



PENNSOIL

The Newsletter of the Pennsylvania Association of Professional Soil Scientists December 2002
P.O. Box 61035, Harrisburg, PA 17106-1035

Register PAPSS 2002 Annual Meeting and Technical Session-December 13, 2002

On Friday, December 13, 2002, Dr. Hangsheng (Henry) Lin, Assistant Professor of Hydopedology/Soil Hydrology at Penn State and Joe Valentine of DelVal Consultants will present "Hydopedology and it's Effects on Wastewater Renovation" at the Dauphin County Agricultural Center December 13, 2002. The annual business meeting will be held from 9:00am-12:00pm, lunch from 12-1, and a technical session 1:30-4:00pm. The meeting is free to all PAPSS members and \$10 for non-members. Directions and local hotel information is included in the mailed announcement. Hope to see you there! Call Tim Craul (814)865-2306 for information, or register on the PAPSS web site: www.papss.org/upcoming_events.htm
Nancy Sansoni

Meet the President

The 2002 PAPSS President, Tim Craul started as a soil scientist in the Commonwealth of Kentucky in 1986 working in Fleming County, Kentucky. In 1988, Mr. Craul was hired by



Tim Craul in Pike County

USDA-NRCS, then the Soil Conservation Service, to update soil surveys in the southeastern portion of Pennsylvania where he worked on the soil survey updates for Berks, Bucks, Lehigh, and Northampton Counties. Mr. Craul was made project leader for the

soil survey update of Pike County, Pennsylvania in 1990, where he finished the fieldwork in 1993. Between 1993 and 1997, he worked in Clinton County, Pennsylvania completing the fieldwork for

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soil survey update of that area. In 1997, he was made the supervisor of the Map Compilation Center, later renamed the Map Compilation and Digitizing Center. Mr. Craul received his Bachelors of Science in Agronomy in 1984 from Penn State and his Masters of Science in Soil Science from Penn State in 2000. Mr. Craul has been a Certified Professional Soil Scientist since 1998.

Pennsylvania Soil Survey Archive

by Jake Eckenrode

(Editors Note: A list of the Archive contents is attached separately in this newsletter for you to file as a reference.)

The "Pennsylvania Soil Survey" now has an official "Archive" located in the Pennsylvania State University Pattee and Paterno Libraries. Within this newsletter is a separate list of the first materials to be archived. Additional material can be added at any time. I would suggest contacting Jake Eckenrode or Ed Ciolkosz to submit materials to the Archive Library. The Archive will be housed within the library, or in alternate climate controlled storage, and can be

accessed by anyone on 24 hours notice. Items can be used in the library facility itself, but cannot be removed. Also, the archive director indicated that they are currently generous at making copies of specific items and sending via mail, and sometimes electronically. This could change in the future. I personally think that this is a very worthwhile endeavor. When I tried to put a historical display together several years ago for the Soil Survey Centennial celebration I realized how scarce some of the early historical items had become. Too often they are just round filed when they become slightly outdated, and are not available for use in the future. This material can be quite valuable for people doing research or for someone documenting the past.

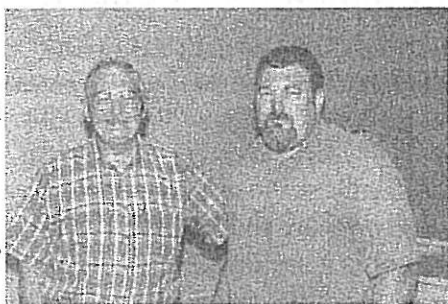
Please spread the word about the archive, and feel free to add to it at any time. Don't throw away your old soil science references, donate them! Also, I plan to put together a photographic addition to the archive. Please send any photos or slides (or copies) of soil survey activity that you may have. Captions are helpful but not required.

One last note. Items for the archive need not be ancient, like Ed Ciolkosz or myself. If you have something to donate, send it in.

The Summer Technical Session on Urban Soils -- Some Problems and Solutions

by Tim Craul

Another successful Summer PAPSS Technical Session was held at Penn State on August 9, 2002. We had a large turnout of about 67 people from both PAPSS and the local



Dr. Phil Craul and Tim Craul

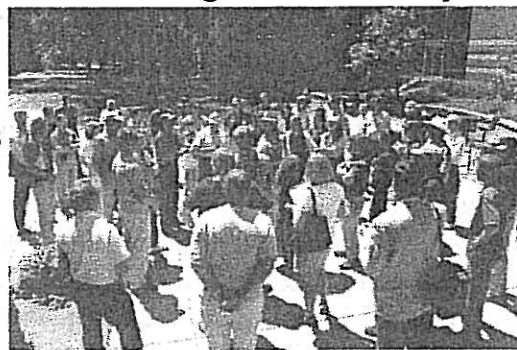
chapter of the American Society of Landscape Architects. People from as far away as Richmond, Virginia attended this meeting.

