# PENN









### PENNSYLVANIA ASSOCIATION OF PROFESSIONAL SOIL SCIENTISTS

VOLUME XVI, NO. 1

MAY 1992

### 1992 Officers and Board of Directors

President.	.Edgar A. White, Jr	(Board	1990-92)
Vice President			
Secretary			
Treasurer	Bruce P. Willman	(Board	1991-93)
Board Member	Mark S. Mills	(Board	1992-94)
Board Member	Robert J. Hawley	(Board	1990-92)
Board Member			

# PLEASE NOTE

# PAPSS 1992 SUMMER MEETING AND TECHNICAL SESSION June 12 & 13

To be hosted by Dr. L.R. Auchmoody and The U.S. Forest Service at the Penn Laurel Inn in Warren, Pennsylvania

### TECHNICAL SESSION TO HIGHLIGHT:

# SOILS AND GEOLOGY OF THE ALLEGHENY NATIONAL FOREST

Field Trip will provide the opportunity to compare several years of water table data with soil morphology.

Further details and registration forms are enclosed.

PLEASE REGISTER ON OR BEFORE JUNE 1, 1992.

## ASSOCIATION BUSINESS

# PLEASE NOTE:

PROPOSED AMENDMENTS AND CHANGES TO THE CONSTITUTION AND BYLAWS OF THE PENNSYLVANIA ASSOCIATION OF PROFESSIONAL SOIL SCIENTISTS WILL BE VOTED ON DURING THE JUNE 12, 1992, BUSINESS MEETING TO BE HELD IN CONJUNCTION WITH THE SUMMER TECHNICAL MEETING IN WARREN, PENNSYLVANIA .........

ALL THE MORE REASON TO PLAN TO ATTEND!!

The existing Constitution and Bylaws are printed below. The proposed changes follow.

The Pennsylvania Association of Professional Soil Scientists (PAPSS) is a nonprofit organization dedicated to foster the profession of soil classification, mapping, and interpretation and to increase further dissemination of information concerning soil science as it applies to the protection of the environment and general human welfare. The Association membership consists of professional soil scientists from the Agronomy Departments of the Pennsylvania State University and Delaware Valley College, the United States Department of Agriculture Soil Conservation Service, the Pennsylvania Department of Environmental Resources, private consulting firms, and county health and planning departments. PAPSS is affiliated with the American Registry of Certified Professionals in Agronomy, Corps and Soils.

Each member must pass a rigorous screening by the PAPSS Board of Directors. The minimum qualifications include a baccalaureate degree (usually a B.S.) with a minimum of two years of professional soil science experience in soil morphology, classification and interpretations.

Adopted March 22, 1975 Amended November 20, 1976 Amended October 3, 1981 Amended November 6, 1987

### CONSTITUTION

#### **PREAMBLE**

The identification of soil as a natural body and the intelligent use of this natural resource are obligations of the professional soil scientist. The Pennsylvania Association of Professional Soil Scientists is hereby dedicated to foster the profession of soil classification, mapping, and interpretations and to increase and further the dissemination of information concerning soil science as it contributes to the protection of the environment and the general human welfare.

### **ARTICLE 1 - NAME**

The name of this organization shall be the PENNSYLVANIA ASSOCIATION OF PROFESSIONAL SOIL SCIENTISTS.

### **ARTICLE II - PURPOSE**

The purposes of this Association are 1) to provide a forum for pedological information, 2) to encourage and enhance communication with other technical disciplines, and 3) to serve as a body of opinion on matters relating to soil classification and interpretations.

### ARTICLE III - HEADQUARTERS

The headquarters of the Association shall be determined by the Board of Directors, and shall be within the Commonwealth of Pennsylvania.

### **ARTICLE IV - MANAGEMENT**

The affairs of the Association shall be managed by the Board of Directors. The number of directors of the Board shall be fixed by the Bylaws.

### ARTICLE V - MEMBERSHIP

The Association shall have the classes of members as provided by the Bylaws.

### **ARTICLE VI - AMENDMENTS**

Amendments to the Constitution, proposed either by a majority vote of the Board of Directors or by petition of 25 percent of the Members, shall be made upon approval by a two-thirds vote of the Members. The voting may take place in either of two ways: 1) at a regular meeting by absentee or direct balloting, provided that printed notice of the proposed change was mailed to all Members with the call of the meeting; or 2) by mail ballot at any time, provided that 30 days notice of the proposed change has been mailed to all members.

### **ARTICLE VII - STATUS AND DISSOLUTION**

The PENNSYLVANIA ASSOCIATION OF PROFESSIONAL SOIL SCIENTISTS is a nonprofit organization without capital stock. This Association may be dissolved by a resolution requesting dissolution and approved by a majority vote of the Members. The voting shall take place in the manner listed in Article VI of the constitution. Upon dissolution, the Board of Directors shall pay all just debts of the Association from Association funds and transfer all remaining moneys and assets to the nonprofit organization named as the recipient in the dissolution resolution.

### **BYLAWS**

### ARTICLE 1 - EMBLEM

Section 1.0- The design, specification and guidelines for the use of the Association emblem shall be as prescribed by the Board of Directors.

#### ARTICLE II - MEMBERSHIP

Section 1.0- The Association shall have four classes of members. They shall be designated as Member, Apprentice Member, Associate Member, and Honorary Member. Apprentice Members, Associate Members and Honorary Members shall have all rights and privileges of membership except those of voting and holding office.

