



## ILLINOIS SOIL CLASSIFIERS ASSOCIATION

### 1997 WINTER NEWSLETTER

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#### ISCA 22ND ANNUAL MEETING

**Date:** March 22, 1997  
**Time:** 11:00am to 2:00pm  
**Location:** Alexander's Steak House  
1503 E. College Ave.  
Normal, Illinois  
**Cost:** \$17.00

The 22nd Annual Meeting will be held at Alexander's Steak House in Normal, Illinois (Map is on last page of newsletter). The event is scheduled to start at 11:00am with luncheon and business meeting to start at 11:30am. The cost is \$17.00. The choice of main course is: chicken breast, ribeye steak, and filet mignon.

Doug Ebelherr, Illinois Department of Public Health Private Sewage Program Director, will be the featured speaker at the annual meeting. Doug will discuss the implementation of the new private sewage code as it relates to soil scientists. He will also discuss the IDPH interpretation of the soil tables in the code. Following Doug's talk, several ISCA members who have worked with the new code will discuss their experiences.

Please fill out the attached registration form (Page 15) and mail to Chuck Frazee by March 18, 1997. Please no walk-ins.

#### CANDIDATES FOR ISCA OFFICES

The ISCA offices of President-Elect, Vice President and Secretary will be decided at the annual meeting. A ballot for the three positions is included at the end of this newsletter. The summary descriptions listed below for each candidate were derived from information submitted to the newsletter by the candidate. Voting instructions are listed on the ballot (Page 14).

##### President-Elect

**Mary Kluz** has worked on soil surveys in Whiteside County, IL and Clark County, WI. She has also worked for the state government in Wisconsin reviewing plans for septic systems, and has taught a technical college course on soil evaluation. For the past seven years she has been in private practice. Mary became an ISCA Certified Professional Soil Classifier in 1990. She has served as chair of the Constitution and By-Laws Committee and, currently, serves on the Certification Board.

**Roger Windhorn** is currently a soil scientist on the NRCS state staff in charge of erosion/sedimentation studies and serves as the zone soil scientist for east central Illinois. Roger has a B.S. degree in Agricultural Science and an M.S. degree in Pedology, both from the University of Illinois. He served as survey leader in Knox, DeWitt, and McLean counties and has mapped in eight other counties. Roger is a charter member of ISCA and is certified through both ISCA and ARCPACS. Roger was ISCA President in 1982 and has held several other ISCA positions. He has also served on all ISCA committees.

##### Vice President

**Ken Anderson** was born and raised in Palatine, Illinois. He attended the University of Wisconsin-Stevens Point and received a B.S. in Watershed Management and Natural Resource Management and a minor in Soil Science. He served on the White County Soil Survey team and was the Executive Director and Resource Conservationist for the Kane-DuPage Soil and Water Conservation District. Ken is presently employed by

Kane County as the Manager of Platting and Environmental Section of the Kane County Development Department. Ken is a full member of ISCA and is certified as an ISCA soil classifier.

**Time:** 6:00 pm  
**Date:** Wednesday, March 12, 1997  
**Speaker:** Brian Smith, Project Manager, Regulatory Branch Chicago District of the U.S. Army Corps of Engineers

**Les Bushue** was born and raised near Effingham, Illinois. He completed both his B.S. and M.S. in Soil Science at the University of Illinois. He was SCS survey party leader in Adams County and a staff soil scientist in the SCS state office until his retirement in 1992. Les is a charter member of ISCA and has served the society on a number of committees, currently serving as chair of the Ad-Hoc Historic Committee.

The Illinois Association of Environmental Professionals is sponsoring a dinner meeting on the recent changes made to the Corps of Engineers Nationwide Permits. Mr. Brian Smith, a Project Manager in the Regulatory Section, will discuss the recent changes with an emphasis in the change to Nationwide Permit No. 26 which lowers the threshold where mitigation is required for wetland impacts from 1.0 acre to 1/3 acre. Wetland professionals and others involved in wetland and natural areas management will want to attend this evening seminar.

#### Secretary

**Bob Oja** was born and raised in northeastern Wisconsin and received B.S. degrees in Soil Science and Forestry from UW-Stevens Point in 1987. He worked as a County Soil Scientist in Warren County, IL from 1987 to 1988. Since 1988, he has been employed by the McHenry County SWCD. Bob has been a member of ISCA since 1988 and has served as Program Chairman for the last 2 years.

Cost will be \$30.00 for Members and \$35.00 for Non-Members. Dinner is included in cost. Dinner choices are Chicken Florentine, Prime Rib of Beef, and Filet of Sole Florentine.

**Mike Walker** began his career as a soil scientist in Grundy County in 1974. He mapped in several counties in northern and central Illinois. He currently serves as a soil scientist on the Naperville MLRA survey update team. Mike is ISCA certified as a professional soil classifier and is a charter member of ISCA. He has also served on a number of committees.

For further information contact:

**Contact:** Christopher B. Burke Engineering, Ltd.  
9575 West Higgins Road, Suite 600  
Rosemont, IL 60018  
Phone # (847) 823-0500

#### 24th Annual Northern Illinois Onsite Wastewater Conference and Trade Show

### NEWS, NOTES AND MEETINGS

#### News and Notes

Doug Gaines and Chuck Frazee were invited speakers at the 15th Annual Onsite Wastewater Treatment Conference held January 23 and 24, 1997 in Peoria, IL. Doug lectured on "Soil Classifiers and Individual Sewage Disposal Systems" and Chuck lectured on "Using Soil Charts". The ISCA list of Certified Professional Soil Classifiers was made available to participants of the conference. Both presentations were well received and several questions and discussions precluded conference.

The 24th Annual Conference will be at Pheasant Run Resort and Conference Center in St. Charles, Illinois on March 10, 1997 and March 11, 1997. The conference and trade show is sponsored by DuPage County Health Department, Illinois Department of Public Health, and the Illinois Environmental Health Association.

Questions concerning registration or other inquiries should be directed to:

**Paul Chase**  
DuPage County Health Depart.  
111 N. County Farm Road  
Wheaton, Illinois 60187  
Phone # (630)682-7979

#### Meetings

#### Illinois Association of Environmental Professionals

*A Seminar on Changes to the Corps of Engineers Nationwide Permits.*

**Place:** Stevens Steak House  
476 North York Road  
Elmhurst, Illinois

#### ARCPACS SOILS BOARD ADOPTS EXAM STANDARD

Beginning in January 1998, qualification as an ARCPACS Certified Professional Soil Scientist (CPSS) will require passing two examinations. Certification will require a minimum of a B.S. degree in soils (or related field), with 15 semester hours of soils courses,

five years of experience, and a passing grade on the *Fundamentals of Soil Science Examination* and the *Professional Practice Soil Science Examination*. SSSA, working with soil science licensing boards over the past two years, has developed both examinations. Many of the state licensing boards will require the same examinations.

ARCPACS Soils Board Chair Margie Faber said the change to an exam standard for soils was an important step to gaining recognition for the ARCPACS Soils programs from local and state governments. The credentials for CPSS, Faber said, will soon mirror those of our colleagues in engineering and geology, which require exams. Requiring an exam strengthens the case for the CPSS to be included in statutes, administrative codes, and rules. Faber said the change was also important to keeping the ARCPACS Soils CPSS program in step with the soils licensing requirements in North Carolina, Minnesota, Virginia, New Hampshire, Maine, and a pending program in Texas. Soil Scientists in good standing or who apply by end of 1997, will not have to take the exams.

All applicants in 1998 will have to pass both examinations to become certified soil scientists. Applicants can take the Fundamentals exam without experience and graduating seniors are encouraged to begin the certification process just before or after graduation. To be eligible for the professional exam, applicants must demonstrate that they have five years of soil science work experience. Both exams are based on the Soil Science Performance Objectives developed by the SSSA. These Performance Objectives will be published and be available in early summer 1997.

During the annual meetings, the chairs of all the other ARCPACS certification boards expressed their support of an examination standard and they are exploring and developing exams for their certifications. The Certified Crop Adviser (CCA) program requires national and state specific examination; the Agronomy Board, beginning in 1997, requires applicants pass the CCA National Exam.

For information about ARCPACS soil science certification, phone Cleo Tindall at (608) 273-8090, ext #315.

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## PROPOSED CHANGES TO THE MEMBERSHIP HANDBOOK OF THE ILLINOIS SOIL CLASSIFIERS ASSOCIATION

*President's Note: The following proposed changes to*

*the ISCA Membership Handbook will come before the Executive Council at the March Board meeting. These changes may be brought before the membership for a vote at the annual meeting. If you have questions or concerns about these changes, please talk with a council member or officer before the next council meeting which will immediately precede the Annual Meeting*

**To:** All Associate, Full, and Honorary Members of ISCA

**From:** Certification Board; Constitution, By-Laws and Legislative Committee; Ethics, Certification, and Membership Committee

The Board and the Committees ask the voting membership to review the proposed changes to the Code of Ethics, By-Laws, and Standards for Certification of Professional Soil Classifiers. The changes serve to clarify issues relating to professional misconduct. They also address certification procedures and certain fees.