The purpose for this session was to improve the collaboration of Soil Scientists with other

professions in an effort to expand communication, education, and explore opportunities for multi-disciplinary projects. It was hoped that inter-professional networking will provide a strong basis for interdisciplinary teams to complete projects where soils are a major factor in the successful and long term sustainable design.

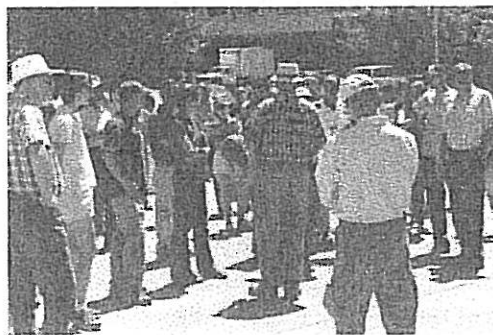
The topics covered all dealt with aspects of the soil profile that are needed to provide an acceptable growth media for landscape plants and design. Dr. Phil Craul also covered some design recommendations and how to go about assessing a site for landscape planning. I

discussed the soil specifications needed to make sure that the soil to which the plantings will be placed is



mixed and placed correctly. We then took a tour of the Penn State campus noting proper procedures, and solutions to problems that they were having. The Penn State Landscape Architect and both his Landscape Supervisors were in attendance. They helped us fill in the history of certain projects and applications on campus.

Many of the attendees came up to both Dr. Craul and myself wanting more of this type of



presentation. Overall, the response of the participants was very enthusiastic. I feel that further sessions can

be held in conjunction with other professional organizations in the future to further expand on the exposure of other professions to soil scientists.

Northeast Collegiate Soil Judging Contest Hosted by Penn State

by Mike Callahan, PSU Coach

The results are in, and Penn State has qualified to go to National Collegiate Soil Judging Contest next spring with their third place finish in this year's Northeast regional soil judging contest. Five students competed from PSU, three of which placed in the top ten, the most of any school. Those students were Mike Kochuba (2nd place), Tim Daubert (5th place), and Keith Shadle (10th place). Mike missed first place by only 1 point, an astonishing performance amongst a group of very talented soil judges from across the Northeast. Mary Kay Krasinski and Patrick Kelly also both competed and did very well in their first soil contest. The top three teams were the University of Maryland (coached by former Penn Stater Brian Needelman), Ohio State University (coach Neil Smeck), and Penn State. Delaware Valley College (coach Joe Valentine) from Southeast PA placed fourth, only 4 pts away from 3rd place. I would encourage you to commend these colleagues next time you speak with them. PSU, Maryland and OSU will be heading to Texas A&M next April to compete with around 20-25 other teams from across the nation for the coveted national championship. Please congratulate these students for their hard work and perseverance during last Friday and Saturday's competition.

Continued Planning for the 2006 World Congress of Soil Survey

On Tuesday November 12, 2002, the Soil Science Society of America held a 2006 World Congress of Soil Science Field Trip Planning Meeting during the American Society of Agronomy Meetings. The meeting chaired by Dr. Marty Rabenhorst, University of Maryland and John Kimble, USDA-NRCS, National Soil Survey Center, reviewed the status of proposed Pre, Post and One Day Mid Conference Tours. Since the Conference will be held in Philadelphia, PA, many more local one day mid-week scientific tours will be needed for the 2,000 to 6,000 soil scientists expected to attend. The Mid-Week scientific tours will be coordinated by Ed White, State Soil Scientist,

USDA-NRCS. Proposals for one-day scientific based tours can be sent to the listserver AT: Since the event is international, each scientific tour is expected to include cultural sights.

The Congress is held every 4 years by the International Union of Soil Science. The theme of the July 10-15, 2006 Congress is "Frontiers of Soil Science: Technology and the Information Age."

To subscribe to the World Congress Field Trips Listserver, send a blank email to:
join-worldcongressfieldtrips@caslists.cas.psu.edu

The following are some of the PRE or POST

Conference tours being planned for a 4 to 7 day length.

SE USA - NC, VA, PA- Soils of the Coastal Plain, Piedmont and Ridge and Valley Provinces; cultural stops include Wright Brothers, Monticello, Thomas Jefferson's Home, Gettysburg - MJ Vepraskas, John Galbraith, et.al.

