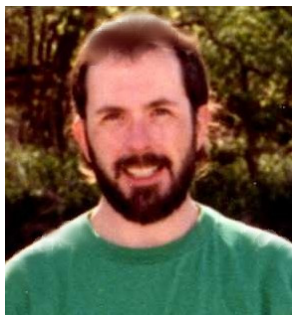


# Ohio Pedologist

<http://www3.uakron.edu/geology/aop/>

## President's Message

It looks like the first wave of soil scientist retirements is upon us. Several AOP members have retired recently or are going to retire in the near future. A substantial number of our members will be eligible for retirement within the next 5 years. Hopefully, they won't retire from AOP.



**The Prez**

Our Association is a great group (not intended as a pun, but I'll take credit for it) of agency, educational, and private employees. A group that, from what I've seen, always works well together. Though I'm still not sure if I was elected properly as a federal representative in 1990, when I believe I was still an affiliate member.

I think we can envision a great future for AOP, if at the same time we're also worrying about the future of our current employers. It seems there has always been a shortage of soil scientists, both public and private. Upcoming regulations and rules might mean even more work for us. Working together, I think we can ensure that the people of Ohio have access to the best soils information available.

It has been an honor to serve as your president this past year. I've enjoyed every minute of it. I appreciate all the help and hard work of the executive council, committee chairpersons and members, and all AOP members. Thank you.

And don't forget to send in your applications for certification!

*Jeff Glanville*

## Big Changes for Annual Winter Meeting

This winter's annual meeting and banquet will be held on January 23, 2003. In years past our winter meeting was held in conjunction with the winter meetings of either the SWCS or the Federation, but that did not work out this time. Their meetings were either at the wrong time (March) or in the wrong location (downtown Columbus) to be attractive to the Executive Council; so a change of plan has been approved.

Our meeting and banquet will be held at the Battelle-Darby Creek Metro Park's Cedar Ridge Lodge. This Columbus Metro Park is located in western Franklin County and is very easy to find. A map and directions to the lodge are located elsewhere in this newsletter, but basically the lodge is located five mile west of I-270 on West Broad Street, then three miles south on Darby Creek Road. The lodge has a large fireplace and is located in the woods in a very rustic setting. I'm sure everyone will enjoy this site.

The meal will be catered by "Made from Scratch", a well known and highly recommended local caterer, and will be buffet style. Herb crusted sliced top round of beef and sliced turkey are the entrees. The folks at ODNR in Columbus say the food is to die for.

Jean Caudill, RS from the Ohio Department of Health will be our featured speaker. Jean's topic will be "The future of soil investigations and on-site septic systems." This is a very important topic for many of us now, and will become very important to the rest of us in just a few years.

Other meeting agenda items this winter include reports from committee chairs; an update from the Certification Board on their activities this year; election of the 2003 Executive Council; and presentation of awards. If you haven't sent in your award nominations yet, please do so quickly.

Mark your calendar and hold January 23, 2003 for the winter meeting and banquet. Make sure you don't forget your appetite because we'll be eatin' at noon.

Dan Lemaster  
President Elect

## Inside this issue:

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## 2002 Directory of Officers

*Jeff Glanville, President*  
*Dan Lemaster, President-elect*  
*Frank Gibbs, Past President*  
*Kathy Sasowsky, Secretary*  
*George Derringer, Treasurer*  
*Steve Miller, Newsletter editor*  
*Tom Zimmerman, Academic Rep.*  
*Jon Reedstrom, Federal Rep.*  
*Bill Brug, Private Rep.*  
*Steve Prebonick, State Rep.*

# Association News

## Calendar of Events

January 23, 2003—AOP Winter Meeting  
March 25, 2003—Sanitarian Midwest Workshop

### Reminder for Members Interested in Certification

The application deadline for AOP certification under the grandfather clause is December 31, 2002. Current AOP members who were listed as a Soils Professional or a Pedologist on December 31, 2001 are eligible to take advantage of this clause.