### CODE OF ETHICS

**Article II.5.** The current item needs clarification. Delete as presently worded and insert as follows:

5. A Member shall not omit information or issue a false, dishonest, or deceitful statement, or engage in fraudulent conduct. A Member shall not accept financial gain or other personal benefits that interfere with the exercise of sound professional judgement and skills.

**Article III.2.** The current item is clarified and its wording is made consistent with other wording in the Code of Ethics as follows:

2. A Member who finds that his/her obligations to an employer or client conflict with his/her professional obligations or ethics should ~~shall~~ have such objectionable conditions corrected or resign ~~shall not~~ participate in the objectionable activity.

**Article III.6.** Omit this item. It is rather vague and its intent is described under Article III.3.

**Article III.7.** Re-number as 6.

**Article III.8.** Re-number as 7.

**Article V.1.** It is to be understood that those who do not adhere to the Code of Ethics may be deemed as lacking moral character. Therefore, the item is amended as follows:

1. Every Member shall aid in the preventing the election to membership of those who ~~lack moral character~~, who have not followed these standards of ethics or who do not have the required education and experience.

### **BY-LAWS**

**Article II. Sec. 1.** Election to membership. Add c. to formally incorporate an annual pledge to adhere to the Code of Ethics, as follows:

- c. All candidates for membership shall, upon application for membership, read and fully subscribe to the Code of Ethics. All Members shall, upon annual renewal of membership, read and fully subscribe to the Code of Ethics.

**Article II. Sec. 2.** Severance of membership. Item b.1. needs to be changed to make it consistent with the By-Laws as stated in Item b.3., which requires a vote of the Association upon the recommendation of the Council. It also includes a suspension of membership, and eliminates "withdrawn" which implies a voluntary severance of membership.

#### **b. Involuntary**

1. A person shall automatically cease to be a Member of the Association when membership has been permitted to lapse or membership has been revoked or ~~withdrawn~~ suspended for any reason by the ~~Council~~ Association.

**Article II. Sec. 2.** Severance of membership. Item b.3. needs to be clarified to allow for involuntary severance other than expulsion such as suspension. It also will allow for censure, as described in Item b.4. It also states grounds for severance of membership.

#### **b. Involuntary**

3. Members may be expelled from the Association, have their membership suspended, or be censured by a two-thirds vote of the eligible voters of the Association, and then only when the matter has been reviewed by the Ethics, Certification, and Membership Committee and presented to the Association by formal action of the Council and approved by a quorum of the Council.

Grounds for expulsion, suspension, or censure may include any of the following: fraud or deceit in obtaining membership, professional misconduct, any violation of the Code of Ethics, or incompetency in the practice of soil classifying.

It has been suggested that the Association needs to specify a procedure for reinstatement of membership if it specifies procedures for expulsion or suspension. Therefore, the following addition to Article II of the By-Laws is proposed:

### **Section 3. Reinstatement of membership.**

a. Suspension of membership shall not exceed twelve (12) months. During the period of suspension, the suspended soil classifier shall not represent himself or herself as a Member of the Association. At the end of the suspension period, the suspended soil classifier may have his or her membership reinstated by making application to the Association, payment of dues for the current year and any reinstatement fee prescribed by the Council, and agreement to fully subscribe to the Code of Ethics.

b. Any soil classifier whose membership has been revoked, or who has been expelled from the Association may be eligible for reinstatement after a period of no less than one year from the date of revocation or expulsion. Reinstatement may be granted upon following the procedures described in Article II. Section 3.a.

### **Standards for Certification of Professional Soil Classifiers**

#### **Section 4. Procedures and Responsibilities of the Certification Board**

Gender-neutral wording is proposed for (a) and (b). A change in (b) removes the requirement to notify applicants of Board meetings. It is stated earlier in this section that the Board will meet as necessary to conduct its business, and that applications will be processed within a reasonable time.

- (a) The board shall elect from its membership, at its first meeting, officers for the coming year. The officers shall be chairman, vice-chairman, and secretary-treasurer. The duties of the chairman shall be to preside at all meetings of the Board. The

vice-chairman shall preside in the absence of the chairman. The secretary-treasurer shall keep all records and files of the Board.

(b) ... Notice of all meetings of the Board shall be given by the chairman, at least thirty (30) days in advance, to each member of the Board and to each applicant seeking certification.

### Section 5. Standards and Requirements for Certification

It is proposed that a time limit be set for the applicant to take the examination once the application is submitted in order to keep the certification process moving along. The second paragraph of this Section is revised as follows:

Applicants shall have one (1) year from the date of application to take the examination. Applicants that do not take the examination within one (1) year must reapply following the procedures described in Section 6, and pay the application fee as described in Section 7. All applicants shall ...

### Section 6. Procedures for Application

Change first sentence to read as follows:

Applications for certification may be submitted at any time and shall be on forms of a format prescribed and furnished by the Board.

### Section 7. Fees

The following changes in fees are proposed:

... collect from the applicant a fee of fifteen dollars (\$15.00) forty dollars (\$40.00).

The fee for annual renewal of the certificate shall be ten dollars (\$10.00) twenty-five dollars (\$25.00).

### Section 8. Renewal, Expiration, and Restoration of Certification.

Category A: Continuing Education and Training

3. ... conferences...

The following revision of (a) is proposed to clarify expiration of certification, and to provide a "grace

period" of delinquency similar to that under Article II, Sec. 2.b.2. of the By-Laws:

Every certificate not renewed on or before January 1 or in the month of January of any year expires on February 1 of the year. Any Professional Soil Classifier shall be listed as "delinquent" if fees remain unpaid after the due date of January 1 of the current year. His/her certificate shall expire if fees remain unpaid for sixty (60) days after the due date. A Professional Soil Classifier whose certificate has expired may have his or her certificate restored only by making application to the Board upon payment of all lapsed renewal fees and payment of the required restoration fee provided that he or she has engaged in the practice of soil classifying three (3) of the preceding four (4) years, or have more than six (6) years of total soil classifying experience and have actively practiced soil classifying during the preceding year. If certification has lapsed for more than four (4) years, the applicant shall again be required to pass an examination as described in Section 5 (f).

### Section 9. Suspension, Revocation, and Reinstatement of Certification.

Edit Section 9 as follows:

(a) The board may, upon its own motion, and may, upon receipt of written complaint, investigate the actions of any Professional Soil Classifier certified by it. ~~It shall have the power to suspend certification.~~ It shall also have the power to suspend or revoke certification when the Professional Soil Classifier is found guilty of any of the following practices: Board has determined that the Professional Soil Classifier has engaged in any of the following: fraud or deceit in obtaining certification, any violation of the Code of Ethics, or negligence, professional misconduct, or incompetency in the practice of soil classifying.

(b) Before the Board shall suspend or revoke the certification of any Professional Soil Classifier it shall give that individual a hearing on the matter and shall, at least twenty (20) days prior to the date set for such hearing, notify the individual in writing. Such notice shall contain the exact statement of charges against him or her and the date and place of the hearing. Such individual shall be heard in person or by counsel before the

## Certification Board

(c) If, after such hearing the Board has determined that the charges have been substantiated and the Board votes in unanimous favor of suspension or revocation, the soil classifier shall be notified and shall, on such notice, immediately return his or her certificate of certification.

(d) Suspension of certification shall not exceed twelve (12) months. During the period of suspension, the suspended soil classifier shall not represent himself or herself as an ISCA Certified Professional Soil Classifier. At the end of the suspension period, a Professional Soil Classifier may have his or her certificate reinstated by making a written request to the Board at the end of the period of suspension, upon payment of all lapsed renewal fees, and agreement to adhere to the Code of Ethics.

(e) Any Professional Soil Classifier whose certification has been revoked may be eligible for recertification after a period of no less than one (1) year after the date of revocation. He or she must be eligible for certification as described in Section 5 of these Standards and shall follow the procedures for application as described in Section 6.

The revisions and amendments stated above were drafted in final form on 22 February 1997, and are hereby submitted to the voting membership for discussion and action at the 22nd Annual meeting of the Illinois Soil Classifiers Association on 22 March 1997.

## AD HOC HISTORIC COMMITTEE REPORT

The Illinois Agricultural Experiment Station Contributions to Soil Survey (1902-1994) publication by K.R. Olson and J.B. Fehrenbacher has been published in this edition of the ISCA Newsletter and has been placed in ISCA archives. We also plan to contact Leon Follmer, of the Geologic Survey, to see if he wants to make a contribution to the archive.

In response to a request by Doug Gaines, the committee is in the process of compiling a list of officers, committee chairs, and committee members who have

served ISCA. While compiling this list we have noticed that our early lists were more complete than our later lists. Thus we will need to spend more time compiling data from numerous other records.

We are also in the process of making lists of certified members and annual meeting locations. There are also plans to locate annual meeting programs and other ISCA programs.