Midwest USA- MO and IL Cohokia Mounds in Illinois, a major levee break in 1993, urban-suburban soil issues along Missouri River, forest-prairie ecotone and Hans Jenny's work in Tucker Prairie -Dave Hammer, Ray Sinclair.

Southern Mississippi Valley -AR, TN, MS, LA - to include Sharkey vertisols and Mississippi floodplains in rice producing area. Loess and dune deposits, dune alluvium. -Moye Rutledge, Doug Wysocki.

Cryosols and Arctic Tundra Ecosystem -Alaska-through the boreal forest and alpine zones, cross the Brooks Range into arctic tundra. Fairbanks to Prudhoe Bay- Chien-Lu Ping.

Mexico- Mexico City to Veracruz or to Oaxaca- Soil Use and management of Andisols, Vertisols, Mollisols, Inceptisols, and Alfisols. - Carmen Gonzalez Chave nad Carmen Gutierrez.

Southwest USA - El Paso to Las Vegas- The Dessett Project by Gile, et al, through Northern Arizona and Grand Canyon and incude Utah and New Mexico. Curtis Monger, Bill Broderson.

Cuba- Landuse and soils in Cuba- Pedro Sanchez

Georgia and Alabama- Mississippi River to the Mountains. Warren Lynn, Larry West

NE Soils and Water Quality- Philadelphia, MD, PA, NY and NY City- Atlantic Coastal Plain, Piedmont, Ridge and Valley and Glaciated Allegheny Plateau focus on soil and landscapes that effect water quality and nutrient transport. Peter Kleinman, Ray Bryant, Andrew Sharpley, Brian Needelman.

Southern California -California Coast

Northwest US- Oregon, Washington, Idaho to Yellowstone. - Duane Lamers.

Prairie Tour - Bismark to Minneapolis.

PENNSYLVANIA One Day Tours:

Cedar Meadow Farms and Lancaster County - Compare soils in long term no-till with conventional, urban, and wooded soils in the Piedmont. Travel through Pennsylvania Dutch and Amish farms and

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visit a farm in the Pennsylvania Farmland Preservation program and observe the problems of Urban Sprawl and Farmland Preservation.

New Frontiers in Soil Survey- Travel to a modern MLRA Soil Survey office and view the technologies and methods being used to update soil surveys on a Land Resource Area basis. Demonstrations of GIS, NASIS, GPS, Stereo Analysis of Landforms and Soils, digital soil map updating, Spatial Analysis and other technologies. Field tours into Chester County include soil survey field data collection techniques including geophysical tools and comparisons of historic and modern soil survey maps.

Honey Hollow Watershed and Peddler's Village- Tour the first watershed based conservation planning and application within the USA and the conservation practices constructed in the 1930's at this National Historic Landmark. View the soils within the watershed the effects of conservation terraces, diversions and conservation systems on the soil properties. Then visit Peddler's Village, an 18th Century style attraction featuring 75 shops and restaurants.

Stroud Water Research Center and Soils of the Stroud Preserve - Tour the preeminent Stream and River research facility with internationally acclaimed pioneering research on watershed ecology and stream health. Observe the field studies and soils of the Stroud Preserve in the Pennsylvania Piedmont.

Longwood Gardens and Mushroom Farming- Tour the world's premier horticultural display garden and visit a Pennsylvania Mushroom farm and tour the facilities.

Rhodale Institute- Tour the Rhodale Institute and the Organic farming and Soil Research on the Rhodale Farm within the Ridge and Valley in Pennsylvania.

Smithsonian Soil Exhibit

Plans are well underway for a Soils Exhibit at the Smithsonian Natural History Museum. Let by Patrick Drohan and H.H. Cheng, plans were unveiled at the American Society of Agronomy meetings in November 2002 in Indianapolis, IN. The Soils exhibit space will be in the "Global Links- Forces of Change" area, between the

Hope Diamond and the IMAX theater with a potential of more than 6 million visitors a year. The Smithsonian is very excited and ready to start, a floor plan and schematic for the 6,000 square foot area has been developed, it is only a matter of funds to get the project started. Some funding has been provided by the Soil Science Society of America and the USDA-NRCS, but much more is needed to move the project forward. Additional information distributed at the ASA project meeting is included with this newsletter. "If we don't tell the story of the soil, who will."- H.H. Cheng. The 2003 Soil Planner will contain more information on the Smithsonian Soils Exhibit.

2003 PAPSS Consultants List

Applications for inclusion in the PAPSS 2003 Consultants List are due to Bruce Willman. Bruce can be contacted at bruce.p.willman@saic.com or by phone at 717-901-8838.