Section 2.0- Qualifications for the class of Members shall consist of:

- 1) Residency in the Commonwealth of Pennsylvania or in a neighboring state that does not have an organization providing the professional association available in PAPSS, and either:
- 2a) A full 4-year course of study in an accredited college or university leading to a bachelor's or higher degree with major study in soil science, or a related field of biological, physical or earth science plus 2 years of professional experience and approval by majority vote of the

- Board. The course of study must have included at least 30 semester hours of courses in biological, physical, and earth sciences, including at least 15 semester hours in soils, or
- 2b) A total of a least 30 semester hours in the biological, physical, and earth sciences, including 15 semester hours in soils; plus sufficient additional education or experience to total 4 years of education or 4 years of combined education and experience and approval by majority vote of the Board, or
- 2c) Six (6) years of professional experience and approval by majority vote of the Board.
- Section 2.1- Professional experience as used in Section 2.0 is defined as time devoted to soil classification, mapping or interpretations using the procedures of the National Cooperative Soil Survey or equivalent procedures.
- Section 3.0- Apprentice Member is an individual who meets the requirements listed in Section 2.0 except for professional experience, and is actively working to acquire this experience.
- Section 4.0- Associate Members are other individuals interested in the aims and objectives of the Association. This class of membership is obtained by nomination to the Board by a Member and approval by majority vote of the Board.
- Section 5.0- Honorary Members shall be elected by a two-thirds vote of the Members voting at a regular meeting.
- Section 6.0- Any individual may resign by failing to maintain current membership. Other resignations shall be in writing and be submitted to the Board.
- Section 7.0- Any individual who, after due investigation by a committee appointed by the Board is found guilty of unprofessional conduct may be admonished, suspended, or asked to resign or be expelled from the Association by a majority vote of the Board.

### **ARTICLE III - DUES AND FEES**

Section 1.0- Dues for Members, Apprentice Members, and Associate Members shall be set by the Board and approved by a majority vote of the Members present at a regular meeting. There shall be no dues for Honorary Members. Membership shall be from January 1 to December 31. Members, Apprentice Members, and Associate Members shall be considered delinquent if dues are not received by the Treasurer by March 1. Delinquent Members forfeit their voting privileges until their dues are paid. Early payment of dues will be encouraged by a discount of \$1.00 in all dues paid by December 31 of the preceding year. If dues are not received by May 1, membership will be canceled.

### **ARTICLE IV - MEETINGS**

- Section 1.0- The annual meeting of the PENNSYLVANIA ASSOCIATION OF PROFESSIONAL SOIL SCIENTISTS shall be held at a time, date, and place designated by the Board of Directors. The membership shall be notified of the date, time, and place of the annual meeting by the Secretary at least 30 days prior to the meeting.
- Section 2.0- Special meetings shall be called by majority vote of the Board or by petition to the Board by 25 percent of the Members. The membership shall be notified of the date, time, place, and purpose of the meeting by the Secretary at least 14 days in advance.
- Section 3.0- Except for amending the Constitution or Bylaws or for approval of a dissolution resolution, a quorum for conducting regular business at all meetings of the Association shall consist of the Members present.

### **ARTICLE V - MANAGEMENT**

Section 1.0- The Board of Directors is responsible for managing the Association affairs, and shall consist of seven Members. The Board of Directors shall be known as the Board. Term of office of Directors of the Board shall be 3 years and staggered such that the regular term of office of not more than three Directors shall terminate in any one year.

Section 2.0- Election of the Board Members shall be at the annual meeting. Terms of office shall begin January 1 of the following year. Any vacancies on the Board shall be filled by a majority vote of the remaining Board Members. The newly elected Board Member(s) shall serve out the remainder of the term of the directorship vacated.

Section 3.0- Any Member in good standing who has held membership in the Association for 1 year is eligible for election to the Board.

Section 4.0- Candidates for the Board shall be selected by a nominating committee consisting of the President, one Board Member appointed by the President, and one Member appointed by the President. Additional candidates may be nominated from the floor. A minimum of two candidates for each available Board vacancy will be nominated by the nominating committee. All nominees will be placed in nomination only with their consent. The election of Board Members shall be by majority vote of the Members present. If no candidate receives a majority vote on the first ballot, a second ballot will be taken to decide between the two candidates with the largest number of voices.

Section 5.0- Officers of the Association shall be President, Vice-President, Secretary, and Treasurer. The officers shall be nominated and elected from the board by Members of the Association following the election of the Board of Directors. The election of an officer shall be by a majority vote of the Members present. If no candidate receives a majority vote on the first ballot, a second ballot will be taken to decide between the two candidates with the largest number of votes. Term of office shall be 1 year. The President shall not serve more than two consecutive terms.

Section 6.0- The President shall be Chairman of Board. He shall be responsible for planning the program of the annual meeting, preside at the meetings, shall promote cooperation with other organizations with common aims, and perform such other duties as usually pertains to his office. The Vice-President shall perform the duties of the President in his absence and shall succeed to the presidency in case the office is vacated and shall serve out the remainder of the term vacated. The Secretary shall record the minutes and keep records of all meetings and transactions and will handle correspondence as necessary. The Treasurer shall collect all dues and fees. He shall be custodian of all funds belonging to the Association. The Board shall determine how funds are to be spent. Upon written statement of indebtedness, and approval by the President, the Treasurer may withdraw funds for the treasury for payment of financial obligations incurred by the Association. The Board will elect from the members of the Board a Vice-President, Secretary, or Treasurer to fill vacated unexpired terms of office.