Lester Bushue, Chair

## TREASURER'S REPORT

January 1, 1996 - December 31, 1996

Balance in Account - 01/01/96	\$8,901.04
<b>Income:</b>	
Dues	3,555.00
Interest	348.60
Soil Cards	21.00
	-----
	\$3,924.60
<b>Expenses:</b>	
Administration	264.80
Annual Meeting Expense	611.06
Soil Survey Horizons	793.00
Summer Meeting Expense	112.11
Awards	40.73
ASA - Students	300.00
	-----
	\$2121.70

Ending Bank Balance - 12/31/96 \$10,703.94

Submitted by:  
Charles J. Frazee, Treasurer

## ILLINOIS AGRICULTURAL EXPERIMENT STATION CONTRIBUTIONS TO SOIL SURVEY (1902-1994)

by  
K.R. Olson and J.B. Fehrenbacher

ABSTRACT: The Illinois Agricultural Experiment Station has been a major contributor to the Soil Survey of Illinois since 1902. Initial activities included mapping soil types by county, conducting soils investigation and genesis studies, collaborating in the development of soil science, promoting the use of soil survey information, and developing soil productivity

indexes. Later, the Experiment Station provided laboratory soil characterization data for county soil surveys and computerized all of the laboratory soil property data for Illinois pedons including many long-term studies relating soil properties to soil parent material. Mineralogists established that most soil clay in Illinois was crystalline with montmorillonite predominant in Peoria loess and illite in Wisconsinan glacial till. Mineralogists used the presence of significantly more biogenetic opal to identify soils formed under long periods of grass rather than trees. In recent years, the Illinois Agricultural Experiment Station conducted research on reclamation of agricultural soils disturbed by surface mining, quantified soil loss from erosion, studied the effects of erosion on soil properties and crop yields, evaluated methods to maintain or restore productivity on previously eroded soils, and studied the effects of accelerated erosion on the taxonomic placement of Illinois soils. Most of the research was conducted to address classification and interpretational needs of the soil survey.

The soil survey of Illinois began as a cooperative project between the Illinois Agricultural Experiment Station and the U.S.D.A., Bureau of Soils in 1902. The Soil Survey of the Illinois Agricultural Experiment Station has always been in the Agronomy Department of the College of Agriculture, University of Illinois at Urbana-Champaign. Dr. Milton Whitney, Head of the U.S.D.A., Bureau of Soils, and Dr. C.G. Hopkins, Head of the University of Illinois, Agronomy Department were the two main negotiators in these early proceedings. As an example of the problems before them, the point at which the survey should start could not be agreed upon at first. Dr. Hopkins wanted to do strip mapping, a township or two wide, but Dr. Whitney wanted to confine the mapping to perhaps a county that could be readily published and used to obtain congressional approval for further support. It was finally agreed that the mapping would start in Tazewell County in central Illinois, and it did so in April 1902. The mapping in Tazewell County was completed in about five weeks by four men, two Bureau and two State men, and the Bureau of Soils map and report were published in 1903. The four men also mapped Clinton, St. Clair, and Clay Counties in 1902. Six counties were mapped in the 1903 field season by two Bureau men and six State men. Late in 1903, after two field seasons, the cooperative arrangement was terminated by the U.S.D.A. mainly because agreement on soil classification standards and procedures in general could not be reached.

Even after the termination of the cooperative agreement,

the period of rapid mapping continued until about 1930. The U.S.D.A. continued some mapping on their own after 1903, but gradually phased out their work in Illinois in the next several years. The Illinois Agricultural Experiment Station, on the other hand, increased their surveying and in 1915 had 28 mappers working in the state. Publication of the county surveys which included the soil map, a brief description of the soils, soil analyses, and recommendations on use and management of the soils lagged far behind the mapping. The first soil report (No. 1) published by the Illinois Agricultural Experiment Station was for Clay County in 1911. Soil report No. 2 for Moultrie County was also published in 1911. A complete chemical analysis of the major soil types in Illinois, included in each county soil report until 1934, gave some indication of fertility levels.

A number of events happened in the years after 1903 in the Agricultural Experiment Station Soil Survey. Some of these items occurred in the Experiment Station only, and some were the result of interaction with the U.S.D.A. These items are discussed briefly below:

1. C.G. Hopkins, Head of the Department of Agronomy, University of Illinois, started the Experiment Station survey in 1902. J.G. Mosier was in charge of the survey from 1904 to 1922, R.S. Smith from 1922 to 1948, R.T. Odell 1948-1970, J.B. Fehrenbacher 1970-1982, I.J. Jansen 1982-1989, K.R. Olson 1989 to 1994.
2. J.G. Mosier was employed by the College of Agriculture in 1902 and placed in charge of the field survey. Ill health hindered his participation in his last two years, 1920-1922. Dr. Hopkins maintained an interest in the survey until his death in 1919.
3. The Illinois Agricultural Experiment Station changed from horse and buggy travel to automobile in 1915. This allowed the groups of surveyors in a county to be more centrally located and promoted closer coordination of the day-to-day work.
4. During the period of rapid mapping, correlation of soils was made by the Illinois program within the State, but there was no regular correlation procedure with other states until 1948.

5. A "descriptive" naming system was adopted at first using names such as "Brown silt loam" for the dark-colored prairie soils. As more soil units were recognized this system became unwieldy and was abandoned in 1929 for the "place-name" system of the U.S.D.A. The soil names were taken from a nearby town or county or some other suitable feature where the soil was first mapped.
6. A complicated numbering system was used initially, but it, like the naming system, became cumbersome and was dropped in 1930-1932 for a simple, straight numerical system which is still used today.
7. Aerial photographs became available as field base maps about 1937 and contributed greatly to accuracy of placement of soil boundary lines.
8. The first soil survey of the entire state of Illinois was completed with the mapping of Jasper County in 1928. By this time, progress in Soil Science was great enough that revisions of most of the counties in the state were sorely needed. Increased knowledge in soil chemistry, soil physics, and clay mineralogy were used to justify an update of the Illinois Agricultural Experiment Station Soil Survey program.
9. In 1943, a cooperative soil survey program was resumed between the U.S.D.A. and the Illinois Agricultural Experiment Station, and it continues to the present time. The Illinois Soil Survey program was greatly reduced during "World War II". Mapping was resumed about 1946 with most survey parties since then consisting of several U.S.D.A. and several State soil mappers.
10. Several soil association maps have been published for Illinois. The first modern one was published in 1950 by H.L. Wascher et al, followed by more detailed maps in 1967 and 1984 by J.B. Fehrenbacher et al. The general soil map published in 1984 was a much larger map with more detail and more discussion of the soil association.
11. The U.S.D.A., Soil Conservation Service (SCS) resumed mapping soils in Illinois in the 1930's for farm planning purposes and introduced slope and erosion phases which the state survey started using in 1946. In the 1950 and 1960 decades, the Illinois Agricultural Experiment Station helped convert many of the farm planning legends to standard soil survey legends. The Illinois Agricultural Experiment Station staff interacted with many U.S.D.A. personnel from 1902 to 1994. Many soil scientists worked on soil surveys in Illinois; however, only the names of the U.S.D.A. State Soil Scientists for Illinois are listed here: Bruce B. Clark, 1938-1942; Eugene Steely, 1942-1946; A.A. Klingebiel, 1946-1954; L.J. Bartelli, 1954-1961; L. Tyler, 1961-1972; E.E. Voss, 1972-1988; and R. McLeese, 1988 - present.
12. In the 1930's and 40's it became evident in northeastern Illinois that all areas of "Brown silt loam", for example, were not highly productive, and their use and management should recognize that, with increasing clay in the subsoil and underlying materials, greater levels of management were necessary for profitable agriculture. Recognition of these facts led to increased need for soil survey maps and soil reports in that part of the state.
13. In the 1930's, mineralogists (J.E. Giesecking, E.E. DeTurk, R.H. Bray, and others from the Illinois Geological Survey) established that most soil clays in Illinois were crystalline, and discovered and named the clay mineral, illite. In the 1950's, montmorillonite was identified as the predominant clay mineral in Peoria loess and illite was the principal clay mineral in the Wisconsinan glacial till (A.H. Beavers, R.L. Jones).
14. In 1951, Guy D. Smith, a former University of Illinois, Agronomy Department employee who had joined the U.S.D.A. soil survey program, was given the assignment of leading the development of a world-wide cooperative system of soil classification. This classification system, though not complete, was published in U.S.D.A Handbook 436 in 1975. The system is being revised and updated from time to time and is widely used in a number of countries.



