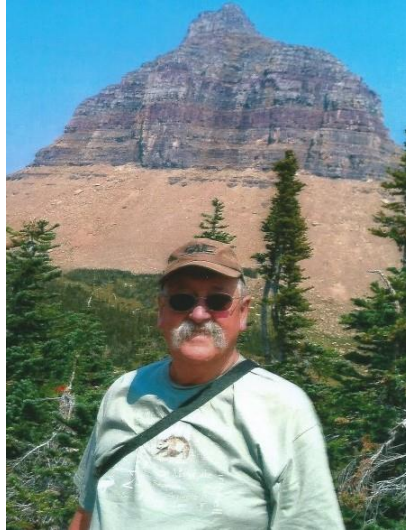
Information related to these changes can be found on the webpage of the SSSA at <https://www.soils.org/certifications/become-certified>. ■



Is it a B, BC, or C horizon?
Students at the 2016 Northeast Collegiate Soil Judging Competition hosted by Penn State.

Richard C. Cronce

February 12, 1950 – December 21, 2016 (age 66)

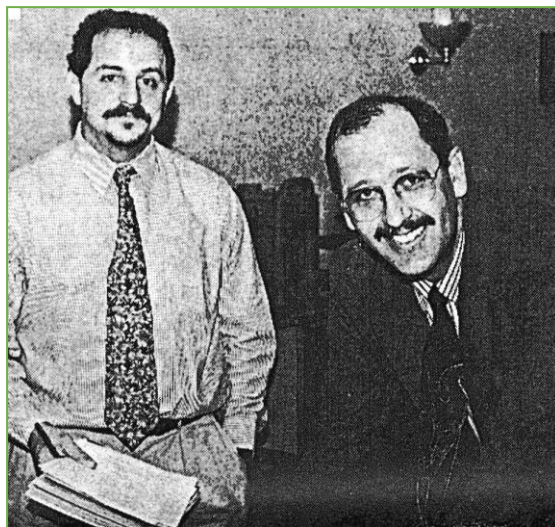


On December 21, 2016, Richard “Dick” Cronce of Bainbridge passed away at age 66 after a courageous battle with cancer. Originally from Phillipsburg, NJ, Dick was the loving husband of 43 years to Cynthia (Davenport) Cronce; caring father of Jesse (Olivia Tassone) Cronce and David (Elizabeth) Cronce; devoted son of Charles and the late Grace (Pursell) Cronce and brother of Donna Monck Wollman, James (“Jim”) Cronce and Jay Cronce; and dear cousin, uncle and friend to many others.

At age 19, Dick was drafted into the U.S. Army and served in Vietnam for one year. He later earned a PhD in agronomy/soil science from Pennsylvania State University. He went on to work as an environmental consultant. He was an avid gardener and fisherman, who also played the guitar and sang in a bluegrass band called the Shuey Brothers. Dick loved to travel, including visits to missionaries across the world.

A memorial service was held on January 7th at Word of Life Chapel. Memorial donations may be made to the Word of Life Chapel at 139 Wickersham Road, Bainbridge, PA 17502, or the Water Street Mission, 210 S. Prince Street, Lancaster, PA 17301 or www.wsm.org/donate.

Dick was a longtime member of PAPSS, joining in 1979, and serving on the PAPSS Board from 1990 through 1992, and as editor in 1980 and 1981. He was active with the Penn State Soil Judging Team between 1981 and 1986 and served as coach of the team. He was co-author of the PAPSS Manual for Soil Investigation in Pennsylvania and authored many other scholarly articles on geology and soils. Dick participated in the recent soil science licensing effort and attended meetings with legislators in Harrisburg and offered valuable comments to the draft legislation.



Dick was friend and mentor of many and will be fondly remembered and sadly missed.

In the sweet by and by
We shall meet on that beautiful shore
<https://vimeo.com/19875011>

*Jon Pollack and Dick Cronce (r)
Soils and Bioremediation
PAPSS technical session
October 1994*

Annual Business Meeting

At the annual business meeting on October 8, 2016, PAPSS membership elected new board members and re-elected Yuri Plowden for aprecedented second term as president.

The Board members, their elected positions, and terms are:

Yuri Plowden	2015-2017 President
Matt Hostrander	2015-2017 Vice-President
Bruce Willman	2016-2018 Treasurer
Luke Smeltz	2017-2019 Secretary
Charlie Klinger	2016-2018
Jackie Heinl	2016-2018
Alex Dado	2017-2019

To provide liability protection for Board and committee members in carrying out their duties, such as approving or denying membership applications and awarding scholarships, PAPSS voted to add a Directors and Officers insurance policy to go along with general liability insurance. This policy provides reimbursement for legal costs arising from litigation against PAPSS members when acting on behalf of the organization. ■

The White House
Office of the Press Secretary
For Immediate Release
December 05, 2016

FACT SHEET: The Obama Administration Announces New Steps to Advance Soil Sustainability

The White House Office of Science and Technology Policy (OSTP), in collaboration with Federal agencies and private-sector stakeholders, is announcing new steps to work towards the long-term health and sustainable use of one of America's most important natural resources: its soil. OSTP is also releasing a Federal framework for soil science, developed in collaboration with more than a dozen Federal agencies, with input from approximately 80 stakeholders from academia, industry, non-profit organizations, and the agricultural community.