### **ARTICLE VI - COMMITTEES**

Section 1.0- The President shall appoint committees as needed for tasks related to managing the affairs or furthering the objectives of the Association. Such appointments shall be on a year-to-year basis.

### ARTICLE VII - AMENDMENTS

Section 1.0- The Bylaws of the Association may be amended, added to, or repealed by a majority vote of the Members. The voting shall take place in the manner listed in Article VI of the Constitution.

### RULES OF ORDER

The rules contained in Roberts Rules of Order shall govern the Association in all cases to which they are applicable and in which they are not inconsistent with the Constitution or Bylaws of the Association.

### CODE OF ETHICS

To establish and maintain a high standard of integrity, skills, and practice in the Soil Scientist profession, the following shall be binding upon every Association Member.

### IN RELATIONS WITH THE PUBLIC, THE PROFESSIONAL SOIL SCIENTIST:

- \* Shall express an opinion on Soil Science subjects only when thoroughly informed and only when it is founded on adequate knowledge and honest conviction.
- \* Shall endeavor to extend public knowledge and appreciation of Soil Science and its achievements and to foster broader recognition of the need, use, and application in government and private business.
- \* Shall oppose and discourage any untrue, unsupported, and/or exaggerated statements regarding the profession.
- \* Shall not advertise work or accomplishments in a self-laudatory, exaggerated, or unduly conspicuous manner.

### IN RELATIONS WITH EMPLOYERS AND CLIENTS, THE PROFESSIONAL SOIL SCIENTIST:

- \* Shall advise employer or client to engage and cooperate with other experts and specialists whenever the employer's or client's interests would be best served by such service.
- \* Shall not accept compensation from more than one interested party for the same services pertaining to the same work without disclosure and consent of the interested parties.
- \* Shall act as a faithful agent and protect, to the fullest extent possible, the interest of employer or client insofar as such interest is consistent with professional obligations and ethics.
- \* Shall not disclose, directly or indirectly, information concerning the business affairs of employer or client in any way without consent.
- \* Shall not, as an employee of a governmental body, receive personal compensation with respect to services provided when representing employer.

### IN RELATIONS WITH EACH OTHER, THE PROFESSIONAL SOIL SCIENTIST:

- \* Shall refrain from undue criticism of the work of another professional in an attempt to injure the Soil Scientist's reputation.
- \* Shall freely give credit for work done and to whom the credit is properly due.
- \* Shall promote high quality standards among Soil Scientists and encourage the ethical dissemination of technical knowledge.
- \* Shall not compete unfairly with other professional Soil Scientists.
- \* Shall be candid and forthright in statements and responses to the Society or its representatives in matters pertaining to professional conduct.

### IN DUTY TO THE PROFESSION, THE PROFESSIONAL SOIL SCIENTIST:

- \* Shall foster good land use and environmental programs through the use of sound soil resource information.
- \* Shall accept personal responsibility for professional work performed.
- \* Shall not lend use of name in an enterprise of questionable nature.
- \* Shall strive to increase the competence and prestige of the Soil Scientist profession.

- \* Shall endeavor to increase the effectiveness of the profession by broadening education, through association with other professional organizations, and by other appropriate means.
- \* Shall keep abreast of current changes and developments in the field of Soil Scientist.
- \* Shall uphold this Code of Ethics by precept and example and encourage, by counsel and advice, other professional Soil Scientists to do the same.

# PROPOSED CHANGES/AMENDMENTS TO THE ABOVE FOLLOW

### REPORT OF THE PAPSS CONSTITUTION AND BYLAWS COMMITTEE - PROPOSED CHANGES -

(PREPARED BY COMMITTEE MEMBERS GARLAND LIPSCOMB AND LAUREL MUELLER, AND PRESENTED AT THE 1991 ANNUAL MEETING)

### **Constitution**

### Article II - Purpose

Add: " and 4) maintain professional standards in the application of soil science.

## **Bylaws**

## Article I - Membership

Section 1.0, add: ", or Board membership."

Section 2.0, delete: "1) Pennsylvania residency."

Change: 2a) to 1a), 2b to 1b, 2c) to 1c), and add:

- " 1d) ARCPACS certification as a Soil Scientist, Soil Specialist, or Soil Classifier."
  - 1e) Office of Personnel Management (OPM) "Soil Scientist" "GS" rating.
  - 1f) National Society of Consulting Soil Scientists (NSCSS) registration as a Soil Scientist."

## **Bylaws Changes Continued:**

NOTE: An additional class of membership is proposed as follows:

"Sustaining Member: Any class of membership that contributes dues of \$150.00 per year. Sustaining members will be listed in all newsletters."

Article III - Dues and FEES

Section 1.0, delete: "Early payment of dues....preceding year."

Article V - Management

Section 5.0, second sentence, add: "at the annual meeting."