15. The Illinois Agricultural Experiment Station retained the right to publish the county soil reports until 1961 when the U.S.D.A. was granted the right to publish the Wabash County report. In the publication of Wabash County report by the U.S.D.A., and the Johnson County report by the Illinois Agricultural Experiment Station, both in 1964, the scale of the maps changed to 3 1/4 inches equal one mile, and they were printed with a photo background.
16. In the 1960's and 1970's, mineralogists (A.H. Beavers, R.L. Jones, I. Stephen) found opaline silica to be common in the A horizons of Illinois soils as a result of the accumulation of residues of plants in which this mineral was formed. Researchers determined that there was significantly more biogenetic opal in soils that developed under long periods of grass vegetation than under forest vegetation.
17. The role of the Illinois Agricultural Experiment Station has gradually shifted to doing more laboratory work in soil characterization and soil research to support the soil survey. Until 1980, provisions were there for graduate students to join the survey parties in summer mapping seasons to get actual experience with soils in their present natural field setting. Since 1902, 85 M.S. and 40 Ph.D. degrees have been awarded to graduate students majoring in pedology or mineralogy.
18. At present, modern soil reports for Illinois are published for 73 counties. In addition, twenty-five counties have the mapping completed and the remaining four counties are currently being mapped. The state has 102 counties.
19. With the shift away from soil mapping, the Illinois Agricultural Experiment Station has conducted more research projects including the influence of loess and till on soil development (J.B. Fehrenbacher, B.W. Ray, J.D. Alexander), the rooting of common farm crops, particularly in root restrictive soil horizons (J.B. Fehrenbacher, B.W. Ray, J.D. Alexander, R.H. Rust), the clay minerals in Illinois soils (A.H. Beavers, R.L. Jones), the productivity of Illinois soils under varying management (G.D. Smith, R.T. Odell, R.H. Rust, J. B. Fehrenbacher), amelioration of high sodium "slick spot" soils in south central Illinois (J.B. Fehrenbacher, R. T. Odell, A.H. Beavers, L.P. Wilding), and the use of a color chart for estimating the organic matter content of soils for guidance of herbicide applications (J.D. Alexander).
20. The soil map and possibly the soil report are now being revised in four Illinois counties (McHenry, St. Clair, DeKalb, and Adams). New studies and new knowledge still require updating of modern soil surveys over time. The completion time for updates of soil surveys is not known.
21. Starting in 1975, research on reclamation of agricultural soils disturbed by surface mining was initiated at many locations in Illinois (I.J. Jansen, R.E. Dunker, C.L. Hooks, S.L. Vance, R.G. Darmody). High soil strength commonly inhibited plant root growth. The poor physical condition of reclaimed soils resulted in limited crop yields. Deep tillage increased crop yields in compacted reclaimed soils.
22. In 1985, the effects of soil loss from erosion on soil properties and crop yields were studied (K.R. Olson, E. Nizeyimana) at eight locations with eroded phases of major Illinois soils. Results for soils formed in loess with favorable subsoils for roofing showed minor yield reductions with increasing degrees of erosion. However, major corn yield reductions occurred when either loess-derived soils with unfavorable subsoils or soils developed in glacial till were eroded.
23. In 1987, research was initiated to quantify the extent of soil loss from accelerated erosion (K.R. Olson, R.L. Jones, W.R. Kreznor). U.S.D.A. erosion classes, which are based on erosion of topsoil, underestimate the extent of erosion because they ignore subsoil erosion.
24. In the late 1980's and early 1990's, J.B. Fehrenbacher, E.E. Voss, and K.R. Olson, with help from U.S.D.A., SCS, computerized all of the data on Illinois pedons (soil profiles) that had been determined in the Illinois Agricultural Experiment Station laboratories

since about 1925. Descriptions are included on 95 % of the total of 2200 pedons. A few pedons lack complete data. Data has been exchanged with the National Soil Survey Laboratory (USDA) in Nebraska.

25. Starting in 1989, field testing of contrasting tillage and no-tillage systems were conducted in Southern Illinois (K.R. Olson, S.A. Ebelhar, B.K. Kitur, S.R. Phillips) to evaluate ways to maintain or enhance productivity and to determine the extent to which productivity of eroded soils could be restored. No-till systems were shown to be more sustainable over time.
26. In 1994, research (K.R. Olson, J.M. Lang) was initiated to develop crop yield and productivity indexes for 100 new soil types which have been recently correlated in Illinois by the cooperative soil survey (SCS and the Illinois Agricultural Experiment Station).

Personnel involved in soil survey mapping for the Illinois Agricultural Experimental Station and their dates of service are given in a paper by Smith and Wascher (1967) which has been updated to 1994.

In conclusion, the Illinois Agricultural Experiment Station has made a significant contribution to the first 100 years of the soil survey. We look forward to participation in the next 100 years of the National Cooperative Soil Survey.

Sources of Information on Illinois Agricultural Experiment Station Contributions to Soil Survey, 1902-1994:

Fehrenbacher, J.B. 1/23/62. Notes of meeting of the State Soil Survey personnel on survey policy. Also notes of 3/5/62 meeting of the same above group.

Howell, R.W. and R.T. Odell. 1989. Department of Agronomy, University of Illinois. A History 1951-1988.

Illinois Agricultural Experiment Station Staff. 1924 to 1993. Research Progress Reports. University of Illinois at Urbana-Champaign.

Sears, O.H., F.C. Bauer, G.H. Dungan, J.C. Hackleman,

and C.M. Woodworth. 1960. Through the years with the Department of Agronomy, Special Publication No. 1, University of Illinois College of Agriculture.

Smith, R.S. and H.L. Wascher. 1967. Unpublished manuscript and updated to 1994, History of the Illinois State Soil Survey.

**STATE SOIL SURVEY MAPPING PERSONNEL IN ILLINOIS**  
**UP-DATED 12/19/94**

Alexander, J. D.	1946-1985	Fehrenbacher, D. J.	1979-1980
Allen, E. R.	1906	Fehrenbacher, J. B.	1938-1982
Allen, J. B.	1957	(In charge of Soil Survey 1970-1982)	
Allison, Roy	1957	Fielder, V. B.	1926-1927
Anderson, R.	1961-1964	Fisher, F. A.	1908-1919
Arends, F. G.	1908-1909	Flock, M.	1979-1983
Arends, A. B.	1916	Follmer, L. R.	1964-1970
		Frazee, C. J.	1962-1969
Beaumont, G. F.	1913-1916	Freeman, D.	1957-1958
Beavers, A. H.	1950-1953	Fry, C. E.	1926
Bohannon, R. A.	1953-1957	Fullenwider, F. T.	1913-1914
Bopp, J. V.	1906-1910		
Born, C. E.	1919-1920	Gardner, M. J.	1964-1965
Brewbaker, H. E.	1916	Gentle, R. W.	1905-1907
Bruce, Romeo	1961-1962	Gentle, G. E.	1910-1920
Burwash, A. E.	1912-1913	Gernert, W. B.	1907
Buzzard, G. W.	1946-1947	Gibson, J. M.	1923-1924
		Giesecking, J. E.	1931-1936
Carlson, H. L.	1919-1920	Glick, E. E.	1909-1915
Cassel, D. K.	1961-1962	Grantham, G. M.	1910-1915
Clark, B. B.	1921-1925	Grossman, R. D.	1954-1958
Coale, J. W.	1921-1925	Gurnsey, Carl	1965-1966
Colcord, F. M.	1913-1914	Gustafson, A. F.	1905-1912
Copes, I. O., Jr.	1921-1922		
Craig, S. J.	1906-1907	Hall, G. F.	1958-1960
Crammond, R. G.	1920-1925	Hallbick, D. C.	1952-1953
Crosthwaite, G. A.	1903-1904	Harland, M. B.	1921-1924, 1930
		Harrington, W. A.	1918-1920
Darmody, R. G.	1981-1983	Harz, A. W.	1915-1917
Daviess, C.	1908-1911	Hayes, A. W.	1907-1910
DeTurk, E. E.	1917-1919	Hensold, H. H.	1915-1916
de Werff, H. A.	1911-1917	Higgins, A. L.	1905-1909
Dickenson, R. W.	1909-1916	Hiltabrand, W. P.	1919-1924
Donahue, R. C.	1906-1907	Hinrichs, H. S.	1916-1918
Dunham, R. S.	1913-1916	Holt, S. V.	1906-1917
Dykerman, J. C.	1959-1960	Hufford, C. T.	1914-1918
Edwards, W. M.	1961-1962	Isaacson, M. R.	1924-1928
Eidman, G. H.	1903		
Ellis, O. I.	1912-1928	Jansen, I. J.	1974-1982
Endres, A. A.	1922-1926	(In charge of Soil Survey 1982-1989)	
Ensminger, L. E.	1936-1938	Janssen, W. W.	1955-1956
Erickson, A. E.	1941-1946	Johnson, P. R.	1955-1961

