



MAINE ASSOCIATION
OF PROFESSIONAL
SOIL SCIENTISTS

MAPSS NEWS LETTER

SEPTEMBER 1983

I. QUESTIONNAIRE RESULTS

In late March, a questionnaire was distributed to all present and recent members to attempt to gain a measure of your interest in our Association and to receive some feedback about last year's newsletters and January's Seminar and Annual Meeting, which hadn't been as well attended as was hoped.

It is probably not too surprising that only 14 questionnaires were returned, mostly from long-time members. However, I am told that a 30% reply rate for questionnaires is nothing to be ashamed of.

The overall sense I get from reading the responses, and from direct comments you've made to us, is that you've been very pleased with what we've been doing. One voice called for more meetings and newsletters/year; another was critical of the shift from the former ACSS to MAPSS with the latter's "diluted" inclusion on non-soil scientists. I for one welcome and encourage colleagues in closely related fields to join us so that we can have the opportunity to learn from each other. From the results of the question regarding seminar subject matter priorities, I have concluded that an agenda, nearly, if not totally within the umbrella of soil science will best satisfy your stated interests this winter.

Summarizing the results by category of seminar subject matter, interest was strongest in the area of "land application of septage and solid wastes" followed closely by "subsurface waste disposal and subdivisions" and "soil survey and classification". Considerable interest was also expressed in "erosion and sedimentation" and in "review of research in soil science in Maine and the Northeast". The remaining categories of "legislation as it relates to soil science", "forest soil research" and "agronomy research" trailed in that order. The first three categories were the overwhelming favorites, and this winter's seminar will certainly reflect these inputs.

Finally, as to meeting location and scheduling, a majority preferred Bangor over Augusta. Most prefer a weekday in January, so I am selecting January 26, 1984 . . . 8:45-4:00 . . ., so that there will be time for a little more interaction than has marked recent meetings along with about 7 speakers and a brief business meeting. Some exciting ideas as to individual speakers have been suggested - more to come in December. In the meantime, mark down the date in your calendar!

Ralph S. Baker
President

II. REPEAT OFFER - Soil Survey and Taxonomy Reference Materials

As last year, we again offer to make available, at cost, updated sets of the following items which are indispensable to anyone engaged in the practice of soil science in Maine:

- A. Set of "Established Series" sheets for Maine
- B. Set of "Soil Interpretation Record" sheets for Maine



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- C. Set of SCS Soil Survey Manual (those chapters which are published so far, 1979-83)
- D. For those who received materials last year, we'll make supplements available of A, B and C above.

This time we must ask that anyone interested contact R. Baker (326-4254) or Star Route Box 24, Penobscot, Maine 04476, indicating which materials he is interested in. Once the number of orders is known, it will be possible to inform you as to costs. For those who need a rough idea, A will probably be approximately \$11.00, B- \$9.00, C- \$11.00 and a complete supplement \$7.50. These are necessarily rough estimates since the availability of copying at rock bottom prices from SSRI at UMO is up in the air. Also, we are constantly receiving new materials since SCS makes them available to MAPSS as a courtesy. Note: Chapter 4 of the new Soil Survey Manual entitled "Examination and Description of Soils in the Field" is an invaluable reference!

III. NATIONAL COOPERATIVE SOIL SURVEY NEWS ITEMS - J. Ferwerda

Ralph S. Baker, Associate
Star Route, Box 24
Penobscot, Maine 04476

National Cooperative Soil Survey News Items:

1. The Soil Conservation Service has hired three additional soil scientists. They are Janet Engle, Ray Houston and Ron Olson. Janet Engle and Ray Houston are assigned to the soil survey party at Dover-Foxcroft and will work on the "Big Woods" soil survey. Janet is a forestry graduate, University of Maine, and comes from New Jersey. Ray is a graduate of the University of Idaho and comes from Idaho. Ron also is headquartered at Presque Isle and has completed work for a MS degree at Michigan State. Ron is scheduled to do basic soil service work in Aroostook County and help with mapping in the "Big Woods" survey.
2. Six soil scientists from Florida have completed working in Maine for the summer on an exchange agreement between Maine and Florida. Three of the Florida soil scientists were stationed in South Paris and worked on the Oxford County Soil Survey. The other three were at Ellsworth and worked on the Hancock County Soil Survey. During the 1983-84 winter season, Maine will reciprocate by detailing six soil scientists to map soils in Florida for the winter.
3. Vickie Tiblete has joined the SCS State Office Soils Staff as a Cartographer. She will be doing the map finishing for Knox-Lincoln Counties Soil Survey.

J. A. Ferwerda
State Soil Scientist



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IV. Congratulations to "Doc" Roland Struchtemeyer on his retirement from the University of Maine at Orono in June. We are looking forward to Doc's continuing contributions to MAPSS.

Contratulations are also due to Dr. Ivan Fernandez on his return to Maine to take over where Doc left off, as he assumes his post as Associate Professor of Forest Soils, UMO. WELCOME BACK!

