

18th World Congress of Soil Science

Welcome

On behalf of the sponsors, the U.S. National Committee for Soil Science of the U.S. National Academy of Sciences, the Soil Science Society of America, and the International Union of Soil Sciences, we welcome you to the 18th World Congress of Soil Science (WCSS). We are delighted to host the Congress in the USA for the first time since 1960.

With the World Congress of Soil Science theme, "Frontiers of Soil Science: Technology and the Information Age", the scientific program focuses on soil science advances with an emphasis on remote sensing, geographic information systems, landscape analysis, state-of-the-art molecular scale analytical techniques, environmental soil biology, plant/soil interface processes, computer and computational modeling of soil processes and reactions, precision agriculture, and other applications of information science and technology. The technical program includes over 2700 oral and poster presentations in which Divisions, Commissions and Working Group convenors/co-convenors have assembled into 83 oral and poster symposia. There are also IUSS Council Meetings and Division, Commission, and Working Group Business Meetings during the week.


The must-see opening session on Monday will open with one of America's most illustrious historical figures, Benjamin Franklin, the great inventor, publisher, politician and diplomat, who is celebrating his 300th birthday. Other opening speakers include Michael Clegg, Foreign Secretary of the U.S. National Academy of Sciences; Ambassador Kenneth Quinn, recognizing the 2006 World Food Prize Laureate who is a soil scientist; Bruce Knight, Chief of the Natural Resources Conservation Service (NRCS); and Ed de Mulder, Past President of the International Union of Geological Sciences, discussing the Year of Planet Earth (YPE) initiative. The plenary address will be given by Jeffrey D. Sachs, the noted economist at Columbia University and author of the acclaimed book, *The End of Poverty*. Professor Sachs is the Director of the Earth Institute at Columbia and serves as Special Advisor to UN Secretary-General Kofi Annan on the Millennium Development Goals.


Two must-attend social events are the Sunday evening opening reception and Thursday evening Gala Banquet. The opening reception will be held in the historic Grand Hall of the Convention Center, in the beautifully renovated Reading Terminal train shed. This is an opportunity for you to gather with your colleagues for food and fellowship, renewing old acquaintances and making new friends. The historical, cultural, athletic, and ethnic flavors of the City of Brotherly Love will be featured including its food and entertainment. Be on the lookout for Ben Franklin or a strutting mummer.


The Gala Banquet will be an exquisite affair with good food, fellowship, presentation of awards, entertainment, dancing, and fine wine for all. Our entertainment for the evening, the Mahoney Brothers, will take us on a stroll through the history of Rock and Roll. The Dokuchaev Basic Soil Science Award, the Liebig Applied Soil Science Award, and Kubienna Medals will be presented at this event. Additionally, new Honorary Members of IUSS will be recognized.

Finally, we encourage you to discover the wonderful historical, cultural and culinary attractions while you are in the City of Brotherly Love. Don't miss out on a number of local tours on Wednesday, and a host of companion and family cultural/historical activities that are available during the week.

We wish all of you an enjoyable and rewarding week in Philadelphia!


Don Sparks
IUSS President


Gary Petersen
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Larry Wilding
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18th World Congress of Soil Science With Appreciation

IUSS gratefully acknowledges our corporate sponsors and individual donors

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CITY OF PHILADELPHIA

Proclamation

For the first time since 1960 the world's leading professionals in soil science will come together in the United States at the 18th World Congress of Soil Science. This prestigious gathering of professionals will take place in America's most historic city, Philadelphia.

Philadelphia is pleased to serve as the Host City for this major event. Your organization is to be congratulated for leading the way in soil science education and research. Furthermore, your members are helping to advance the discipline and practice of soil science by acquiring and disseminating information about soils in relation to crop production, environmental quality, recycling, and intelligent land use. Philadelphia supports the worthwhile mission of the WCSS and its members and welcomes you to the City of Brotherly Love and Sisterly Affection.

THEREFORE

I, John F. Street, Mayor of the City of Philadelphia, do hereby proclaim July 9 -15, 2006 as

WORLD CONGRESS OF SOIL SCIENCE WEEK

in Philadelphia and am happy to join with the 18th World Congress, Soil Science Society of America, the International Union of Soil Sciences, and the U.S. National Committee for Soil Science of the National Academy of Sciences in recognizing the significance of this gathering of the world's leading professionals in soil science.



JOHN F. STREET
Mayor

Given under my hand and the Seal of the City of Philadelphia, this ninth day of July, two thousand and six.