Jones, S. C.	1907-1910	Questel, B. H.	1915-1920
Karraker, P. E.	1908-1913	Rains, R. S.	1930-1931
Karraker, A. H.	1915-1919	Rawlings, R. T.	1929-1930
Kell, W. V.	1910-1912	Ray, B. W.	1947-1980
Kidder, A. F.	1903-1907	Richey, F. C.	1914-1916
Knox, W. H.	1902	Riecken, F. F.	1935-1941
Knox, E. G.	1949-1950	Rigg, G. L.	1912-1915
Lathrop, W. H.	1931	Rimer, A.	1955-1956
Leighty, W. J.	1927-1928	Romine, J. F.	1910-1916
Li, Lien-Chieh	1942	Runge, E. C. A.	1954-1956
Lloyd, R. C.	1902-1906	Rust, L. E.	1919-1920
Logan, C. C.	1904-1909	Rust, R. H.	1948-1951
Lumbrick, A.	1907		
Lumley, H. M.	1919	Sachs, W. H.	1908-1910
McVickar, J. S.	1938-1941	Sattler, R. E.	1955-1956
Matson, G. C.	1905	Schlots, FR. E.	1925-1928
Maxwell, D. C.	1924-1934	Scholl, C. A.	1919
Meyer, W. H.	1921-1923	Scott, R. A.	1922-1923
Middleton, C. B.	1926-1927	Shivley, T. R.	1914-1915
Moore, W. K.	1918	Simonson, C. H.	1940-1941
Morrison, C. A.	1920-1925	Sinclair, H. R., Jr.	1958-1959
Mortland, M. M.	1947-1950	Skimina, C. A.	1954
Mosier, J. G.	1903-1906	Smith, R. W.	1907
(In charge of Soil Survey 1904-1922)		Simth, G. D.	1929-1942
		Smith, R. S.	1912-1913
		(In charge of Soil Survey 1922-1948)	
Nelson, R. A.	1909-1910	Smith, V. P.	1911-1913
Nelson, W. L.	1937-1941	Sopher, C. D.	1962-1963
Norton, E. A.	1920-1934	Spencer, W. F.	1948-1949
Oathout, C. H.	1904	Stauffer, R. S.	1923-1925, 1932
Odell, R. T.	1937-1947	Stevens, T. C.	1922
(In charge of Soil Survey 1948-1970)		Stewart, H. W.	1906-1917
Olson, K. R.		Tarbox, R. J.	1918
(In charge of Soil Survey 1989-1994)		Thomas, Melvin	1909-1914
Orcutt, A. W.	1909-1910	Thompson, J. A.	1905-1906
Oschwald, W. R.	1949-1951	Torgerson, R. F.	1912-1918
Parkinson, K. W.	1914-1917	Tracy, P. H.	1918-1920
Pearse, T. G., Jr.	1938-1941	Tuttle, H. F.	1915-1918
Pilchard, E. I.	1915-1916	Veale, P. T.	1937-1838 and 1946-1952
Power, James	1951-1952		
Price, A. L.	1920-1921		

Waggoner, M. E.	1918-1924
Wagner, L.	1959
Wascher, F. W.	1909-1919
Wascher, H. L.	1926-1967
Whalin, E. A.	1918-1919
Wheeler, H. C.	1908-1919
Wheelock, C. E.	1910-1913
Whiteside, E. P.	1933-1947
Wilding, L. P.	1959-1962
Willis, Clifford	1903-1907
Wilson, W. W.	1904
Winkelmann, D. P.	1960
Winters, Eric	1927-1937
Wolkoff, M. I.	1920
Woddard, John	1911-1922
Worthen, E. L.	1904-1905
Wright, Douglas	1913-1916
Wyles, S. M.	1904
Yapp, W. W.	1911-1912



# ILLINOIS SOIL CLASSIFIERS ASSOCIATION

## ISCA 22ND ANNUAL MEETING

Saturday March 22nd, 1997

11:00am to 2:00pm

Alexander's Steak House  
1503 E. College Ave.  
Normal, Illinois

Name(s): MARK BRAMSTEDT

Address: 685 LARRY POWEL RD

City & State: BOURBONNAIS IL

Zip: 60914

Phone #: 815-937-3282

Number Attending: ONE

Fee Enclosed: \$ 17<sup>00</sup>

Please Circle Your Luncheon Selection:

Chicken Breast

Ribeye Steak

Filet Mignon

Please Return by March <sup>18</sup>~~22~~, 1997 to:

Chuck Frazee, Treasurer  
65 Gaffney Rd.  
Divernon, IL 62530



# ILLINOIS SOIL CLASSIFIERS ASSOCIATION

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## 1997 BALLOT

### For President-Elect

Mary Kluz

Roger Windhorn

### For Vice President

Ken Anderson

Les Bushue

### Secretary

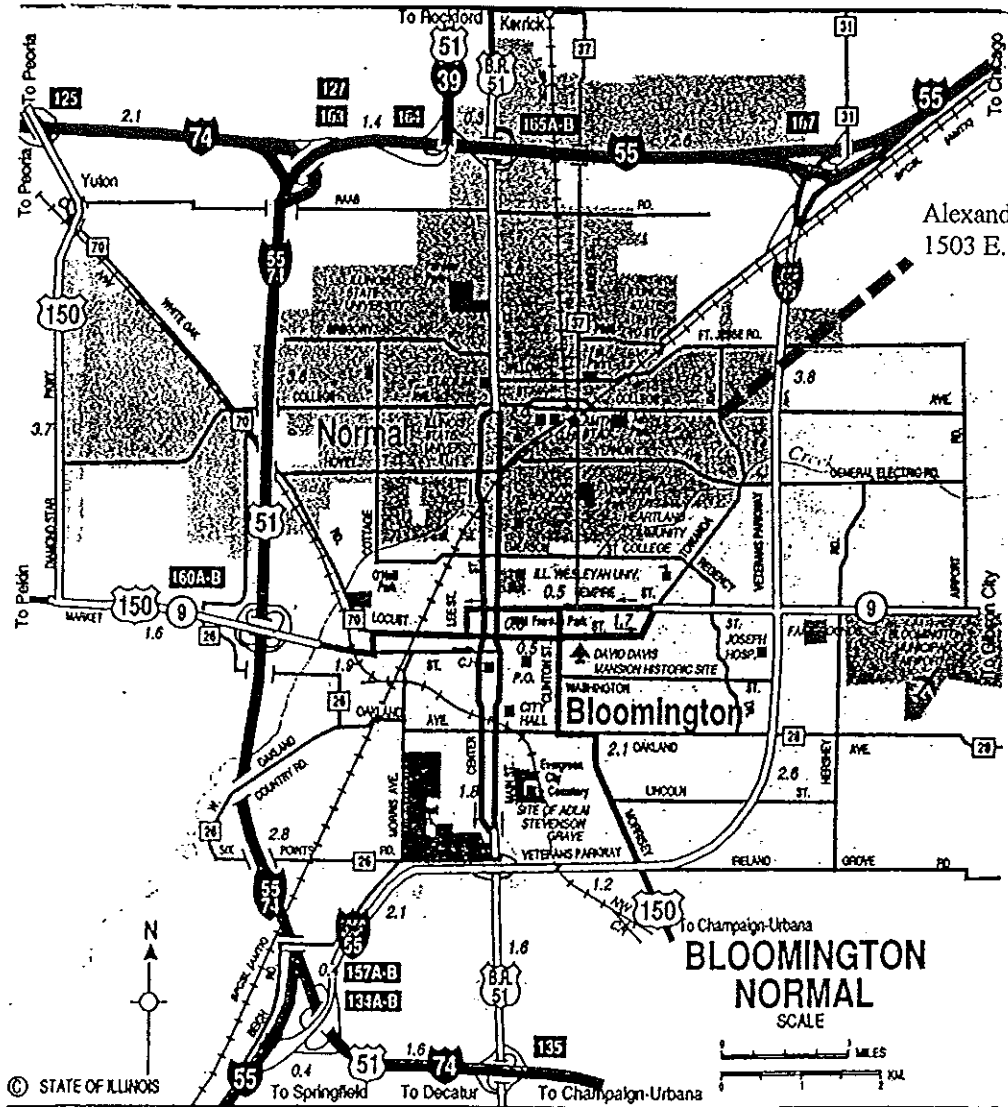
Bob Oja

Mike Walker

***☞ Voting Privileges are extended only to Full, Honorary Full, and Associate Members.***

Ballots must be received by the Nominations Committee Chair by the start of the annual business meeting of the Illinois Soil Classifiers Association, **March 22, 1997**. If you will not be in attendance, ballots must be received by the Secretary of the ISCA (Ward Lenz) prior to the annual meeting. Ballots received by mail after **March 21, 1997** will not be counted.

Ward Lenz  
ISCA Secretary  
5746 LRC Road  
Waterloo, IL 62298-6554



Alexander's Steak House  
1503 E. College Ave.

**BLOOMINGTON  
NORMAL**  
SCALE

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## 1997 SPRING NEWSLETTER

-----  
 President - Gerald Berning (618) 465-9336  
 President Elect - Roger Windhorn (217) 398-5280  
 Past President - Pat Kelsey (630) 719-2417  
 Vice President - Ken Anderson (630) 232-3495  
 Secretary - Mike Walker (630) 897-5753  
 Treasurer - Chuck Frazee (217) 628-3518  
 -----

Certification Board Chair - Mary Kluz  
 (815) 456-3333  
 Certification Board Secretary - Steve Suhl  
 (217) 498-8511  
 -----

Editor - Pat Kelsey (630) 719-2417  
 The Morton Arboretum  
 4100 Illinois Rt. 53  
 Lisle, IL 60532-1293  
 FAX (630) 719-2433  
 E-mail: pkelsey@mortonarb.org  
 -----

### 1997 ELECTION RESULTS

President Elect	Roger Windhorn
Vice President	Ken Anderson
Secretary	Mike Walker

### 1997 COMMITTEE CHAIRS

Constitution and By Laws	Bruce Putman
Membership, Ethics, & Certification	Bill Kreznor
Certification Board	Mary Kluz
Public Relation & Education	Don Fehrenbacher
Program	Ron Collman
State Soil	Bob McLeese
Ad-Hoc Historic	Les Bushue
Newsletter	Pat Kelsey
Nominations	Pat Kelsey

### WELCOME TO NEW MEMBERS

Debra Decker is a County Sanitarian with the Henry County Health Department in Geneseo. She earned B.S. degrees in Biology and Geography at Augustana College in 1991. She has noted an increased use of

soils information by Henry County and neighboring health departments. Ms. Decker has been continuing her education by, among other things, taking a soil classification class at Blackhawk College. She resides in Sherrard, Illinois and joins ISCA as an Affiliate Member.