Article VI - Committees

Section 2.0, add: "Standing Committees shall be:

Constitution and Bylaws - to propose changes in Constitution and Bylaws,

Program - meeting arrangements,

**Scholarship** - to recommend students for scholarships; prepare educational materials,

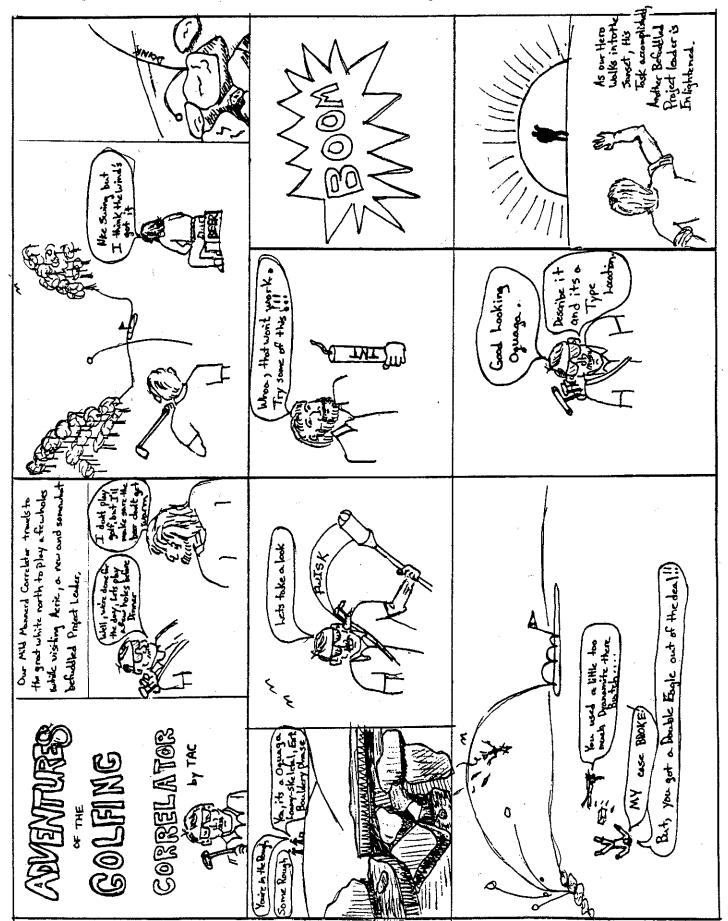
**Nominations** - to be comprised of the President, one Board member, and one member appointed by the President, (Article V, Section 4.0),

Editorial - to publish and disseminate newsletters and other pertinent information."

# PLEASE COME TO OUR JUNE BUSINESS MEETING PREPARED TO DISCUSS AND VOTE UPON THE PROPOSED CHANGES!!!!!

# INTRODUCING......CORRELATOR COMICS

(a publication of Solum Sillies) created by T.A.C.



NSCSS/PSSAC JOINT ANNUAL MEETING The National Society of Consulting Soil Scientists and the Professional Soil Scientist Association of California held a joint annual meeting at the Balboa Bay Club, Newport Beach, California on January 23-25, 1992. About 100 persons attended the conference including several exhibitors.

Speakers addressed a number of technical subjects and business issues. Dr. Robert Graham, University of California, described soil development in 41-year old lysimeters. Under oak trees, no visible soil development had occurred. However, under pine trees, the soil has developed an argillic horizon. Dr. Osborne discussed the construction of vertical flow cells containing sand versus created wetlands to reduce nitrogen in the groundwater for large septic systems.

Of special interest was the Saturday morning field trip to a river estuary and an altered tidal wetland. The river estuary is a major recreation area and the tidal wetland was partially dredged and filled for oil well development. All but 5 percent of the tidal and lower river estuaries in Southern California have been filled. The remaining wetlands are critical to the survival of endangered species. It was thought by many in attendance that the state of California and the federal government bend far more to the pressure of development in this area than on the eastern seaboard. (Submitted by Ken Stevens) (From Volume 16, Number 1, of the SSSSNE Spade & Auger Newsletter.)

**SOIL SURVEY HORIZONS** is your publication for the expression of ideas, potential solutions, and philosophies concerning the study of soils in the field. This professional journal is published quarterly for you by your peers and colleagues. Soil Survey Horizons needs not only your subscription, but also your manuscripts. If you are not receiving SSH, or if you haven't yet renewed, why not subscribe today? The rate for Volume 33, 1992, is \$12.00. Indicate renewal or new subscription and send your name, address and check to: Soil Survey Horizons, Soil Science Society of American, 677 South Segoe Road, Madison, WI, 53711.

1991 NORTHEAST SOIL JUDGING CONTEST On Saturday, October 20, 1991, the Northeast Soil Judging Contest took place at Delaware Valley College in Doylestown, Pennsylvania in scenic Bucks County. Thirty-eight students from the Universities of Maryland and Rhode Island, Penn State, Cornell, and Delaware Valley College participated in the event. The contest included two days of field preparation at various practice pits and lectures on the geology of Bucks County, a diverse region incorporating coastal plains sediments, reddish Triassic materials and resistant igneous diabase formations. Soils viewed during the competition included Alfisols, Ultisols, and Entisols formed in colluvium, residuum, loess, and skeletal terrace deposits adjacent to the Delaware River.

Taking top team honors were Penn State, Cornell and the University of Maryland, placing 1st through 4th out of a total of 10 teams. Rhode Island placed a respectable fifth for a bunch of folks who had never seen clay horizons. The weather was fabulous, as were the practice pits and associated lectures. Our hats go off to the folks at Delaware Valley College for making the trip so enjoyable for all who participated. (Submitted by Brian Lesinski, Soil Judging Coach, URI) (From Volume 16, Number 1, of the SSSSNE Spade & Auger Newsletter.)

**NEW ENGLAND SOILS MONITORING PROJECT (NESMP)** The NESMP was initiated to study the relationship between soil morphology, hydrology, and vegetation with particular emphasis on the transition zone between wetlands and non-wetlands. It is part of a national effort by SCS and the Corp of Engineers to study how morphology is affected by soil wetness and conversely can be used to predict seasonal soil moisture changes. Some 17 sites were sampled and described this past year. These sites have already been monitored for a number of years by the U.S. Geological Survey. This data is currently being statistically evaluated. In addition, at some 30 sites, monitoring of the water tables, soil matrix potentials, temperatures,

redox potentials, and other soil parameters has been initiated. Next year, these sites will be described and sampled in greater detail to enable statistical evaluation of the relationship between soil wetness and morphology. (Submitted by Peter Veneman) (From Volume 16, Number 1, of the SSSSNE Spade & Auger Newsletter.)