V. The following is a list of the current membership of the Maine State Board of Certification for Geologists and Soil Scientists: Barry Timson, Chairman; Walter Anderson, Geologist; Paul Beers, Soil Scientist; Dwight Verrill, Soil Scientist; Walter Grant, Soil Scientist; Jackie Cohen, Public; and the position held by Geologist, Stephen Norton, is vacant at this time.

In perusing our library shelves, several outstanding references beg for your attention: (please excuse if the citations aren't up to thesis form)

1. Elliot, L.F. and F.J. Stevenson, Eds. 1977 Soils for Management of Organic Wastes and Waste Waters, American Society of Agronomy/Soil Science Society of America, Madison, WI 53711 (677 South Segoe Rd). Includes chapters on site selection and design for utilization and disposal of organic wastes.
2. Noble, George 1976 Sanitary Landfill Design Handbook, Technomic Publishing Co., 265 Post Road W., Westport, CT 06880. Includes chapter on site selection.
3. Hartung, R. and J. Kress 1977 Woodlands of the Northeast: Erosion and Sediment Control Guides, USDA-SCS Northeast Technical Service Center, Broomall, PA.
4. Soil Conservation Society of America, Southern New England Chapter 1978 Recommendations for Erosion and Sediment Control During Land Use Change. C. E. Maguire, Inc., Waltham, MA.
5. SCS-USDA 1975 Urban Hydrology for Small Watersheds, Technical Release No. 55. Includes appendix giving soil series and hydrologic soil groups.
6. Otis, Boyle, Clements & Schmidt 1980 Design Manual & Onsite Wastewater Treatment and Disposal Systems, US-EPA Office of Research and Development, Municipal Environmental Research Laboratory, Cincinnati, OH 45268.
7. Small Scale Waste Management Project 1978 Management of Small Waste Flows, US-EPA, Municipal Environmental Research Laboratory, Cincinnati, OH 45268.

This is the compendium of Univ. Wisc. research upon which, I believe, the above Design Manual was based. Don Hoxie may still have copies on sale at Div. of Health Engineering, Augusta.



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No doubt each of you could add to the list. PLEASE DO! How about some contributions of any kind to the next newsletter.

VI. SOIL UTILIZATION FOR SUBSURFACE WASTEWATER DISPOSAL AND LAND USE TRENDS IN MAINE

Health Engineering is responsible for administering the Subsurface Wastewater Disposal Rules in Maine. Health Engineering licenses Soil Evaluators who site and design septic leach fields, and also control the permitting of disposal systems installed within all municipalities and unorganized territories within Maine.

A site evaluation and design are required prior to obtaining a permit to install a septic system. Health Engineering has been recording soil data, disposal system designs, along with other information for each permit issued in Maine.

Health Engineering is in the process of establishing a data bank of every disposal system permitted in Maine in order to statistically evaluate:

1. How many new systems are being installed? How many replacement systems?
2. What is the life expectancy of a leachfield? Is there any correlation between system design size, soil type, soil drainage, to life expectancy?
3. Where are systems being sited with regard to soil types? How much wastewater is being disposed of on stratified drift sediments (potential groundwater aquifers) glacial till soils, marine and lacustrine sediments?
4. Where are systems being sited with regard to soil drainage? How much wastewater is being disposed of on well drained, moderately well, poorly, very poorly drained soils?

Health Engineering expects that meaningful statistics could be available by 1984 to show land use trends.

II. MAPSS REPRESENTED AT SOILS WORKSHOP

The Knox County S.W.C.D. held its annual soils workshop at the Camden Hills State Park. Over 100 eighth grade students had an opportunity to view soils in 4 test pits and learn about soils and soil survey programs in Maine. Soil Conservation Service representatives, Dick Howard and Bob Joslin, manned two pits; and Paul Beers from the Maine Soil and Water Conservation Commission manned a third. Ken Gardner, representing M.A.P.S.S. volunteered to provide his assistance in manning the fourth pit. The student showed a great deal of interest in soils and asked quite a few good questions. Workshops such as this provide an excellent opportunity for students to learn about soils and conservation of our soil and water resources.



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VIII. ITEMS OF INTEREST

The spring of '83 was the wettest spring in 25 years. The Portland, Maine area received 16 inches of rain in March and April. My personal observations of the soils in the area certainly confirmed that it was indeed a very wet spring.

I observed many loamy glacial till soils with an impervious layer within 40 inches. These soils were mottled at 24-36 inches, yet had saturated soil profiles. There was water standing in the profiles at 12-24 inches for 7-14 days. These soils were on slopes of 0-8%. The soils on slopes of 8-25%, which had small watersheds, had a much shorter period of solum saturation.

The shallow to bedrock soils also exhibited a saturation period of 7-14 days. Again, these soils were on slopes of 0-8% or in small depressions.