Jeffrey Nichols joins ISCA as a Student Member. He is pursuing a B.S. degree in Geography-Natural Environmental Systems at Northern Illinois University in DeKalb. Mr. Nichols anticipates graduating in the Fall of 1997. He resides in Lemont, Illinois.

### WISCONSIN SOCIETY OF PROFESSIONAL SOIL SCIENTISTS AND ILLINOIS SOIL CLASSIFIERS ASSOCIATION JOINT MEETING

Seward Bluffs Forest Preserve  
 16999 Comly Road  
 Winnebago County, IL  
 June 6, 1997

#### Agenda

10:00am Concurrent Business Meetings  
 WSPSS Grove Creek Shelter House/Seward Bluffs

ISCA Oak Ridge Shelter House/Seward Bluffs

11:30am WSPSS and ISCA  
 Oak Ridge Shelter House

15 Minute Presentations by Representatives of WSPSS & ISCA

12:00 Lunch  
 Oak Ridge Shelter House

*Brats, burgers, buns, drinks, etc. will be provided. Bring a dish to pass.*

1:00pm Field Site Tour

The site is a loess covered upland with Tama, Muscatine and Troxel soils. The loess cover is thin in some areas, (approximately 4 feet), however, most of the area has 5 or more feet. Deep loess soils have not been mapped east of Winnebago County so the relative thinness of the loess in this area is not unusual.

The discussion will concentrate on the depth to chroma 2 colors. Most of the counties to the south of Winnebago felt depth to chroma 2 colors varied from approximately 24 to 47 inches in the Tama Series (36B Map Unit). The northern Illinois counties of Stephenson, Carroll, Ogle and Winnebago are exceptions to this. Surveys in these four counties felt the Tama Series was better drained with no evidence of seasonal saturation in the upper 60 inches. Perhaps discussion between the two states will lead to a better understanding of the series internal drainage. In Illinois, there appears to be a trend that Tama mapped in the northern two tiers of counties is better drained than that mapped just south. Does this match Wisconsin's findings?

At least one pit will present a thinner loess cap underlain by dense glacial till. Water appears to be perched over the till and into the loess. Other pits will show deeper loess soils that have some evidence of seasonal saturation at less than 60 inches.

2:00 PM Discussion and Adjourn

Contact Bob Oja to reserve a space for this meeting or mail him the attached form.

-----  
**PROCEDURES FOR REVISION OF FIELD INDICATORS OF HYDRIC SOIL CRITERIA, NATIONAL LIST OF HYDRIC SOILS**

Revision Procedure:

1. Anyone can initiate changes, additions, and deletions to the Indicators, Hydric Soil Definition, Hydric Soil Criteria, and National List of Hydric Soils by contacting Russell Pringle. Documentation for changes, additions, and deletions should include data such as water table data, saturation data, redox potential measurements,  $\alpha$  dipyrindyl test results, soil pedon descriptions, and vegetative data.

Russell F. Pringle  
NRCS/Louisiana State University  
104 Madison B. Sturgis Hall

Baton Rouge, LA 70803-2110  
504-388-1337  
FAX: 504-388-1403  
E-mail: rpringl@lsuvm.sncc.lsu.edu

2. Anyone needing assistance in collecting the right kinds of data, understanding data collected, or related Indicators, definition, criteria, and hydric soil list assistance should contact Wade Hurt, NRCS National Leader for Hydric Soils.

Wade Hurt  
NRCS/University of Florida  
P.O. Box 110290  
Gainesville, FL 32611-0290  
352-392-1951  
FAX: 352-392-3902  
E-mail: gwhurt@aol.com

3. The NTCHS Subcommittee for Field Indicators will make recommendations to the NTCHS on any suggested changes, additions, or deletions to the Indicators, Hydric Soil Definition, Hydric Soil Criteria, and National List of Hydric Soils by writing to Michael Whited, Chair NTCHS.

Michael Whited  
NRCS/University of Nebraska  
East Campus  
Lincoln, NE 68583-0822  
402-437-5178, ext. 37  
FAX: 402-437-5712  
E-mail: pwhited@unlinfo.unl.edu

4. The NTCHS will act on all recommendations concerning the Indicators, Hydric Soil Definition, Hydric Soil Criteria, and National List of Hydric Soils. Persons providing recommendations will be notified of action by the NTCHS.

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**THE REAL DIRT:  
SOIL SOLD TO SUPPRESS APPETITE**  
Chicago Tribune, Monday, October 7, 1996  
Business Section

Since many of us work in offices and office work is essentially sedentary, it's no surprise that 48 million Americans collectively; spend \$30 billion to \$50 billion yearly on weight-reduction efforts.

There are pills, powders, potions, elixirs, prepared low-cal meals and starvation diets.

So Deerfield's Janet Merel dug into the problem and came up with a down-to-earth solution.

Doing business as Diet Dirt Excavations Inc. (1-888-DIET DIRT), she sells for \$10 apiece bags of sterilized dirt that soft-willed dieters can sprinkle over high-calorie foods to make them totally repugnant. The label says it is "fresh ground" and "really gnarly stuff" with no fat, cholesterol, sugar, carbohydrates or sodium.

It comes in one flavor--"decadent decay."

Merel got the idea for the product a few years ago when visiting Disney World and listening to a friend complain about gaining weight while she ate a sundae. She instantly suppressed her friend's appetite by scooping up a handful of dirt and sprinkling it over the sundae.

It's a gag gift in more ways than one.

Submitted by: Bill Kreznor

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**GLOBAL SOIL RESOURCES**  
**A digital information base on soils**

The knowledge base about the distribution and properties of global soils has increased markedly during the last few decades but the information is not readily available to the scientific and, specifically, the teaching community. The explosion in information technology, the ability to develop and distribute multimedia products at low costs, and the wide-spread use of personal computers, provides an unique, opportunity to disseminate such information in an efficient and cost-effective manner. We hope to develop a product that will have about 2,000 images with appropriate supporting text and data on a CD-ROM. A software interface enables the user to search and select the subjects and groups of slides that are of interest for viewing; or reproduction. The CD-ROM can be used in a Computer Kiosk with self-running presentations. If appropriate and desired, a Musical Instrument Digital Interface will be linked to the Presentation. The final Presentation will be made available as hard copy, a CD-ROM, or inserted on a Web-site. Included on the CD-ROM, Adobe Acrobat Reader software will be used to access the presentation. Each module will be a separate portable Document Format (.pdf) file, with text links to images, charts, maps, and data, allowing for easy navigation within the document. The slide set will also be available in hypertext markup language (HTML) format via World Wide Web. In this format, anyone with Internet access will be able to retrieve, copy, and

reproduce the information. The HTML version can be continually updated to include state of the art information.

*We Seek Your Assistance*

We are making a call around the world for slides. We also need slides from each of the States in the US and for this we seek your help. To be able to select the best and also to illustrate as many Great Groups and features in Soil Taxonomy, we need a large set. We are hoping to receive about 50-100 slides from each State depicting the soils. Additional pictures of landscape and land use or close-ups of special features in the soil will be very helpful. Please do not send us the originals. Indicate your name on each slide so that we can contact you for the original when we are ready to digitize. Please also indicate the classification of the soil or information about the feature being illustrated. Please send this at your earliest convenience to:

Mr. Paul Reich  
World Soil Resources  
USDA NRCS  
PO Box 2890  
Washington D.C. 20013  
Tel: (202)690-0037  
Fax: (202)720-4593  
E-mail: preich@usda.gov

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**MEMORANDUM OF UNDERSTANDING**  
**Between the**  
**NATIONAL SOCIETY OF CONSULTING SOIL**  
**SCIENTISTS, INC.**  
**and the**  
**U.S. DEPARTMENT OF AGRICULTURE**  
**NATIONAL RESOURCES CONSERVATION**  
**SERVICE,**  
**Related to:**  
**Participation and Membership in The National**  
**Cooperative Soil Survey Program and Identifying**  
**Criteria and Standards for Soil Investigations,**  
**Interpretation, and Consultation in the Public and**  
**Private Sectors**

This Memorandum of Understanding (MOU) is made and entered into between the National Society of Consulting Soil Scientists, Inc. (NSCSS, Inc.) and the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS).

**I. Purpose**

**A.** To foster a cooperative effort between the NSCSS, Inc., and the NRCS Soil Survey Division, and

Specifically the National Cooperative Soil Survey (NCSS) program.

**B.** Establish a mechanism to enable direct representation of private sector consulting soil scientists, as represented by the NSCSS, Inc. in the NCSS.

**C.** Provide mutual assistance and consultation in identifying and delineating the obligations and roles of public and private sector soil scientists.