United States Department of Agriculture

Office of the Secretary
Washington, D.C. 20250

18th World Congress of Soil Science
July 9 - 15, 2006
Philadelphia, Pennsylvania

On behalf of the United States Department of Agriculture (USDA), I want to extend warm greetings to all the participants of the 18th World Congress of Soil Science (Congress). It has been 46 years since the Congress was held in the United States, so we are especially pleased that you are meeting in one of our Nation's finest cities — Philadelphia, Pennsylvania.

USDA cannot stress enough the importance of your work and the critical role you play in agriculture and the quality of our environment. The world is faced with concerns and challenges that soil scientists can and must address. Food production, food security, land degradation, water quality and quantity, plus the loss of some of our most fertile and productive soils to development are just some of the challenges facing all of us. Sustaining the world's natural resources has never been more important, and we are pleased and grateful that each one of you is helping to lead that charge.

My best wishes for a successful and productive Congress.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Johanns". The signature is fluid and cursive, with a long, sweeping underline.

Mike Johanns
Secretary

18th World Congress of Soil Science

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Working Group CR Cryosols

Chairperson	Sergey Goryachkin	Russia	sergey.gor@mail.ru
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Working Group LD Land Degradation

Chairperson	Bal Ram Singh	Norway	balram.singh@ipm.nlh.no
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Working Group RB Reference Base

Chairperson	Erika Micheli	Hungary	micheli@mkk.szie.hu
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Working Group SCA Saline Soils

Chairperson	Tibor Toth	Hungary	tibor@rissac.hu
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Working Group SCE Forest Soils

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Working Group SU Urban Soils

Chairperson	Wolfgang Burghardt	Germany	wolfgang.burghardt@uni-essen.de
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Awards

Dokuchaev Basic Soil Science Award

Victor Targulian has spent his 50-year scientific career striving to develop a pedology model as a basic Earth and Biosphere science. During that time, he has described the place and role of the pedosphere among the surface exogenic systems of the Earth and other terrestrial planets while formulating the concept of soil memory as a specific type of record of the biosphere-geospheres interactions.



Targulian has developed the general theory of soil system behavior in-time based on the concept of characteristic times of the specific pedogenic processes. He has also studied and revealed the main features of the weathering and pedogenic processes in arctic and boreal humid areas of the northern Eurasia, while developing the method of very detail-field mezo-morphological investigation in complex-organized soil bodies (Albeluvisols) and has studied their cutans assemblages as soil memory carriers and intrasoil barriers and membranes.



Liebig Applied Soil Science Award

Rattan Lal, Ph.D., professor of soil physics in the School of Environment and Natural Resources, and Director of the Carbon Management and Sequestration Center, FAES/OARDC at The Ohio State University (OSU), Lal served as a soil physicist from 1970 to 1987 at the IITA, Ibadan, Nigeria, conducting long-term experiments on land use, watershed management, methods of deforestation, erosion control, no-till farming, and agroforestry. Since joining OSU in 1987, he has worked on soils and climate change, soil degradation and global food security. He is a fellow of the American Society of Agronomy (ASA) Soil Science Society of America (SSSA), Third World Academy of Sciences, American Association for the Advancement of Sciences, Soil and Water Conservation Society (SWCS), and Indian Academy of Agricultural Sciences. He received the International Soil Science Award, the Soil Science Applied Research Award, and the Soil Science Research Award of the SSSA, the International Agronomy Award and Environment Quality Research Award and Carl Sprengel Agronomic Research Award of the ASA, the Hugh Hammond Bennett Award of the SWCS, and 2005 Borlaug Award. He was awarded an honorary degree of Doctor of Science from Punjab Agricultural University, India and of the Norwegian University of life Sciences, Aas, Norway. He is past president of the World Association of the Soil and Water Conservation



and the International Soil Tillage Research Organization, and President-elect of the SSSA. He was a member of the U.S. National Committee on Soil Science of the National Academy of Sciences (1998-2002) and Lead Author of IPCC (1998-2000). He has served on the Panel on Sustainable Agriculture and the Environment in the Humid Tropics of the National Academy of Sciences. He has authored and co-authored about 1100 research publications, in addition has written 9 and edited or co-edited 43 books.