SWCS 1992 INTERNATIONAL MEETING IN BALTIMORE "Resource Management in a Dynamic World" is the theme for the Soil and Water Conservation Society's 47th Annual Meeting on August 9-12, 1992 in Baltimore, Maryland. The program will focus on how human resources and rapidly changing environments affect natural resources and their management. This year's meeting is well within a day's drive of southern New England. SWCS members will receive program and registration materials in April or early May.

1992 NORTHEASTERN FOREST SOILS CONFERENCE The Nova Scotia Department of Natural Resources extends an invitation to you to attend the 1992 Northeastern Forest Soils Conference, August 16-19 in Truro, Nova Scotia. We are tentatively planning to start the conference in Truro, Sunday evening, August 16th. On Monday, August 17th, we will travel to Cape Breton Island and return to Truro the evening of August 18th. An agenda. accommodations arrangements, and a registration form are being prepared. If you would like to attend or would like further information, please call or write to: Peter Neily, Forester, Nova Scotia Department of Natural Resources, P.O. Box 68, Truro, Nova Scotia, B2N 5B8. Phone (902) 893-5692. (From Volume 16, Number 1, of the SSSSNE Spade & Auger Newsletter.)

LAND RESOURCE REGION R, SOIL CORRELATION CONFERENCE The Soil Conservation Service has scheduled a regional soils conference to address a number of concerns important to mapping, correlating, and interpreting soils in the glaciated northeast. The geographic area covered by this conference is Land Resource Region R, which covers the six New England states and parts of New York, New Jersey, Pennsylvania and Ohio. This conference has been scheduled for July 27-31, 1992 and will be held at the University of New Hampshire, New England Center, in Durham, NH.

Some of the major issues that will be addressed during this conference include dense till versus fragipan, recognition of paralithic contact, series control section, temperature regimes, drainage class recognition, and others. This will be an intensive conference designed to resolve issues that will lead to standardization of mapping legends across county and state boundaries. The intent is to keep attendance to a minimum, to facilitate a manageable work group that can address the concerns and make definite recommendations that will lead to manageable resolutions. Those invited to attend include State Soil Scientists, State Correlators, one individual representing each state NSCSS operator, as well as representatives from SCS National Headquarters, National Soil Survey Center, and the National Technical Centers located in Chester, PA and Lincoln, NE.

A request for position statements will be sent out to each state in the near future. The statements will be compiled at the SCS state office in Durham, NH and forwarded to all conference participants prior to the conference date. Individuals or societies interested in expressing an opinion or recommendation concerning soil correlation issues are encouraged to draft a position statement and submit it to Steve Hundley, State Soil Scientist, SCS, Durham, NH. All position statements received will be taken into consideration and included in the packet of materials used by meeting participants in an effort to arrive at solutions. The deadline for submitting statements in May 15, 1992. If you have any questions in regard to this conference, please contact Steve Hundley at (603) 868-7581. (Submitted by Steve Hundley) (From Volume 16, Number 1, of the SSSSNE Spade & Auger Newsletter.)

# PAPSS TREASURER'S REPORT FOR 1992

# MARCH 23, 1992

Januar	y 1992 Beginning Balance		:	
	Checking Account	t	\$3,651.33	
•	Certificate of Deposit		<u>\$2,500.00</u>	
		Total -	\$6,151.33	
Expen	ses			
	Postal Service (post office box rental)		\$ 35.00	
	American Cancer Society Donation in Memory of Edward Richie		\$ 25.00	
r	Mailing Expenses - President, Ed White		\$ 0.00	
	- Legislative Committee, M.S. Mills	3	\$ 0.00	
	- Treasurer (Dues notices, membershi			
	lists and cards, R.E. Wright)	-	\$ 22.43	
	Pennsylvania Publication and Mailing Expenses		\$ 0.00	
	1992 Consultant's List - Design Revisions, Printing (1000 copies	)		
	- Mailing		\$ 471.40	
	Addition to Certificate of Deposit		\$2,500.00	
	1992 Field Trip/Meeting Expenses		\$ 0.00	
		Total -	\$3,053.83	
Incom	<u>e</u>			
	1992 Membership Dues (total to date - \$978.00)		\$ 299.00	
	1992 Application Fees		\$ 60.00	
	1992 PAPSS Consultant's List Fees (total to date - \$780.00)		\$ 100.00	
.5	1992 Interest from Certificate of Deposit		\$ 71.16	
	1992 Meetings	•	\$ 0.00	
		Total -	\$ 503.16	
Balanc	<u>ve</u>			
	Checking Account		\$1,127.66	
	Certificate of Deposit (6 months at 4.050%; matures 8/18/92)		\$5,000.00	
		Total	\$6,127.66	
			*	
		Respectfully Submitted,		
		•	4.4	

Bruce P. Willman, Treasurer

### PENN STATE NEWS

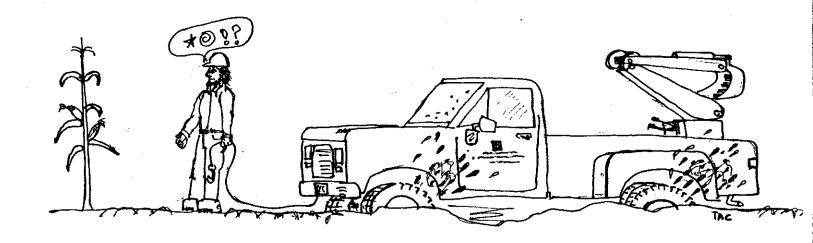
In December 1990, the Agronomy Department moved into a new building. The new building provides 1,500 square feet for the soil characterization-soil genesis laboratory and 1,600 square feet for the land analysis lab (GIS). In addition, many other faculty now have laboratory space that they did not have before. The new space will serve the department well for teaching and research well into the future.