Members listed as Pedologists are likely to meet qualifications for certification after the deadline but will not be able to use the streamlined application form. Also, official transcripts will be required for applicants after December 31, as proof of 15 semester hours or 23 quarter hours of course work in soil science. Members listed as Soils Professionals may not meet the field experience qualification for certification unless they are grandfathered in before the deadline.

The Certification Board will meet on January 4 to act on all applications submitted before the deadline. An application form can be printed out from the AOP website at <http://www3.uakron.edu/geology/aop/#resource>.

### New Members

Alex Dado—Upgrade to Soils Professional  
Khandakar R. Islam—Soils Professional  
Michael S. Demyan—Student Member  
Gretta B. Luedeke—Affiliate Member  
Clark K. harshbarger—Affiliate Member

Congratulations and Welcome!

### Soil Survey Horizons

There were two articles recently published in the Soil Survey Horizons that may be of interest to Ohio soil scientists. The first article, submitted by Tim Gerber, commemorates the 50th anniversary of ODNR's Soil Program and describes the history and development of the program. The second article about how Indiana passed legislation for registering soil scientist.

## Retirements

We all realize one advantage of having careers within the natural resources realm is the exceptional qualities of our co-workers. Men and women who choose these occupations are characteristically 'good' people. Friendliness, honesty, and a good work ethic are their trademarks.

The year 2002 has seen the retirement of five of these exceptional individuals. All who have had the pleasure of working with them over the years must feel a certain sadness as they walk out the office door for the last time. We lose both the camaraderie enjoyed and the professional experience relied on as we worked through each day. At the same time we congratulate them on their accomplishments and wish them the best in whatever pursuits lie ahead.

All five of their careers have been with the Ohio Department of Natural Resources.

Mark Feusner has helped author several surveys including Tuscarawus, Scioto, Lawrence, Gallia, Paulding, Hancock, Allen, and Wood Counties. Mark has been in northwest Ohio since 1988. Known as a true professional, knowledgeable in all aspects of soil survey work, he has demonstrated his ability on many occasions.

Mark and his wife plan to stay in the Findlay area for a short while and eventually plan to relocate to central Ohio or Florida. Everyone will miss his positive attitude and sunny disposition!!

Terry Lucht started in Logan County then worked in Jackson, Athens, Adams, Auglaize, Brown, Preble, Ross, and Clinton Counties. Terry took pride in and is well known for the quality of his cartographic work. He is also known for always finishing a project on or ahead of schedule. He mapped 360,137 once over acres and 295,895 acres on 3 updates for a total of over 656,000 acres!

Terry is considering working with soil and water districts. In his spare time motorcycles and woodworking will take precedent. He might even finally have time for some crossword puzzle work.

Linn Roth started in Trumbull County then worked in Geauga, Tuscarawus, Noble, Jefferson, Harrison, and Columbiana Counties. Linn is now employed by Draft-Co working on the SDSI project. Those who know Linn will miss the lies about his hunting and fishing trips.

Linn and his wife are in the process of building a country estate on 55 acres east of New Philadelphia.

Larry Tornes started in Preble County, was an area soil scientist in Wapakoneta, Ohio, and then spent ten years in New York State before coming back to Ohio as the Assistant State Soil Scientist. He was then appointed State Soil Scientist in Michigan where he retired from federal service. He then was employed by the State of Ohio as a Soils Information Coordinator.

(Continued on page 6)



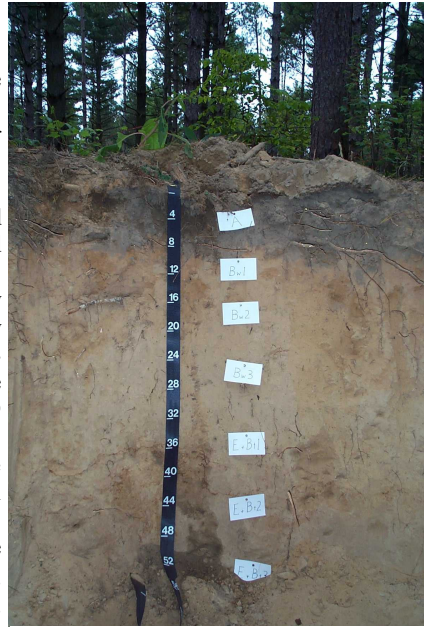
# Forest Soils Workshop a Huge Success

The 22<sup>nd</sup> annual Central States Forest Soils Workshop was held October 15-17 in northwest Ohio. Over 130 registered participants saw a variety of soils and land uses.