2006 Kubiëna Medal

Dr. Herman Mùcher, one of three nominees for the Kubiëna Medal, 2006, was unanimously awarded the medal for his outstanding and innovative research based on a combination of meticulous observations in the field, in the laboratory, and in thin sections. During his early career, he founded the micromorphological laboratory at the University of Amsterdam, greatly improving preparation techniques. Recently, he has directed his research towards palaeosols, a theme that Kubiëna also probed. A most important aspect of his work has been his experimental approach toward sediment and soil transport as a basis for micromorphological interpretation of natural soils. During his career at the University of Amsterdam, he trained many graduate and postgraduate students, and was involved in all the Erasmus intensive courses on micromorphology until his retirement.

Kubiëna Medal Posthumous Award

Dr. A. Jongerius passed away in mid-life, shortly after the establishment of the Kubiëna Medal award. The Committee noted that, had Dr. Jongerius been nominated, he would have proved an outstanding candidate. Apart from his innovative and extensive scientific work, he was the *de facto* founder of the International Working Meetings on Soil Micromorphology, the driving force behind the International Working Group on Soil Micromorphology and the person who saw to the recognition of micromorphology as Subcommittee B of the ISSS. Had he survived to the present we are certain he would have actively supported the Commission 1.1 Soil Morphology under the new structure. The posthumous award of the Kubiëna Medal to the late A. Jongerius is seen as an expression of appreciation for his outstanding and pioneering contribution to soil micromorphology.

Honorary Members

WINFRIED E. H. BLUM earned his PhD in Natural Sciences in 1968 and became an associate professor in 1972, teaching soil science and serving as lecturer for clay mineralogy at the University of Freiburg, Germany, then became a visiting Professor and Director of a University Partnership Project at the State University of Paraná in Curitiba/Brazil. Since 1979 he has been Professor of Soil Science and Director of the Institute of Soil Research at the University of Natural Resources and Applied Life Sciences (BOKU) in Vienna/Austria. Since 2004 he has served as President of the European Confederation of Soil Science Societies (ECSSS). Blum was Chairman of the Commission of Soil Protection at the Council of Europe, Strasbourg/France (1989-1994) and Secretary-General of the International Union of Soil Sciences (IUSS) (1990-2002). He is a member of the Scientific Committee of the European Environment Agency (EEA), Copenhagen/Denmark (1994-2002). He has served as a Member of the Executive Board, of the Committee on Scientific Planning and Review (CSPR) and Chairman of the Standing Committee "Sciences for Food Security" of the World Council for Science (ICSU), Paris/France (1996-2002). He has served as Co-editor or member of editorial boards of 14 scientific journals and written about 450 publications in 9 languages in the areas of soil chemistry and mineralogy, land use, soil and environmental protection. He is an honorary member of several academies and national soil science societies, and has received numerous distinctions and awards.



HANS-PETER BLUME as a student of agriculture and chemistry earned his Doctoral of Agricultural Science degree at Kiel University. His career included serving as assistant professor for Soil Science, at Stuttgart-Hohenheim, and professor of Soil Science at the Department of Ecology, Technical University of Berlin (West). At the University of Kiel Dr. Blume has served as professor and director at the Institute of Plant Nutrition and Soil Science, and director at the Ecological Centre. His research has included "Stagnosols", desert soils in the Central Sahara, soil ecology, and Cryosols in Antarctica. He has served as President of the German Society of Soil Science, as a member of the ISSS committee on Standardization, as a member of ISSS-WRB and an honorary member of the Polish, Romanian, and German Societies of Soil Science. Dr. Blume is Emeritus Professor, Institute of Plant Nutrition and Soil Science, University of Kiel.



JOHAN BOUMA received his MSC and PhD degree at Wageningen University, the Netherlands, and served as a postdoc at the Soils Dept. University of Wisconsin in Madison, USA, studying soil disposal of septic tank effluent. In 1973 he became a UW Associate Professor with tenure. In 1975 he returned with his family to the Netherlands where he started the Department of Soil Physics at the Netherlands Soil Survey Institute (STIBOKA), becoming Deputy Director in charge of research in 1983. In 1986, he joined Wageningen University as Professor of Soil Inventarisation and Land Evaluation, a position from which he retired in 2004. His research covered water and solute movement in structured soils, relating soil morphology to flow patterns; development of pedotransferfunctions; effects of soil management defined in terms of phenoforms, to be derived from a given taxonomic soil-geniform; land use policy; and interactive research with stakeholders and policy makers. From 1998 to 2003 he was a member of the Scientific Council for Government Policy, a think-tank in the prime minister's office. He is a fellow of the SSSA (1983), an elected member of the Royal Dutch Academy of Sciences (1989) and a Korrespondierender Mitglied Deutsche Bdenkundliche Gesellschaft (1989).