Soil is essential to human life. Not only is it vital for providing most of the world's food, but it also plays a critical role in ensuring water quality and availability; supports a vast array of non-food products and benefits, including mitigation of climate change; and sustains the biodiversity needed for ecological resilience. These roles make soil essential to modern life. Thus, it is imperative that everyone—city dwellers, farmers and ranchers, land owners, and rural citizens alike—take responsibility for caring for and investing in our soils. Given their importance, soil must be protected from degradation, as the alternative is the loss of an array of important ecosystem services.

The new actions aim to advance scientific understanding of soils so that land managers and farmers are better able to care for them and maintain their ability to support food security, climate mitigation, ecosystem services, and public health. These actions focus on three key areas:

1. **Promoting interdisciplinary research and education**, to answer key questions on rates of soil genesis and erosion, the role of soils in bioenergy production, the development of advanced soil sensors, and research to better understand non-agricultural soils.
2. **Advancing computational tools and modeling**, to improve analytical capacity and develop a robust predictive framework in studying soil properties, including pursuing a more sophisticated understanding of soil-carbon fluxes and the potential for soil-carbon sequestration.



3. **Expanding sustainable agricultural practices**, to ensure farmers and ranchers have the information and tools they need to protect and enhance agricultural soils and ensure global soils can continue to provide food security and climate benefits for future generations.

The Future of Soil Resources in the United States

In the United States, soil on cultivated cropland is being eroded at an estimated rate of 5.2 tons per acre per year, while the rate of soil formation averages approximately 0.5 tons per acre per year. In some parts of the Midwest soil erosion rates are double the national average, and extreme weather events can erode significant quantities of agricultural soil—in some states, erosion has been measured at over 100 tons per acre in a single storm. That means that a layer of soil that took over 350 years to form can be destroyed in one day.

Climate change is expected to increase pressure on soil as the frequency of extreme weather events increases, bringing more erosive rain which can accelerate soil loss.

Non-agricultural soils also face challenges. Many urban soils have been contaminated with lead or toxic substances, posing a threat to human health. In some cases, intensive forestry and rangeland practices have also resulted in release of substantial soil carbon into the atmosphere, slowing progress toward tackling climate change. A further challenge has been the deposition of atmospheric pollutants in forests, which has leached essential nutrients from forest soils in many parts of the Nation.

The actions announced were developed in response to dynamic challenges and new opportunities in soil health. Advances in science and technology—including in information technology—are creating unprecedented opportunities for intelligent and responsible management of natural resources. These actions represent steps toward a more sustainable and resilient future.

For the full text of the fact sheet, visit <https://www.whitehouse.gov/the-press-office/2016/12/05/fact-sheet-obama-administration-announces-new-steps-advance-soil>. ■

Pedon Ponderings

Yuri Plowden, 2017 PAPSS President

Hello all,

It's the new year and those of us serving on your Board are looking forward to it. We are committed to supporting the soil science profession and providing events and venues to share soils information, network, and further our own learning. As professional soil scientists, PAPSS members use our expertise to promote general human welfare and wise, conservation-minded use of the environment.

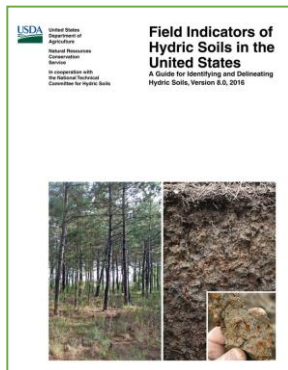
Some things we are considering for 2017 include, offering a technical session in conjunction with the 2017 Northeast Pedology Field Trip in June, updating our website to allow online registration and payment for events, providing training on hydric soils, wetland determinations, and erosion and sediment control, developing some creative fundraising ideas that could also serve as outreach, and updating our by-laws.

Also on our minds are the changes to SSSA certifications, primarily the creation of the Certified Soil Technician certification (see article in this issue). This would provide certification for those doing soil science-related work but do not have the education requirements for the CPSS program.

We have also continued discussions about the registry, and whether to offer a regional map showing the areas where our professionals serve.

Stay tuned and stay in touch! ■

Field Indicators of Hydric Soils, Version 8



The National Technical Committee for Hydric Soils has updated the Field Indicators of Hydric Soils in the United States to version 8.0. Hardcopies are available from the NRCS distribution center and in electronic format. The updated version of the Field Indicators includes all changes made in the errata for version 7.0. There are also two general format changes that were made to some indicators to provide better consistency and clarity that have no effect on the requirements of the indicator.

The first change is that the word within was removed and replaced with at a depth \leq . For example, F3. Depleted Matrix used to read "... starting within 25 cm..." and now reads "...starting at a depth \leq 25 cm..."

The other general format change that was made is in indicators that used to give thickness requirement entirely within a bottom depth. These indicators now state the thickness requirement and the top depth. For example, F6. Redox Dark Surface used to read "...10 cm thick entirely within 30 cm..." and now reads "...10 cm thick starting at a depth \leq 20 cm..."

These wording changes do not change the requirements of any indicator, therefore a soil that met the indicator the way it was previously worded should still meet the indicator and a soil that did not meet the indicator will continue to not meet that indicator. The changes were made due to confusion caused by the original wording and recommendations to provide better clarity and consistency with wording of other indicators. ■



PAPSS Online
www.papss.org

Web Soil Survey
websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

NRCS Digital Soil Survey App
<https://casoilresource.lawr.ucdavis.edu/>

Comments or contributions?
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