After registering Tuesday afternoon, we were given an introduction to northwest Ohio by some excellent presenters. Much of northwest Ohio is in what was known as the Great Black Swamp, referring to the conditions before drainage carried away much of the surface water. This area is the former lakebed of Lake Erie, when glacial ice blocked drainage to the east. The land is generally very flat. Dunes, beach ridges, and other sandy deposits are on higher parts of the landscape.

The heavy textured soils on this flat landscape were generally poorly drained. Starting around 1850, agricultural drainage and ditches provided a means to remove excess water and grow crops, and the forest was gradually cleared. Today, only a few small forests remain.

Maumee State Forest was the first stop Wednesday morning. Maumee State Forest is the only state forest in northwest Ohio. It is located in the Oak Openings region, which is basically a big sandy area. Soil series in the forest are dominantly Ottokee, Tedrow, and Granby. Here we saw a 50-year-old pine plantation being thinned by low impact equipment. Lab data from the Spinks soils pit here showed fine sand textures from the surface to 60 inches, with clay contents ranging from 1.5 to 3.9 percent.



Profile of Spinks fine sand, Maumee State Forest.

The next stop was the Lange tree farm. Soil series on this farm are dominantly Ottokee, Spinks, and Granby. Species planted since 1972 include red oak, white oak, Eastern white pine, black walnut, and baldcypress. A windbreak was planted through the Northwest Ohio Field Windbreak Program,

with Eastern white pine, American arborvitae, and Norway spruce. Lab data from the Granby soils pit here showed loamy fine sand textures from the surface to 60 inches, with clay contents ranging from 3.9 to 5.7 percent.

After lunch, we saw a riparian buffer installed through the Conservation Reserve Enhancement Program, and a field windbreak in the adjacent field. Dave Berna, retired Ohio NRCS forester, discussed the benefits of field windbreaks.

The Wednesday afternoon field stop was at the Ridgeville Corners wastewater site. This community in Henry County uses irrigation as a tertiary treatment of wastewater. 26 acres of newly planted trees are irrigated, as well as 7 acres of existing

Mark Feusner, Soil Scientist, Ohio Department of Natural Resources, discusses soil properties and forestry interpretations at the Granby soil pit, Lange Tree Farm.

forest. This project was a multi-agency effort, with materials or assistance provided by Maumee State Forest, NRCS Maumee Valley Resource Conservation and Development, the National Tree Trust, and several local Soil and Water Conservation districts. Most of this area is on Fulton soils. Lab data from the soils pits here showed dominantly clay textures in the Bt horizons, with clay contents around 65 percent.

The final forest soils field stop was Thursday morning, at Goll Woods State Nature Preserve. Goll Woods is an old growth forest, where a variety of site conditions enable different forest communities to exist. Here we saw a soil monolith of Lenawee silty clay loam, and we saw the big bur oaks while walking on the nature trail.

We received a fine guided tour through the Sauder Manufacturing plant in Archbold. Sauder makes a variety of residential and institutional furniture. Church pews appeared to be the main product of this particular plant.

This was an outstanding workshop. The food was good, the weather was decent, and the program and presenters were excellent. Thanks again to all that participated.



Greg Maxfield, Forester, Ohio Department of Natural Resources, at Lange Tree Farm.



Tom Collins, Service Forester, Ohio Department of Natural Resources, discusses management at the Ridgeville Corners wastewater treatment facility.