The future for our department, like other similar departments, is uncertain. Pennsylvania's budget problems in 1991 led to an early retirement option for Penn State faculty. Joe Duich (turf), Bob Cunningham (soil survey), Leon Johnson (teaching; mineralogy), Joe Harrington (teaching; crops), Don Waddington (turf), Dale Baker (soil chemistry), Ray Shipp (soil survey), and Roger Pennock (teaching; soil survey) have retired in 1991. Of these positions, only two turf and one soil chemistry position will be filled. In addition, two staff support positions have been lost. Down-sizing is the mode of action at Penn State. One bright spot is that Bob Dobos' (Soil Characterization Lab Director) position has been retained and filled (January 1992) by Nelson Thurman. Nelson received his B.S. and M.S. in soils at West Virginia University with John Sencindiver acting as his M.S. advisor. After he received his M.S., Nelson worked for Dr. Sencindiver for four years and for Fairfax County, VA, as a soil scientist for an additional five years. Nelson is a native of Beckley, WV, and while at Penn State he also intends to pursue a Ph.D. degree. By the way, Bob Dobos is now working as a soil scientist (SCS-party chief) in SE Virginia (Southampton Co.).

The soil characterization laboratory is in the final phase of completing its soil characterization database system. Completion date is expected to be mid 1992. The system is PC based, uses Clipper compiled dBase language, and runs from DOS. It will take about 15 megabytes of disk space with the 801 pedons of Pennsylvania data and requires 640K RAM to run. The dBase date management system is not necessary to run the system; but if available, the files can also be easily managed with dBase. The system uses the SCS's pedon field forms and codes for the site and horizon data. The system is very user friendly; and it outputs the site, horizon, and laboratory data in a standard table format or in a file that is compatible with other programs (ASCII, dBase, 123, and minitab). Other output formats can be added as needed.

Grad student Jon Pollack and Ed Ciolkosz are working on a soil geomorphology project with the Pennsylvania Geological Survey. The objectives of the project are to use digital elevation model (DEM) data to map landform elements, e.g., summits, shoulderslopes, backslopes, etc., and to determine the type of soil and surficial material associated with these landform elements in the Piedmont of SE Pennsylvania. To date the research indicates that DEM's can be used to map various landform elements, and the Pennsylvania Piedmont has a complex pattern of soils that have been significantly affected by periglacial turbation and erosion during the last major glacial age (Woodfordian, 18,000 years ago). In addition these soils have had a significant amount (1-2 feet) of loess deposited on them. The loess is not present on all soils. It apparently was eroded as it was deposited or at some later time. The loess is believed to be Woodfordian age.

Ed Ciolkosz Penn State University An Ancient Philospher asks: " If a mighty oak falls in the forest and nobody is there to see or hear it fall, does the falling tree still make a sound?



Pondering this question, we also ask: "Do Soil Scientists make noise in the field?"

# SOIL INTERPRETATIONS STAFF NORTHEAST NATIONAL TECHNICAL CENTER CHESTER, PENNSYLVANIA

The Soil Interpretations Staff at the Northeast NTC (NNTC) has regional responsibilities for soil interpretations, Geographic Information System (GIS), and Natural Resources Inventory (NRI). The staff consists of 3 Soil Scientist, 2 GIS Specialists and 1 NRI Specialist.

The Soil Interpretations Staff and the National Soil Survey Center (NSSC) work closely together. The NSSC provides assistance to the states for all information needed during the course of a soil survey, including publication. The Soil Interpretations Staff at the NNTC provides assistance for the use of soil surveys and for soil interpretations. In addition we provide training and assistance for soil related software and database.

Some of the current programs that the Soil Interpretations Staff has been recently involved with are:

### State Soil Survey Database

The State Soil Survey Database (3SD) is software being used in all SCS state offices to help manage the soil survey program. All Northeast states have a designated Dataset Manager that is responsible for using 3SD and updating data. Important uses of 3SD include changing and correcting soils information and transferring soils information to the Computer Assisted Management and Planning Systems (CAMPS). The CAMPS software resides in most Field Offices.

Our role with 3SD is to assist NSSC to enhance the program. We also work with the Northeast states assisting dataset managers, training new dataset managers, and developing ways that the database can be updated.

### Field Office Computing System

SCS is in the process of replacing CAMPS with a new system called Field Office Computing System (FOCS). This software will have a completely new look from CAMPS. FOCS will be in all SCS Field Offices and will be a major user of soils information.

Lewis Daniels, soil scientist, will help test the soils program in FOCS. Chris Smith, soil scientist, will help develop the training material for the soils part of FOCS.

### Soil Interpretations

We have worked closely with the NSSC to review, or assist in the development of, interpretations. Some of the requests dealt with evaluating the Hydric Soils computer model, and developing algorithms for K and T factors.