SEONG-JIN CHO earned his PhD degree from Chungnam National University in 1967, specializing in soil fertility. He worked for 30 years as a professor of soil science and served for 4 years as the President of the Chungbuk National University, Korea, where he recently retired as an emeritus professor. During 1987 to 1988, Cho served as President of The Korean Society of Soil Science and Fertilizer. He organized a number of international symposia in soil sciences and related fields.



EM. PROF. JAN GLINSKI is a full member of the Polish Academy of Sciences. As the Director of the Institute of Agro-physiology in Lublin during 1982 to 2003, he was the initiator and active promoter of scientific cooperation with many universities and institutes in Poland and abroad and organizer of international conferences on agro-physiology. A member of the ISSS (since 1961) and vice-chairman of the Commission I (Soil Physics) of the ISSS (1986-1990) Glinski served as author or co-author of over 300 papers, 2 books (1985 and 1990), 26 monographs, 18 patents and 7 multilingual dictionaries of agro-physiology. He specializes in searching for soil erosion processes, soil chemistry, soil aeration and its role in agriculture and environmental protection, as well as soil-root interactions. He has been an active participant of 8 World ISSS Congresses (1960, 1964, 1974, 1978, 1986, 1990, 1994, and 1998) and served as Editor-in-Chief of the journal *International Agro-physiology* (since 1992).



MARCEL G.H. JAMAGNE, now Emeritus Research Director of the National Institute for Agronomic Research (INRA), was President of the French Soil Science Society from 1995 to 1999 and Vice-President of ISSS/IUSS from 1994 until 1998. He was co-organizer of the 16th World Congress of Soil Science in Montpellier in 1998. Born in Brussels, he served as Engineer of Agronomy and Forestry in 1955, and earned his Doctor in Sciences (PhD) in 1973. He worked in Soil Survey in Central Africa for four years, returning to France to INRA, Soil Science Department. In 1961, he initiated a specific method of detailed survey that has been used later on by many countries in Europe and Northern Africa. In 1968, he created the Soil Survey Staff of France and served as Director and kept this responsibility until 1997, when he was appointed Emeritus Director. Since the 1970's he has been national delegate and international expert for FAO, UNESCO, UNEP and the Council of Europe and the European Commission dealing with soil survey, use and conservation. He was nominated Chairman and general coordinator for the elaboration of the European Soil Geographic Database. He has professional experience in different regions of Europe, Africa, South America and Asia. Jamagne is still an active referee and reviewer for numerous editorial boards of scientific publications, and Chief Editor of the journal of the French Soil Science Society. He has been lecturer at different universities in Europe and South America. He is a Member of the Agricultural Academy of France and has received many awards during his career.



Donald R. Nielsen, Professor of Soil and Water Science at the University of California, Davis, taught soil physics courses, integrating chemical and biological processes. His research and that of his students included miscible displacement, microbiological transformations, scaling soil properties and analyzing field soil variability. While at Davis, he collaborated with 90 soil scientists from 40 countries. Nielsen retired in 1994, but he continues to visit and encourage young colleagues worldwide. He has served as president of Soil Science Society of America, American Society of Agronomy, Hydrology Section of the American Geophysical Union and Soil Physics Commission of ISSS. He is chair of the US National Committee of Soil Science.



J.H.V. VAN BAREN, a long-term officer and first class leader in the ISSS and IUSS, has made major contributions to the Soil Map of the World and has been instrumental in the establishment and development of the unique World Soil Museum (ISRIC) in Wageningen. Dr. van Baren joined FAO-Unesco, working on the FAO-Unesco Soil Map of the World. Its completion in the mid 1970s is by many re-