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# Ethics, Professionalism, and Private Sewage Treatment Systems (PSTS)

submitted by Ray Herbst

The most recent issue of OHIO PEDOLOGIST (Fall 2002) was spared from my circular file for more than four minutes from the time my eyes initially graced the newsletter. Why? Because I can't help but respond to Tim Gerber's article on "Professionalism".

As a nationally registered environmental health specialist working for a local health department (LHD) in Ohio in a private sewage program (PSP), I am an affiliate member of the AOP because I want to know where soil professionals in Ohio are headed and I also desire to be an AOP certified soils professional. Time and money do not permit me at present to take the ten additional semester hours of college coursework in soils which would enable me to apply for the soils professional certification.

I said that to say this. There are gaps that need to be bridged between soils professionals/pedologists and registered sanitarians/environmental health specialists. When I started with a LHD in 1989, I began learning soil morphology as part of my job in performing site evaluations for new and replacement PSTS's. As time progressed, if I had questions, I had other soils trained sanitarians and soils professionals that I could contact for input. Two health departments that were integral in my early training did not farm-out field work to pedologists because the soil morphology training and investigatory work were done in-house by trained sanitarians.

Over time, like everyone, I have formulated an opinion regarding how LHD PSPs should be operated. Ultimately, I believe that every sanitarian in a LHD PSP should be thoroughly trained in soil morphology/classification/identification according to ASTM standards. (I CAN hear the grinding of teeth of ARCPACS certified pedologists). Frankly, in a LHD PSP, it does not matter if a soil is identified as being a Russell or a Xenia, a Mahoning or an Ellsworth. As we know, there are inclusions in each of these soil types, and what matters are the precise soil texture, structure and redoximorphic characteristics and topographic measurements over an entire piece of pertinent ground that may be selected by the property owner for an on-lot PSTS design.

At some time in the future, all LHDs will eventually be forced to stop dictating one or two on-lot designs of PSTSs for a given property. In the LHD that I work for, property owners may have up to five different on-lot PSTS designs to choose from, should the soil, space and topographic conditions allow.

Property owners want multiple PSTS on-lot design options

and flexibility in siting those options. Owners generally enjoy seeing a government entity being flexible. But to be flexible, more information about the soil texture, structure and redoximorphic features is necessary, i.e., more test holes other than one or two are needed on a given lot. Additionally, soil professionals need to be honest about redoximorphic features, they are elicit much more frequently than admitted, and stating that a seasonal high water table exists in a January-through-March-dug test hole when no water is present can have thousands of dollars worth of property owner impact when it is time to select and size the on-lot PSTS design. Also, specific details on soil structure need to be generated on reports and held with the same importance as details on soil texture.

One aspect of on-lot PSTS siting still in its infancy is the siting of systems in fill material. Remediation of non-virgin soil to exhibit particular characteristics is possible and is being performed on a few lots under the supervision of owner-contracted P.E.s within the boundaries of the LHD that I work for.

Owners want the on-lot PSTS design that they select to work properly 24/7 for the next 30-40 years, or until after they sell the house or die. A registered sanitarian/environmental health specialist at a LHD is ultimately responsible for approving the siting, sizing and proper installation of a PSTS design on a lot, not a privately contracted soils professional/pedologist.

Honestly, there are few agricultural engineers, registered professional engineers and soils professionals/pedologists that have a solid grasp on the proper siting, sizing, installation, operation and maintenance of multiple designs of on-lot PSTSs. A soils professional can certify the soil on a lot to have particular characteristics, but cannot certify to other aspects of a PSTS. Registered P.E.s can certify the proper siting, sizing, and installation of a PSTS, but many take varying degrees of risk in doing so because their base of knowledge and experience is extremely limited in some cases, and in some cases, they take the approach of one size or one design fits all, when it does not.

I have to agree that there have been and will continue to be a small number of privately contracted soils professionals, P.E.s, and agricultural engineers that have a bias toward forcing a PSTS design to work in less than suitable conditions because they have been privately contracted. A better situation would be to have ARCPACS certified soils professionals on the staffs of ODH, OEPA and the LHD's to help facilitate neutrality in the siting of all on-lot sewage treatment systems.