Soil Survey Horizons

Subscribe to Soil Survey Horizons, a professional newsletter designed to let soil scientists in the field communicate with each other. Rates are \$13.00 per year and Soil Survey Horizons is published quarterly. Subscribe online at: www.soils.org (in the periodical section of the Online Store, or by contacting the Soil Science Society of America, Attn: Soil Survey Horizons Subscriptions, 677 South Segoe Road, Madison, WI 53711-1086.

The U.S. Consortium of Soil Science Association

The goal of the Consortium are to promote communications between State societies and associations and to promote the visibility of soil science organizations, with an emphasis on outreach to the general public and elected decision makers. PAPSS is a Charter member. Visit the Consortium web site www.soilsassociations.org

Newsletter Articles

Material for the Pennsoil Newsletter can be submitted at any time to the President or any board member, or by email to pennsoils@aol.com

List of Current Materials in the Soil Survey Archive (October, 2002)

1. Field Operations of The Bureau of Soils, Fourth Report, 1902
2. Soil Erosion in Pennsylvania, 1938
3. Properties of Soils Which Influence Soil Erosion, 1930
4. Relative Infiltration and Related Physical Characteristics of Certain Soils, 1940
5. Method and Procedure of Soil Analysis Used in The Division of Soil Chemistry and Physics, 1930
6. Pennsylvania Soil Survey - Last Acre, 1987
7. Block Diagrams for Soil Survey Interpretations
8. Soil Blowing and Dust Storms, 1935
9. The Use of Land-Capability Maps for Rural Real Estate Assessments, 1949
10. Soil Testing, 1940
11. Reducing Soil Erosion Losses on Pennsylvania Farms, 1937
12. Conserving Farmlands, 1939
13. Rainfall Characteristics as related to Soil Erosion, 1939
14. Conservation Farming Practices and Flood Control, 1936
15. The Land in Flood Control, Pub. no. 331
16. Raindrops and Erosion, Circular No. 895, 1951
17. "Gullies" How to Control and Reclaim Them, Bulletin No. 1234, 1935
18. Farm Terracing, Bulletin No. 1669, 1932
19. Soil Conservation Survey Handbook, 1939
20. Topographic and Geologic Atlas of Pennsylvania, No. 96, Tyrone Quad., 1939
21. Soil and Water Use in The Soviet Union, 1959
22. Little Waters - Their Use and Relations to the Land, 1936
23. Soil Fertility Experiments on Volusia and Westmoreland Soils, 1928
24. Social Life in the Crooked Creek Area, 1937
25. Technical Manual - Aerial Photography, 1941
26. Inventory of Major Land Uses, Publication No. 663, 1948
27. Continuous Plant Cover - The Key to Soil and Water Conservation, 1953
28. Wildlife Management Through Soil Conservation on Farms in The Northeast, Bulletin No. 1868, 1941
29. Program - American Soil Survey Association and American Society of Agronomy, 1936
30. Land Use in Pennsylvania, 1935
31. Making Land Produce Useful Wildlife, Bulletin No. 2035, 1951
32. Silting of Reservoirs, Bulletin No. 524, 1936
33. Forests and Floods, Circular 19, 1928
34. Ground Water in South-Central Pennsylvania, Bulletin W-5, 1938
35. Rainfall Erosion Losses From Cropland East of the Rocky Mts., Ag Handbook 282, 1965
36. Problem Areas in Soil Conservation, Northeast Region, 1951
37. Method and Purpose of a Soil Survey, 1932
38. The Slotted Templet Method For Controlling Maps Made From Aerial Photographs, Pub. 404, 1940
39. PCA Soil Primer, 1950
40. Methods of Designating Colors, 1939
41. Economic Study of Farming in the Crooked Creek Area, Indiana and Armstrong Counties, 1938
42. Erosion and Related Land Use Conditions on the Crooked Creek Project Near Indiana, Pa., Erosion Survey No. 16, 1940
43. Erosion and Related Land Use Conditions on the Conestoga Area, Pa., Erosion Survey No. 15, 1940
44. Agricultural Geology, 1928
45. Munsell Color Book (for soils), 1954
46. Our Soils and Their Management, 1955
47. Water table Study for Selected Soils in Montgomery County
48. Soil Survey Manual, Ag. Handbook No. 18, 1951
49. Pennsylvania Geology and Mineral Resources, 1931
50. Conestoga and Pequea Watersheds-Soil Map and Legend
51. Guide for Soil Conservation Surveys, 1946
52. Topographic and Geologic Atlas, Lancaster Quad., No. 168, 1930
53. Classifying Land for Conservation Farming, Bulletin No. 1853, 1942
54. The Measure of Our Land, PA-128
55. Classification of Land According to It's Capability as a Basis for a Soil Conservation Program, 1949
56. Description of Pennsylvania Problem Areas in Soil Conservation, 1955
57. Soil Survey Centennial Planning Guide, 1999
58. Soil Survey Planning Guide, 1000
59. Soil Planning Guide, 2001