The 1991 "Federal Manual for Identifying and Delineating Jurisdictional Wetlands"; Proposed Revisions, states that the user can use "regional indicators of significant soil saturation as developed by the Soil Conservation Service..." Chris and Lewis, along with the help of soil scientists from the Northeast, have developed Indicators of Significant Soil Saturation for the Northeast. There are currently being reviewed in the states.

### National Soils Information System

The National Soils Information System (NASIS) has been an ongoing project for the past three years. NASIS has reviewed, in detail, the soil survey process. Most of the analysis for NASIS is complete. The soil interpretations module is the first part of NASIS that is being prototyped.

During the analysis many decisions were made such as, more emphasis needs to be placed on field data, and all recorded physical properties of the soil will be in a relational database, including the official series description. The analysis has also identified that soil interpretations should be derived rather than stored. Computer generated interpretations, plus having soils data in a relational database, will help our interpretations be more accurate and consistent.

### <u>GIS</u>

STATSGO is a general soil map of a state that was compiled at a scale of 1:250,000. The maps of all states have been digitized. Each map unit has up to 21 components. The attribute data contains the SCS-SOI-5 information for each of the components.

The NTC has received all STATSGO data for the Northeast. In addition, we have a separate STATSGO database for the Chesapeake Bay watershed. The Chesapeake Bay STATSGO was recently used to develop a map that showed "hot" spots for potential erosion and water quality in the watershed. This project was done in conjunction with agronomists and economists. It provided extremely useful information plus displayed areas which could be used for targeting erosion and water quality resources. It also showed the importance of working with other disciplines when using GIS.

Karl Langlois Head, Soil Interpretations Staff

## A Buried Paleosol Near Mainsville, Franklin County, Pennsylvania

By: W.D Sevon Pennsylvania Geological Survey Harrisburg, Pennsylvania

A buried paleosol, exposed in 1991 at the Mainsville quarry of Valley Quarries, Inc., provides insight into the geologic history of the alluvial/colluvial materials which occur as an apron along the north and west margin of South Mountain in both Cumberland and Franklin counties, Pennsylvania.

The apron of sediment has the surface form of a series of coalescing fans each of which has its apex at the mouth of a small drainage basin eroded into the Cambrian clastic rocks of South Mountain. The surface of the apron is generally quite irregular and undrained depressions are common. Some of this irregularity results from post-depositional erosion, but much represents solution features which developed in the underlying Cambrian carbonate rocks and propogated upward through the apron since its deposition. Soils on the apron are mapped mainly as Laidig and Murrill.

The bulk of the material present in the Mainsville quarry comprises a diamicton: an unconsolidated, unsorted accumulation of material ranging in size from clay to boulders. Clay in the < 200 mesh (0.074 mm) fraction is reddish brown smectite. The clasts are almost entirely white and vary in degree of weathering from slightly to so thoroughly that they are loose sand. The clasts were derived primarily from the Mont Alto Member of the Harpers Formation. Most of the deposit is structureless, but some thin beds of washed sand and gravel occur locally. The bulk of the deposit appears to have formed by debris flow.

The upper part of the deposit is cut vertically in several places by clay-filled clastic dikes. The largest dike measures 18 m deep and 31 m long where exposed and is certainly larger if the total dimensions were known. The clastic dike is 1-1.5 m wide at the truncated top and narrows to about 10 cm wide at the base where it disappears into the quarry floor. The orientation changes from N68°W (top) to N57°W to N45°W (base) as measured on different benchs.

The clastic dike comprises predominantly laminated reddish brown smectite clay with scattered sand grains and occasional pebbles and cobbles comparable to those in the host diamicton. The laminae parallel the margins and the margins are relatively sharp with little or no apparent diffusion of clay into the surrounding host.

The uppermost 1.5 m of the dike is a paleosol in which the laminations have been totally destroyed by burrows and roots whose small holes riddle and homogenize the clay. The uppermost 1.5 m contains lots of sand, but almost no pebbles or cobbles. The margins are very diffuse into the surrounding host in which the paleosol is present but where it is not as strikingly obvious. The paleosol is truncated erosionally 22 cm above a clear Btb-BCb boundary which occurs at the top of 166 cm of BCb. The truncated paleosol is overlain by a meter of diamicton which has a modern soil.

The paleosol allows some interpretation about the age of the diamicton apron. The paleosol is certainly pre-Wisconsinan in age. Whether it developed during the Sangamon interglacial just prior to the Wisconsinan or during an earlier interglacial is unknown, but I favor the latter. The clastic dike probably formed as multi-stage filling in a frost crack developed in the diamicton during a glacial interval when the area may have had discontinuous permafrost to an unknown depth. because the most extensive known glaciation in eastern Pennsylvania was the pre-Illinoian and its associated periglacial conditions presumably would have been more severe in the South Mountain area than during later glaciations, I favor formation of the clastic dike at that time. This means that the host diamicton was deposited ever earlier, possibly during the Early Pleistocene, sufficiently long ago to account for the degree of weathering of the clasts and the solution features present on the apron surface.

The above is abstracted from pages 176-188 of the guidebook for the 56th Annual Field Conference of Pennsylvania Geologists which was held in Carlisle, PA September 26-28, 1991. For those who might not know, the Field Conference of Pennsylvania Geologists is organized for the purpose of examining the geology in different areas of the Commonwealth by means of its annual field trip. The Conference is attended by a wide range of professional geologists and some soil scientists. The Field Conference this year (October 1-3, 1992) will examine the geology of Warren County. Information about the Conference, which will be sent out in late July, can be requested from: Field Conference of Pennsylvania Geologists, Inc., P.O. Box 1124, Harrisburg, PA 17108.