## Teaching Non-Soil Scientists to Conduct Soil Evaluations

For several years, I was a soil scientist for the USDA Soil Conservation Service (now the Natural Resources Conservation Service). Since my involvement with soil surveys in the late 1960's, one of the objectives of our profession as soil scientists has been to gather soil data, interpret the data, and teach others how to make proper use of the data. This has seemed like the best way to get our product (and our profession) exposed to the users, and certainly there is a lot of benefit to that approach.

However, I believe we have gone too far. Now, there are many states where qualified soil scientists hold short courses to teach others (engineers, biologists, sanitarians, etc.) to make soil evaluations that in my opinion should only be done by soil scientists. We are the only profession I know of that purposely teaches other people to do our work.... and often these other professions are able to lobby to be certified or licensed to do soil consulting work, while we, the actual legitimate experts, are not! Now tell me how that makes sense?

In my opinion, it is a slam to our profession to think that in one week one can teach others to do what we spent at least four years of college (not counting the field experience) to do. Either we are really dumb, they are really quick, or they aren't doing a very good job for their clients. Regardless, this approach to "short courses" works against our profession in many ways. It puts unqualified people doing our work out in the field; it provides disincentive for states to license and recognize our profession; and it makes it more difficult for real soil scientists to competitively practice their trade.

The next time someone asks you to conduct a "short course" to qualify non-soil scientists to do soil evaluations, just say "hire me to do your soil evaluations....I'm already trained!"

Cliff Landers  
Soil and Water  
West Inc.  
Rio Rancho, NM

Printed with permission from Soil Profiles, the National Society of Consulting Soil Scientists newsletter

## Flag Communication

Submitted by Dan Michael

Performing an on site soil test normally involves communicating your sample locations to someone else. Typically, that someone else may not be there at the time of sampling. Usually, designers are required to locate the sample locations on the plan drawings.

A great way to communicate this information is simply to flag the sites with numbered wire flags. Highly visible numbered flags (yellow with black lettering) are professional looking and may be purchased at about 10 cents each. Numbers range from 1 - 9. I use Forestry-Suppliers at 1-800-647-5368.

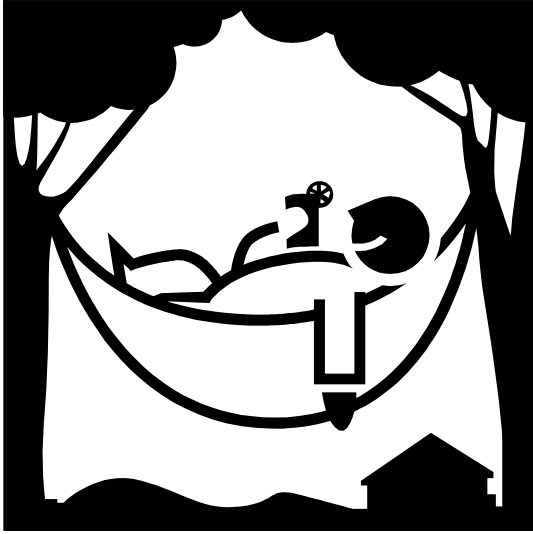
As a soil scientist, you often times will want to communicate a curved boundary where soil changes. A perfect example would be marking a boundary between a deep soil area versus an eroded side slope. The actual boundary you choose would be difficult to communicate in writing, or even draw in accurately.

Flags can come in handy again. Unnumbered colored fags can be purchased at hardware stores. So, you could mark your sample locations with numbered flags, then mark off an important border with a different color unnumbered flag. Your report would then note the meaning of the flags. This procedure pushes critical location responsibility onto the designer.

Finally, for the flag masters, special made flags with your individualized message can be made to order. We just had some printed up with a caution statement warning people to keep heavy equipment off the leach field - with a phone number. Again, the price is very inexpensive (about 12 cents each.. minimum 1,000).