garded as an important milestone in soil science. Later, van Baren conducted soil surveys in Bangladesh for FAO for two years before being posted to Kenya to assist with the development of the national soil survey institute. With his Dutch colleagues, (a.o. Dr. W. Sombroek) the first soil reconnaissance of the whole country was made followed by detailed mapping of areas of high agricultural potential. van Baren collected and prepared soil monoliths during his tenure with the International Soil Museum (ISM, now ISRIC following the classification of the FAO-Unesco Soil Map of the World). These monoliths were the foundation of the unique ISRIC collection of today, with over 900 soil profiles. The transfer of the International Soil Museum from Utrecht to Wageningen took place in 1978. In addition to the work on monoliths, van Baren was concerned with developing the display of soil monoliths in the exhibition hall. This display was based upon the categories of the Legend of the FAO-Unesco Soil Map of the World, extending the fascinating work he began with Dr Dudal in Rome. van Baren started the book review section of the ISSS Bulletin in the early 1970s. Each year the number of reviews grew and in the 1990s, he reviewed 100 to 150 books annually for the Bulletin. Many readers of the Bulletins have indicated that they found the book review section the most useful and informative part of the Bulletin. Elected Deputy Secretary General of the ISSS in 1999, he became heavily involved in the day-to-day management of the society including its transformation to a union (IUSS). He has been supportive in national soil science societies, particularly in developing countries and has maintained a wide global network of soil scientists. In 2002, he officially retired from his Deputy Secretary General post of the IUSS, but he continues to review books for the IUSS Bulletin.

LARRY P. WILDING is Professor Emeritus, Soil and Crop Sciences Department, Texas A&M University, College Station, TX. He earned his PhD from the University of Illinois in 1962 and has served as a pedologist on the faculty of The Ohio State University from 1962 to 1976, as Visiting Professor at the University of Guelph, Ontario, Canada, from 1971 to 1972, and as Professor of Pedology at Texas A&M University from 1976 until his retirement in 2003. He has over 40 years of teaching and research experience in near surface geoscience processes, soil diversity, soil micromorphology, hydric soils, soil classification, Vertisol genesis, soil carbonate enrichment, soil carbon sequestration, surface mine reclamation, and international agriculture land use and development. He served as president of the Soil Science Society of America, charter member of the US National Committee on Soil Science, member of several NRC/NAS Committees, member of the Executive Committee of the American Geological Institute, Chairman of Subcommittee B (Soil Micromorphology) of the International Soil Science Society, Member of Statutes and Structure Standing Committee of the International Union of Soil Sciences, and currently serves as the co-chairperson of the 18th World Congress of Soil Science Organizing Committee. He is a registered Professional Soil Scientist and Professional Agronomist with ARCPACS, Soil Science Society of America, and Professional Licensed Geoscientist (Soil Scientist) in the State of Texas.



Congress Information

Language

English is the official language of the Congress.

Transportation

Taxi Cabs

A fleet of 1,400 cabs serves the area. Fare is metered. There is an additional charge for two or more passengers. Fare from the airport to Center City is a flat rate.

Local Transit System

The Southeastern Pennsylvania Transportation Authority (SEPTA), <http://www.septa.org/>, offers commuter service to Philadelphia's suburbs. Suburban Station and Market East regional rail stations are in the heart of the business, shopping and hotel districts. SEPTA also operates a large number of bus routes throughout the city and suburbs.

Parking

Parking is available at hotels and at lots located near the Convention Center.

Onsite Registration

WCSS Registration Center

On-site Registration services will be available from 9 am to 6 pm on Saturday, July 9, 2006 and from 9 am to 7 pm on Sunday, July 10. On-Site registration will also be available from 8 am to 5 pm Monday through Thursday, July 10-13 and from 8 am to 10 am on Friday, July 14.

Pre-Registration services will be available from 9 am to 6 pm on Saturday, July 9, 2006 and from 9 am to 9 pm on Sunday, July 10. Registration services will also be available from 8 am to 5 pm Monday through Thursday, July 10-13 and from 8 am to 10 am on Friday, July 14.

Badge

When you arrive on site, you will receive your registration materials and a badge that you must wear throughout the Congress and in the Convention Center. It is not possible to attend any sessions, exhibits, or lectures without your badge. Access to the opening reception, exhibit hall, and other Congress events requires badge identification.

Congress Business Office

The Congress will host a business office in Room 303A at the Pennsylvania Convention Center. Hours of the business office will be 8 am to 5 pm on Monday, July 10 through Friday, July 15, 2006. On Saturday and Sunday, July 8 and 9, 2006, business hours will be from 9 am to 7 pm.

Certificate of Attendance

Each registered participant will receive a certificate of attendance with their registration materials.

Exhibit Space

The exhibits are located in Hall A at the Pennsylvania Convention Center. Exhibit hours are 3:00 –7:00 pm on Sunday, July 9 and from 9:00 am–6:00 pm Monday, July 10, 2006 and Tuesday, July 11, 2006.