On the other side of the spectrum, I observed an outwash sand on a 10% slope on the 20th of April and found no free water in the soil profile. The test pit was to a depth of 56 inches. The profile was heavily mottled throughout, except for the 12 inch plow layer. This soil was on a very short watershed. The soil on the uphill landscape consisted of moderately well drained and excessively well drained outwash sand and gravel.

It appears that a soil can be at field capacity for 2-3 weeks, periodically, without mottling being formed.

Ken Gardner
Soil Scientist



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X. MEMBERSHIP

- | | |
|------------------------------|---|
| Allen, Ray - (Assoc.) | Soil Consultant |
| Allen, Tony - (Assoc.) | Soil Testing Lab, UMO |
| Angell, Glen - (Assoc.) | Forester, Land Use Regulation Commission |
| Babine, Richard - (Assoc.) | Soil Consultant - Self Employed |
| Baker, Ralph | Consulting Soil Scientist - Self Employed |
| Beers, Paul | Soil Scientist, Soil & Water Conservation Comm. |
| Black, Robert - (Assoc.) | Consulting Soil Scientist |
| Bourgoin, Terry - (Assoc.) | Potato Specialist, Extension Service |
| Britton, Wayne | Soil Consultant, Jordan-Gorill |
| Brown, Darryl | Consulting Soil Scientist, Main-Land |
| Clark, Donald | Soil Scientist, S.C.S., Ellsworth |
| Cotton, Kenneth - (Assoc.) | Soil Consultant |
| Faust, Albert | Soil Scientist - Self Employed |
| Fernandez, Ivan - (Assoc.) | Research Soil Scientist, New York City |
| Ferwerda, John | State Soil Scientist-Soil Conservation Service |
| Filauro, Anthony | Soil Scientist and Forester, Gr.Northern Paper |
| Frick, Albert | Soil Scientist, Health Engineering |
| Gardner, Kenneth | Soil Scientist, Main-Land |
| Georgitis, Stuart - (Assoc.) | Doctoral Student, Montana State University |
| Gerber, Robert | Consulting Geologist - Self Employed |
| Glenn, Rollin | Agronomy Professor, UMO |
| Goodwin, Stephen | <u>Soil Consultant</u> |
| Grant, Walter | Soil Scientist, USDA Research Laboratory |
| Hamilton, Stephen - (Assoc.) | Soil Consultant, Main-Land |
| Hersey, William | Consulting Soil Scientist - Self Employed |
| Hutchinson, Frederick, PhD. | Exec.Dir., Board of International Food and
Agricultural Devel., UD Dept. of State,
Washington, D.C. |
| Kelley, Stephen | Consulting Soil Scientist, Wright-Pierce |
| LaFlamme, Kenneth | Soil Scientist, S.C.S. |
| Long, Larry | State Resource Conservationist, S.C.S., Orono |
| Marcotte, Norman - (Assoc.) | Environmental Service Specialist, D.E.P. |
| McEwen, Bryce | District Conservationist, S.C.S. |
| Moreau, Eugene - (Assoc.) | Engineer, Health Engineering |
| Mosher, Dale | Consulting Soil Scientist |
| Murphy, Hugh | Professor of Agronomy, UMO |
| Ott, Allan - (Assoc.) | Research Assistant, UMO |
| Pellerin, Ted - (Assoc.) | Soil Consultant - Self Employed |
| Perkins, Gregory - (Assoc.) | |
| Perry, Stanley - (Assoc.) | |
| Saviello, Thomas | Soil Scientist, International Paper Co. |
| Sledjeski, William | Consulting Soil Scientist |
| Struchtemeyer, Roland | Soil Scientist, Professor of Soils, UMO |
| Verrill, D. Bruce | Consulting Soil Scientist - Self Employed |
| Willey, R. B. | Consulting Soil Scientist - Self Employed |
| Whitney, Bruce | Consulting Soil Scientist - Self Employed |

44 Members

(16 Assoc. Members and 28 Full Members)

Your 1983 Dues: Full Membership - \$10 Have Not Been Paid
 Assoc.Membership - \$ 5 Have Been Paid

Please forward your dues as soon as possible to:

Kenneth Gardner, Sec/Treas.
 Maine Association of Professional Soil Scientists
 RFD #1, Box 727, Limerick, Maine 04048



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XI. MEMBERSHIP APPLICATION (Please forward to interested person)

Name _____ Cert. Soil Scientist YES # _____

Add: _____ NO

Affiliation: Private Consultant _____
(Check One) University _____
Soil Conservation Service _____
State Government _____
Other _____

Employer: _____ Title _____

_____ I am not a Certified Soil Scientist but I am interest in becoming an associate member of M.A.P.S.S. Enclosed please find a check for \$5.00 for membership fee for '83.

_____ I am a Certified Soil Scientist and am interested in becoming a full member of M.A.P.S.S. Enclosed please find a check for \$10.00 for membership fee for '83.

Return to: Kenneth Gardner, Sec/Treas.
Maine Association of Professional Soil Scientists
RFD #1, Box 727
Limerick, Maine 04048