Information about ARCPACS certification is available at [www.agronomy.org/certification](http://www.agronomy.org/certification). Or contact Kathie Nardi, Member Services Representative, at [knardi@agronomy.org](mailto:knardi@agronomy.org), or David Kral, Acting Executive Vice President, at [dkral@agronomy.org](mailto:dkral@agronomy.org).

## Retirements (Continued from page two)



Larry has received numerous awards and commendations for his work in soil science. He has been an outstanding spokesman for soils as a natural resource and soil science as a profession. He is now a private consultant representing the Ohio Department of Natural Resources as a soils expert for activities such as the Envirothon, Earth Day, and land judging. Hunting and woodworking occupy his spare time.

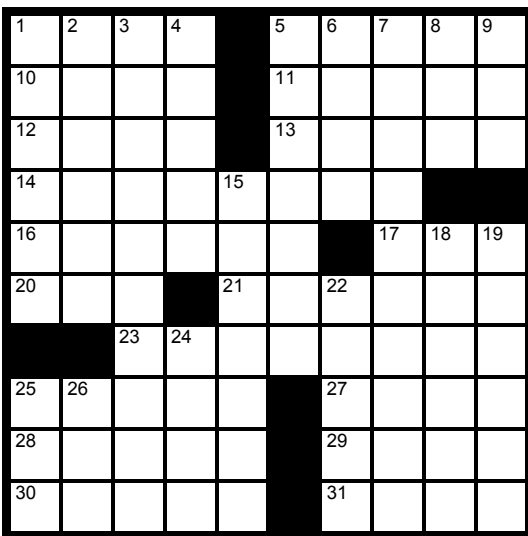
Ed Miller retired on November 30 with 28 years of experience in the Ohio Soil Survey Program. He began his career as a member of the soil survey project team in Seneca County and then served on project teams in Sandusky, Scioto, Marion, Hardin, Huron, Paulding, and Clark Counties. He mapped the soils over about 418,000 acres, or 1.6 percent of the state, and served as Project Leader for

the Marion, Hardin, Paulding, and Clark Soil Surveys between 1979 and 1991. Ed was the Division's Soil Inventory Coordinator from 1992 until his retirement and developed the Soil Information Delivery Program over the past several years.

Our prayers and best wishes go with all of you in the next years. The AOP benefits from your membership.



## Square Terry Square



### Across

- 1 segments of a circle (4)
- 5 Disney dog (5)
- 10 flat bread from India (4)
- 11 To follow (5)
- 12 43560 sq. ft.(4)
- 13 Buddhism literature (5)
- 14 Lowered in class (8)
- 16 tropical African herbs (male) (6)
- 17 goddess of fertility (3)
- 20 plural man (3)
- 21 tyrant (6)
- 23 shale containing hydrocarbons (3,5)
- 25 bore (5)
- 27 it will (contraction) (4)
- 28 bubonic plague culprits (5)
- 29 hate (anagram) (4)
- 30 natives of Finland (5)
- 31 before now; ago (4)

### Down

- 1 head garland (6)
- 2 lily of the valley (6)
- 3 cancer causing (10)
- 4 connector between fish hook and line (5)
- 5 surface of gesso (7)
- 6 A stigma or blame (4)
- 7 pertaining to bones and/or muscles (10)
- 8 mammal hair (3)
- 9 aye (3)
- 15 without aid (7)
- 18 creates allergies (6)
- 19 commemorative tablet (6)
- 22 defecates (5)
- 24 Iraq's eastern neighbor (4)
- 25 efficient (3) (abbr.)
- 26 Cassius Marcellus Clay (3)

## New Annual Winter Meeting Location

### Directions to Battelle-Darby Metro Park's Cedar Ridge Lodge, 1775 Darby Creek Drive

From the east on I 270 — West on I-70, south on Hilliard-Rome Road, west on US 40, south on Darby Creek Drive. Go about 3 miles, and look for the Battelle-Darby Metro Park and Cedar Ridge Lodge signs on the right.