## **II. Scope**

**A.** Establish membership status of the NSCSS, Inc. in the NCSS.

**B.** Promote involvement and commitment of members of the NSCSS, Inc. to the various NCSS committees, including, but not restricted to, the Steering Committee.

**C.** Allow the participation by the private sector professional soil scientists from the NSCSS, Inc., to develop standards, guidelines, recommendations, and procedures in matters relating to site-specific soil data development and interpretation, variously referred to as "high resolution; high intensity; site-specific; and Order One Soil Surveys (as defined in the Soil Survey Manual); soil investigations; and specific-purpose soil investigations."

**D.** Coordinate efforts by the NSCSS, Inc. and the USDA-NRCS for identifying the roles and obligations of publicly employed soil scientists and/or technical specialists and private consulting soil scientists.

**E.** Develop clearly defined communications in understanding the roles of, and thereby reducing the potential of conflicts between, public and private sector soil scientists in providing soil information, technical services, and assistance.

**F.** Provide for the development and sharing of information databases developed and maintained by the NRCS Soils Division and private sector soil scientists as represented by NSCSS, Inc.

**G.** Place the NSCSS, Inc. national office on the mailing list for directives and technical memoranda, pertaining to Soil Survey, from the USDA-NRCS headquarters.

**H.** Encourage participation and input by public sector professional soil scientists in committees, conferences, and membership of the NSCSS, Inc.

## **III. Conditions**

**A.** This MOU specifies a means by which each of the signatory parties shall cooperate. Though it is assumed there will be costs and time commitments related to this MOU, it is neither a fiscal nor a funds obligating document. Any endeavor involving reimbursement or contribution of funds between the parties to the MOU will be handled in accordance with applicable laws, regulations, and procedures including those for Government procurement and printing. Such endeavors will be outlined in separate agreements that shall be made in writing by duly authorized representatives of the parties and shall be independently authorized by appropriate statutory authority.

**B.** This MOU will be reviewed and updated from time to time, as necessary, once every five years to ensure the relevance of its' scope without the need to redefine and reestablish a new document, unless the purpose of the document is to be significantly changed.

**C.** This MOU does not have a renewal or expiration date and shall remain as an understanding between the signatory parties indefinitely. This MOU may be terminated by either party, in whole or in part, with a 90-calendar-day written notice to the other party.

**D.** This MOU is hereby activated by the undersigned, responsible representative of NSCSS, Inc. and NRCS.

*Signed by:*

Paul W. Johnson, Chief, NRCS, 12-17-96

Mark S. McClain, President, NSCSS, Inc., 1-2-97

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**COMING SOON!  
ISCA FALL TOUR  
JOINT MEETING WITH INDIANA  
OCTOBER 9 & 10**

*HYDRIC SOILS -- WEST CHICAGO PRAIRIE AND  
JASPER-PULASKI WET SOILS SITE*

Details in the summer newsletter....

## **WSPSS AND ISCA JOINT MEETING**

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**Seward Bluffs Forest Preserve  
16999 Comly Road  
Winnebago County, IL  
Friday June 6, 1997  
at 10:00am**

Name: \_\_\_\_\_

Address : \_\_\_\_\_

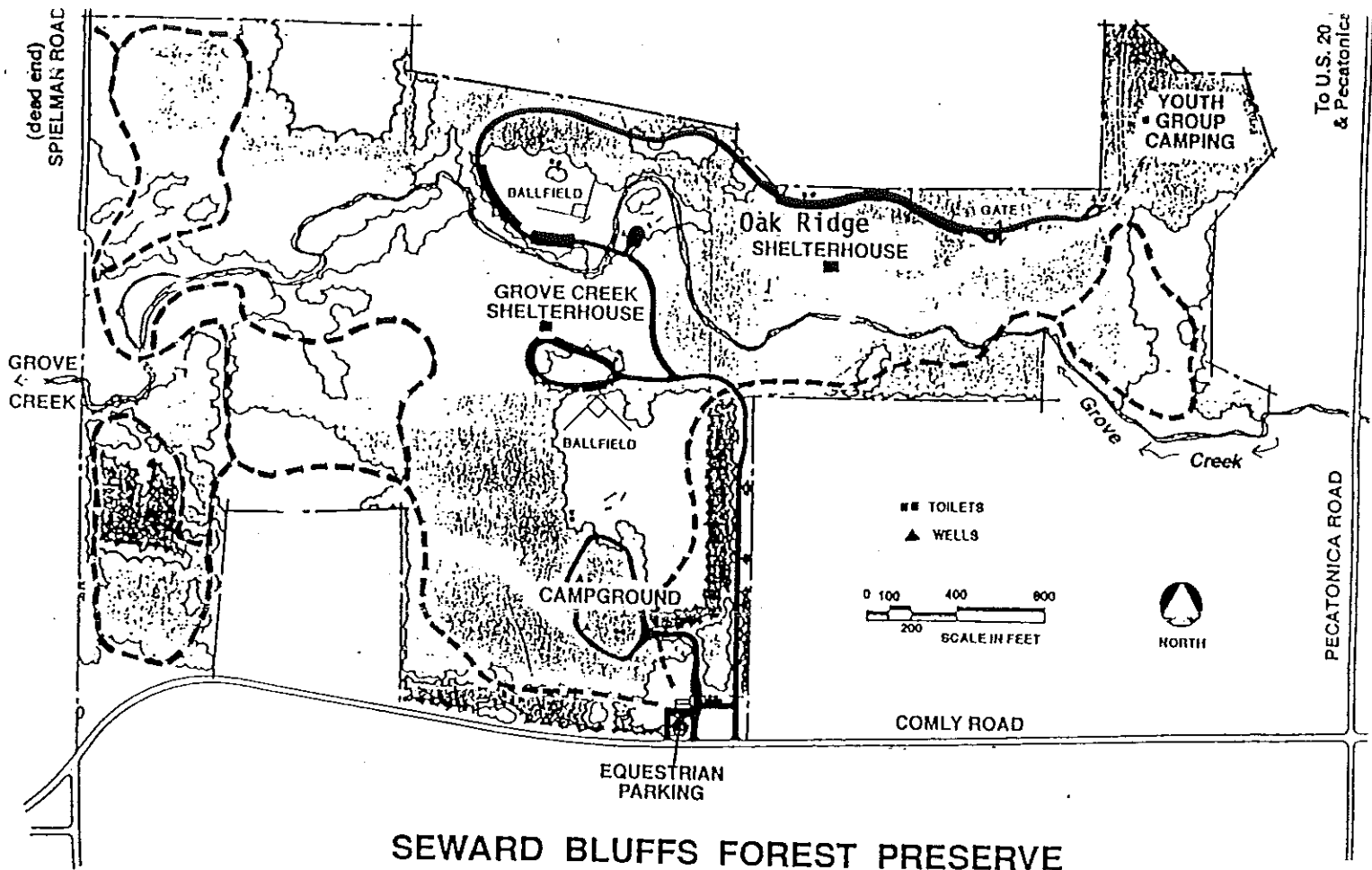
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Phone Number : \_\_\_\_\_














**Please RSVP by Friday May 30, 1997 to:**

**Bob Oja  
230 N. Fifth Ave.  
Walworth, WI 53184**

**PHONE (815) 338-0099  
FAX (815) 338-7731**



## SEWARD BLUFFS FOREST PRESERVE

KEY			
	HARDWOODS		SHELTERHOUSE
	CONIFERS		TOILETS
	PUBLIC ROAD		WELL
	SERVICE ROAD		PLAYGROUND
	GATE		BALL FIELD
	BUILDING		PAY PHONE
	HIKING TRAIL		EQUESTRIAN TRAIL
			EQUESTRIAN PARKING

### SEWARD BLUFFS FOREST PRESERVE 16999 COMLY ROAD

**Directions:** 12 miles west of Rockford on Hwy. 20 to Pecatonica Rd., south 1 mile to Comly Rd., west 1½ mile.

**Description:** 202 acre preserve - 2 ballfields, playground equipment, stream (Grove Creek), toilets, water. 50 site campground with electricity & dump station.

**Oak Ridge:** Stone shelter on north side of preserve. 8 tables, 48 people. Horseshoe pits. No electricity.

**Grove Creek:** Stone shelter on south side of preserve. 5 tables, 30 people. Horseshoe pits. No electricity.

**NOTE:** Preserve closes 1/2 hour after sunset.  
All reservations are subject to the GENERAL USE REGULATION ORDINANCE.



# ILLINOIS SOIL CLASSIFIERS ASSOCIATION

## 1997 SUMMER NEWSLETTER

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### MESSAGE FROM PRESIDENT

BUSY, BUSY, BUSY! Every classifier I have spoken with lately is very busy. NRCS classifiers are trying to keep up with a massive workload of updating and digitizing surveys. The new Illinois Private Sewage Code and wetland regulations have downstate classifiers scrambling to keep up with new clients. The expertise that soil classifiers possess is valuable. We are endeavoring to keep our skill level high with training sessions this past June and our upcoming fall meeting. We have also committed time and finances toward the soil display at the Farm Progress Show. I want to personally thank the classifiers who make these programs successful. In August, we appointed Don Fehrenbacher to serve on the Advisory Commission established by House Bill 552. This commission evaluates the effectiveness of the existing code. We are pleased that the state recognizes our expertise. Don will do a great job and will probably be consulting with the membership on pertinent issues. See you at the fall meeting.