# Remember Your Registration for the

Summer Meeting

is needed as soon as Possible!!!
(Preferably before June 1st)

We expect this meeting to be a very interesting and worthwhile session!!!

## In Memoriam

### Edward B. Richie

Edward B. Richie, CGWP, CPSS, or Wernersville, PA, died 28 October 1991 at the age of 34 after a battle with lymphoma. Richie was a senior project manager for LGI, a Division of Layne GeoSciences, Reading, PA.

He earned his B.S. in environmental resource management (1980) and his M.S. in environmental pollution control (1982) from

Pennsylvania State University.

Richie began his career as a research assistant with the USDA Northeast Watershed Research Center in Pennsylvania in 1981 and was a hydrologist and support scientist there from 1983 to 1987. In 1987, he received an award from the American Society of Agronomy acknowledging excellence in agricultural research.

From 1987 to 1990, Richie was a groundwater hydrologist/soil scientist for SMC Martin, in Pennsylvania. He

began working for LGI in 1990.

Richie served as a member of several professional societies including ASA, the National Water Well Association, and the Pennsylvania Association of Professional Soil Scientists. As a recognized research scientist, he was a contributing editor to the National Drillers Buyers Guide and had written over 21 publications pertaining to groundwater and contaminant studies.

An active member of the NWWA, Richie served on the committee to promote the CGWP program, as an auxiliary editor and book reviewer for the Journal of Ground Water, and was

nominated to run for the board of directors.

Richie is survived by his wife, Leslie, and children, Danny, 8, and Lauren, 5, as well as his parents. The family asks that any contributions please be made to the American Cancer Society, 1109 Union Blvd., Allentown, PA 18103, in his memory.



IF YOU HAVE ANY QUESTIONS OR COMMENTS REGARDING **PENNSOIL**, <u>OR</u> POSSIBLE ARTICLES...... PLEASE CONTACT MAL GILBERT AT 814-237-2102.

### **REGISTRATION FORM**

# PENNSYLVANIA ASSOCIATION OF PROFESSIONAL SOIL SCIENTISTS ANNUAL SUMMER MEETING AND FIELD TRIP

## "SOILS, SURFICIAL GEOLOGY, AND ECOLOGICAL LAND TYPES OF THE ALLEGHENY NATIONAL FOREST"

### PENN LAUREL INN - WARREN, PENNSYLVANIA JUNE 12 AND 13, 1992

This is the only announcement and notice to register for the summer PAPSS meeting to be held on June 12 and 13, 1992 at the Penn Laurel Inn in Warren, Pennsylvania.

Attendees are responsible for providing for their own meals (except for Friday lunch, which is provided) and lodging. Limited lodging (22 rooms) is available at the Penn Laurel Inn, at a special meeting rate of \$34.00 per night for a single room or \$41.00 per night for a double room. This rate includes a full breakfast. Additional rooms are available at the Holiday Inn in Warren at a rate of \$45.00 per night for a single or double room, breakfast not included. Attendees should arrange for lodging at either the Penn Laurel or the Holiday Inn by contacting:

Penn Laurel Inn 706 Pennsylvania Avenue West Warren, PA 16365 Attn: Sherry Hayes Telephone: 814-723-8300

Note: Request the meeting rate as a PAPSS meeting attendee.

There is a registration fee for this meeting and field trip of \$15.00 for PAPSS members and \$25.00 for non-members. This fee will include the refreshments and luncheon meal for the Friday sessions, and refreshments during the field trip on Saturday. To register, please complete and return this form along with the registration fee by June 1, 1992 to:

Dr. Richard Cronce R. E. Wright Associates, Inc. 3240 Schoolhouse Road Middletown, PA 17057 Telephone: 717-944-5501

Name:	Phone No.:
Association:	
Address:	

### 1992 PAPSS SUMMER MEETING

The PAPSS summer meeting will be held on June 12 and 13, 1992 at the Penn Laurel Inn in Warren, Pennsylvania. This summers meeting and field trip will be hosted by Dr. L. R. Auchmoody and the U. S. Forest Service.

The business meeting will be held from 10:00 a.m. to 12:00 p.m. on June 12, 1992. Discussion during the business meeting will include the proposed changes to the PAPSS bylaws as presented elsewhere in this issue of the Penn Soil newsletter. Lunch will be provided at the Penn Laurel Inn.

The technical session is scheduled from 1:00 p.m. to 4:30 p.m. on June 12, 1992. The technical session will include presentations on Soils of the Allegheny National Forest by Lew Auchmoody (U. S. Forest Service); Application of Geographic Information Systems in Forestry Management by Chuck Nielson (U. S. Forest Service); The Surficial Geology of the Allegheny National Forest by Bill Sevon (Pennsylvania Geological Survey); and Wetlands Permitting in the Allegheny National Forest by Mallory Gilbert (Wetlands Consultant).

The field trip is scheduled for 8:00 a.m. to 12:00 p.m. on Saturday, June 13, 1992. The field trip will be headed by Lew Auchmoody and will focus on ecological land types, soil-landscape relationships, and fluctuating water tables in the National Forest.

The New York State Pedologists and Association of Ohio Pedologists will be invited to attend and, as always, this years meeting will provide an opportunity for technical learning and professional interaction in an interesting and scenic area of Pennsylvania. A registration form is attached and, as indicated on the form, should be completed and returned to Dick Cronce at R. E. Wright Associates, Inc., by June 1, 1992.