From the west - From I-70, south on SR 142, east on US 40, south on Darby Creek Drive. Go about 3 miles, and look for the Battelle-Darby Metro Park and Cedar Ridge Lodge signs on the right.

### Winter Meeting Registration

Number Attending \_\_\_\_\_

Names \_\_\_\_\_  
\_\_\_\_\_

Please send \$25 per person to:  
George Derringer, AOP Treasurer  
819 Sue Lane  
Dayton, OH 45415-2134

**Deadline: January 10, 2003**

### Absentee Ballot

**Please mail to the following address if you will not be attending the Winter Meeting**

George Derringer  
819 Sue Lane  
Dayton, OH 45415-2134

President Elect  
Steve Prebonic \_\_\_\_\_  
Linn Roth \_\_\_\_\_

State Representative  
Aaron Lantz \_\_\_\_\_  
Steve Hamilton \_\_\_\_\_

Private Representative  
Todd Houser \_\_\_\_\_  
Dan Benyei \_\_\_\_\_

**Deadline: January 20, 2003**

Academic Representative  
Frank Calhoun \_\_\_\_\_  
Brian Slater \_\_\_\_\_

Federal Representative  
John Allen \_\_\_\_\_  
Gordon Gilmore \_\_\_\_\_

## Successful 2002 Soils Training paves way to 2003 Midwest Workshop Topic

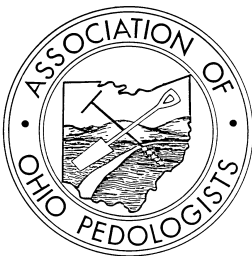
Submitted by Jean Caudill, RS

In the Fall of 2002, five regional soils training sessions were held for sanitarians working in Local Health Department household sewage system programs. From the feedback received to date, these one-day sessions were judged to be an overwhelming success by all parties involved. Partners making this a successful pilot effort include the Soil Inventory Board, ODNR, NRCS and their Resource Soil Scientists, ODH, the local Health Departments and Soil and Water Conservation Districts hosting the sessions, and the five "dirty dozen" groups of sanitarians who got their hands very "soiled" as active participants.

The workshops were limited to 12 sanitarians per session to allow for hands-on training "in the pits" with the soil scientists. These five regional workshops will be offered each year in varying locations around the state so that additional sanitarians will have the opportunity to participate. This first year pilot effort, and other soils training provided in 2002, has paved the way for our 2003 Midwest Workshop topic for the Household Sewage Program.

MARK YOUR CALENDARS FOR TUESDAY - MARCH 25, 2003! With sanitarians gaining a better understanding of how soil characteristics can influence the treatment of household sewage, it is time to explore more fully how soil characteristics relate to limiting conditions in the soil profile and the estimation or selection of wastewater

Mailing label



### Ohio Pedologist

The Ohio State University  
School of Natural Resources  
Columbus, OH 43210

loading rates. This exploration will include the consideration of design boundaries and three types of loading rates, including soil loading, linear loading, and instantaneous loading rates. ODH will be asking our own Dr. Brian Slater of OSU and Dr. E. Jerry Tyler of the University of Wisconsin to assist us in the exploration of these more complex issues related to translating soil and site information to system design and performance. Dr. Tyler has spent time in Ohio looking at our soils, and with the support of the Lake County General Health District, developed a combined soil and linear loading rate table. This table is included as an appendix to the ODH site evaluation information and is available on the ODH web site under the Publications section of the Household Sewage Program web page at

<http://www.odh.state.oh.us/ODHPrograms/SEWAGE/sewage1.htm>

As the finale to the Midwest Workshop one-day training program, Dr. Slater and Dr. Tyler will join with a panel of Ohio soil scientists from ODNR and NRCS for an open discussion of issues raised by the panelists and the audience. In an effort to encourage interaction, other soil scientists conducting soil evaluations for sewage systems will be invited to attend. Total attendance for this advanced training opportunity will be limited to 100 participants. If you want to be part of the fun, watch for the 2003 Midwest Workshop announcement and register early.