*Gerald Berning, President*

### WELCOME NEW MEMBERS

**Clayton Heffter** is a soil classifier employed by the S/E Group in Oak Brook, Illinois. He conducts wetland delineations/hydric soil investigations and performs on-

site investigations for land development projects. He earned his B.S. degree in Agronomy at Iowa State University. He has worked on the Project Soil Survey of Putnam County, Illinois, and in the private sector in the Northeast and the Chicago metropolitan area. He joins ISCA as a Full Member.

**Ronald Collman** has had his membership upgraded from Associate to Full. He has been an ISCA member since April 1994.

### JUST A REMINDER

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**Hydric Soils Tour of the Glaciated Upper Midwest  
Workshop Itinerary**  
**Illinois Soil Classifiers Association and  
Indiana Association of Professional Soil Classifiers**  
**in cooperation with**  
**The Morton Arboretum, USDA-NRCS, and  
Purdue University Department of Agronomy**  
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This field tour focuses on hydromorphic features in soils of natural wetlands. The relationship between site hydrology and soil development will be examined at natural wetlands in the glaciated upper Midwest. We will examine a palustrine wetland system in the Chicago metro region and a fine sand dunal system in Northwest Indiana. The tour will begin on Thursday, October 9, at the West Chicago Prairie and end on Friday, October 10, at The Jasper-Pulaski Wildlife Area.

#### Thursday, October 9, 1997

12:00pm Meet at The Morton Arboretum  
Thornhill Shelter  
12:30pm **Stop 1. West Chicago Prairie**  
Long term water table monitoring has been undertaken to assess the relationships between soils, plant communities, and site hydrology.  
Leaders: Patrick Kelsey and Thomas Hanzely  
3:30pm Depart for The Morton Arboretum  
4:00pm Meetings  
Illinois - Thornhill Shelter - Council Meeting  
Indiana - Thornhill Shelter - General Membership Meeting  
5:00pm Dinner (Provided - Brats, Burgers, Salads, etc.)

6:00pm Mike Whited - NRCS

Friday, October 10, 1997

8:30am **Stop 2. Indiana Wet Soils Monitoring Project.**

The Jasper-Pulaski Wildlife Area serves as one site in Indiana for the Wet Soils Monitoring Project. Here we will observe water relationships associated with fine sands in a dunal landscape which lies atop the Kankakee outwash plain. This is a strong contrast to the finer textured materials seen earlier in the tour.

Leaders: Don Franzmeier and Byron Jenkinson

12:00pm Depart

**Questions about registration and/or Concerns please contact:**

Pat Kelsey at (630) 719-2417 or E-mail at pkelsey@mortonarb.org

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## CLASSIFICATION CHANGES

The following change has been approved to the "s suffix". Please share this information with the cooperators in your state.

*s* illuvial accumulation of sesquioxides and organic matter

This symbol is used with B to indicate an accumulation of illuvial, amorphous, dispersible organic-matter-sesquioxide complexes if both the organic matter and sesquioxide components are significant, and if either the color value or chroma, moist, of the horizon is four or more. The symbol is also used in combination with h as "Bhs" if both the organic-matter and sesquioxide components are significant, and if the color value and chroma, moist, is three or less.

The following horizon designations and suffixes have been approved. Each state soil scientist should inform the cooperators in their respective state.

### Additions and changes to the suffixes

*j* Accumulation of jarosite

This symbol indicates an accumulation of jarosite. Jarosite is a potassium or sodium iron sulfate mineral that is commonly an alteration product of pyrite upon exposure in an oxidizing environment. Jarosite has a hue of 2.5Y or yellower and chroma of 6 or more, although chromas as low as 3 or 4 have been reported.

*jj* Evidence of cryoturbation

This symbol is used to indicate the presence of cryoturbation. Cryoturbation commonly is manifested by irregular and broken boundaries, sorting of rock fragments, and organic matter in the lower boundaries, especially along the boundary between the active layer and the permafrost table.

*ff* Dry permafrost

This symbol is used for layers or horizons that are colder than 0°C, but do not contain ice. It is not used for layers or horizons that have seasonal temperatures below 0°C.

### Change the following

From:

*f* Frozen soil

To:

*f* Frozen soil or water

### Additions to the master horizons

*W layer* Water

This is a layer of water within the soil. The water can be either frozen (Wf) or not frozen (W).

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## TECHNOLOGY POLICY PAPER

National Cooperative Soil Survey

from

Soil Survey Division

Horace Smith, Director

Mapping Procedures for Riparian and

Other Small Areas

June 1997

Interest has increased in recent years to map and describe the characteristics and properties of small areas on the landscape. Due to the scale of mapping these small areas cannot be shown as polygons on soil survey maps. To address the need for procedures to map small areas of significance, such as riparian areas, the following procedures are adopted for use in conjunction with soil surveys. **It should be noted that these procedures apply to mapping of any small, highly contrasting areas, not just riparian areas. This includes areas traditionally identified by spot symbols.**

Appropriate changes to the National Soil Survey Handbook (1996 edition) will accommodate these procedures, and will be distributed as soon as possible. This includes modifying the SSURGO digitizing procedures accordingly.

### IMPLEMENTATION

These procedures are optional for current ongoing soil surveys. All surveys begun from this date forward, will follow these procedures, where mapping of such areas are identified in the Memorandum of Understanding for the survey area.



## DESCRIPTION AND CORRELATION PROCEDURES

1. If the mapping of small areas is to be included as part of an ongoing soil survey, it will be so noted in the Memorandum of Understanding for the survey area. Mapping scale, mapping intensity, resources available, and the need for and use of information are to be considered in making this decision. It is recognized that this procedure may involve mapping these areas more intensely than other areas of the survey.

2. If these areas consistently occur in conjunction with another larger map unit, they will be identified as components of the larger map unit. Their setting and characteristics are to be adequately described. If they can not be described as a part of a larger unit, they are identified as separate units.

3. Descriptions of areas identified as having riparian value are made by an interdisciplinary team that will inventory and describe characteristics of the various resources present, such as soils, vegetation, wildlife, and hydrology. The characteristics of the site are recorded in the soil map unit description and any associated Ecological Site Descriptions. Templates for Ecological Site Descriptions for range and forestland may be found in the NRCS National Forestry Manual and the National Range and Pasture Handbook. Other agencies have similar templates included in their respective guidebooks such as the BLM document *Riparian Area Management TR 1737-7 1992 - Procedures for Ecological Site Inventory with Special Reference to Riparian- Wetland Sites*, (pages 103-114). The USFS document, *A Hierarchical Framework of Aquatic Ecological Units in North America (Nearctic Zone)*, also has guides for developing ecological site descriptions.

4. Areas that are too small to be shown on the maps as polygons at the scale of mapping are to be shown as point or line features. Generic marker and line symbols are used for all point and line features. Map symbols are attached to each point or line feature and shown on the maps.

5. Areas shown on maps as point or line features will be described, named, and correlated the same as traditional map units. The units will be included in the map unit data base. A different map symbol convention is useful to separate these units from symbols used for area features -- i.e., alpha vs. numeric symbols.

- Classify soils to the taxonomic level that can be supported by the documentation available.
- Populate the NASIS Map Unit Record (MUR) data base accordingly, including applicable soil, landscape, climate, and vegetation characteristics.
- Attributes populated are those needed to meet the needs of the customers.

- Record "line segment width" and "point feature area" in the database. These data elements have High, Low, and Representative Values to be used in calculating the area (acres) represented by the line segment or point feature. These data elements will be added to the NASIS data structure. Additional descriptive elements may be added as needed at a later date.

6. Digitizing procedures are included in Part 647, NSSH.

## IDENTIFICATION PROCEDURES -- RIPARIAN AREAS

We will not specifically identify these areas as "riparian areas." This designation is considered to be an interpretation based on the presence of soil, hydrologic, and vegetative features as outlined below. The map unit description and/or Ecological Site Description are used to indicate whether or not an area has riparian value.

Definitions for riparian areas used by the various agencies have many commonalities, but may be applied differently by the agencies to address their respective agency mission. To map such areas, the following identification criteria have been identified. They are general statements that may be made more specific as needed for the local area, such as the Major Land Resource Area or Ecological Subsection. The presence of all three criteria are considered essential for riparian areas.

### Soil Criteria

Soils in natural riparian areas generally exhibit distinct features that are influenced by flooding and/or a water table. Riparian soils will typically have free water (water table) available for plant use at some time during the growing season.

### Hydrology Criteria

Hydrologic characteristics of riparian areas include flooding and/or free water in the rooting zone. Flooding and/or free water are present at a frequency and duration sufficient to influence plant community composition. Riparian areas are associated with watercourses and/or water bodies.

### Vegetation Criteria

The kind, size, and amount of current or potential vegetation reflect the influence of soil and hydrologic characteristics, and contrast with adjacent upland vegetation.

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***Editors Note***

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