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60. Soil Planner, 2002
61. Guy Smith Discusses Soil Taxonomy, reprint
62. Soil Classification in The United States, second Printing, 1979
63. Soil Survey Division 2000 Program Plan, 2000
64. Soil Congress - Program, 1967
65. National Digital Orthophoto Program, 1998
66. Soils of the United States, 1909
67. Soil Classification - A Comprehensive System, 7th Approximation, 1960
68. Crawford County, Pa. Interim Soil Survey Report, Vol. II, Soil Maps
69. The classification of Land, Bulletin 421, 1940
70. Predicting Rainfall Erosion Losses, Ag Handbook 537, 1978
71. Pennsylvania Soil Survey History, Agronomy Series No. 142, 1998
72. Pennsylvania Soil Survey Biographies, Agronomy Series No. 143, 1999
73. Pennsylvania Soil Survey - The First 100 Years, Agronomy Series No. 144, 1999
74. General Soil Map of Pennsylvania (8 1/2 X 11 copy) 1914
75. Selected Papers in Soil Formation and Classification, 1967
76. Conquest of the Land Through 7,000 Years
77. Comparison of Laboratory and Field Methods of Determining Soil Texture Class, Agronomy Series 16, 1970
78. Soils of Northeastern United States, Bulletin 848, 1984
79. Field Percolation Rate of Pennsylvania Soils for Septic Tank Drainage Fields, Progress Report 345, 1975
80. Available Moisture Within Selected Pennsylvania Soils, 1968
81. Know Your Soil, Ag Inf. Bulletin No. 267, 1963, 1970
82. We Need to Know About Our Soil, 1969
83. Soil Series of the United States Including Puerto Rico and the Virgin Islands, 1990
84. Procedures for Collecting Soil Samples and Methods of Analysis for Soil Survey, 1984
85. Pennsylvania State Soil Survey and Natural Resources Inventory Plan of Operations, F.Y. 1993, 1992
86. Soil Survey Laboratory Data and Descriptions for Soils of Pennsylvania, Report No. 27, 1974
87. Rationale for Concepts in Soil Taxonomy - The Guy Smith Interviews, 1986
88. Keys to Soil Taxonomy, 1990
89. Keys to Soil Taxonomy, 1994
90. Keys to Soil Taxonomy, 1996
91. Geologic Map of York County, Bulletin C 67
92. Adams County Soil Survey, 1924
93. Armstrong County Soil Survey, 1939
94. Bedford County Soil Survey, 1911
95. Blair County Soil Survey, 1915
95. Bradford County Soil Survey, 1911
96. Bucks County Soil Survey, 1946
97. Cambria County Soil Survey, 1915
98. Centre County Soil Survey, 1907
99. Clearfield County Soil Survey, 1919
100. Crawford County Soil Survey, 1954
101. Erie County Soil Survey, 1910
102. Franklin County Soil Survey, 1938
103. Fulton County Soil Survey, 1947
104. Greene County Soil Survey, 1921
105. Huntingdon County Soil Survey, 1944
106. Indiana County County Soil Survey, 1931
107. Johnstown Area Soil Survey, 1907
108. Lancaster County Soil Survey, 1914
109. Lancaster Area Soil Survey 1900
110. Lebanon Area Soil Survey, 1901
111. Lehigh County Soil Survey, 1912
112. Lock Haven Soil Survey, 1903
113. Lycoming County Soil Survey, 1923
114. Mercer County Soil Survey, 1917
115. Montgomery County Soil Survey, 1905
116. Montour and Northumberland Counties Soil Survey, 1955
117. Reconnaissance Soil Survey, Northwestern Pennsylvania, 1908
118. Reconnaissance Soil Survey, Southwestern Pennsylvania, 1910
119. Reconnaissance Soil Survey, Northeastern Pennsylvania, 1911
120. Reconnaissance Soil Survey, Southeastern Pennsylvania, 1912
121. Tioga County Soil Survey, 1929
122. Union County Soil Survey, 1946
123. Washington County Soil Survey, 1910
124. Wayne County Soil Survey, 1938
125. Wyoming County Soil Survey, 1929
126. York County Soil Survey, 1912
127. Pennsylvania Association of Soil Scientists (PAPSS) 25th Anniversary Field Guide, 2000