Press Room

Members of the media and public information officers will have access to the WCSS Press Room located in Room 302 of the Pennsylvania Convention Center. Press Room hours: 7:30am - 5:30 pm, Monday–Friday (closed Wednesday for tours), July 10–14. If your institution/organization has written a Press Release that covers the WCSS, these can be dropped off at the Press Room. Press/PIO contact: Sara Uttech, Soil Science Society of America, suttech@soils.org

Accompanying Person Lounge

A lounge for registered accompanying persons is located in the WCSS Registration Center on the second floor of the Pennsylvania Convention Center. It will be open 1 pm to 4 pm on Sunday, July 9 and 8 am –12 noon on Monday through Friday, July 10-14.

Message Board

Connect with colleagues through the message board, available in the WCSS Registration Center on the second floor of the Pennsylvania Convention Center.

Email Oasis

Computers with internet access are available for you to stay connected to home. The Email Oasis is located in Room 106 of the Pennsylvania Convention Center and will be open from 12 noon to 10 pm on Sunday, July 9, from 7 am to 10 pm on Monday through Thursday, July 10-11, and from 7 am to 6 pm on Friday, July 14. Please limit yourself to 10 minutes per visit to allow all attendees to utilize this service.

Congress Program

The Congress begins at 7 pm on Sunday, July 9 with the Opening Reception. Technical sessions begin at 8 am on Monday, July 10 with the Opening Session and continue through the week, ending on Saturday, July 15, with the Closing Session from 9 am to 11:30 am. Educational sessions will be held on the first floor of the Pennsylvania Convention Center with the exception of the Opening and Closing Sessions, which are held in the Grand Ballroom, located on the second floor of the Pennsylvania Convention Center. Poster theatre sessions provide an opportunity for poster authors to present a brief synopsis of their abstract that is available for viewing. Poster theatre sessions are held in the Exhibit Hall A throughout the congress.

Poster Location

An unprecedented number of poster abstracts are available for viewing at the World Congress of Soil Science. All posters will be available for viewing throughout the Congress. Posters 101-1976 are located in the Exhibit Hall A on the second floor of the Pennsylvania Convention Center. All other posters are located on the first floor of the Pennsylvania Convention Center. Posters 2001-2408 are located in Room 105, posters 2501-2806 are located in Room 104 and posters 2901-3516 are located in room 103. All poster abstract authors are asked to display a 2-hour period of time in which they will be available at their poster for discussion.

Speaker Ready Room

The Speaker Ready Room is located in Room 101 of the Pennsylvania Convention Center. All oral presenters are required to bring their presentations to the Speaker Ready Room by 4 pm of the day prior to their presentation. Presenters are able to review, edit and finalize their presentations prior to loading it onto the presentation management system. A computer specialist will be able to assist you in this process. Upon completion, your presentation will be loaded onto the computer in the meeting room in which you will be presenting. This process allows for a smooth transition between presenters within sessions. The Speaker Ready Room will be open from 12 noon to 6 pm on Sunday, July 9, from 7 am to 6 pm Monday through Friday, July 10-14.

Stamp Collection

A stamp collection is available for viewing near the WCSS Registration Center on the second floor of the Pennsylvania Convention Center. Viewing hours are consistent with hours in which the WCSS Registration Center is open.

Currency

Currency in the United States of America is the U.S. Dollar.

Credit Cards

Commonly accepted credit cards in hotels, restaurants, and shops and at the registration desk are Master Card, Visa, American Express, and Discover. Restaurants and shops generally display signs indicating which cards they accept.

Cash Dispensers (ATM)

Several automatic teller (ATM) or banking machines (ABM) are available in the Marriott Hotel, the Pennsylvania Convention Center, and at numerous locations in nearby businesses.

Tourist Information

Pick up a Visitor's Guide to Philadelphia at the Restaurant Desk in the WCSS Registration Center on the second floor of the Pennsylvania Convention Center. Tourist information is also available at <http://www.phillyvisitor.com/>.

The Restaurant Desk is also available to assist in making dinner reservations throughout the week.

Many Philadelphia businesses offer discounts to convention attendees. Please refer to the Show Your Badge and Save flyer included in your registration materials.

Communication

International Telephone Calls

If you will be making an international telephone call from Philadelphia to another country, please consider using phone calling cards. If you dial an international call from your hotel room without using a phone card, the rates will be very high. You can still use the phone in your hotel room to place the call, but do so by using a phone card. These cards are available in various drug stores on Market Street.

Internet Access

Wireless internet access is available in the Convention Center on a fee basis. The Organizing Committee will make arrangements to provide participants with a limited number of computers connected to the Internet.

Tourist Information

Information on additional activities in Philadelphia is available at <http://www.phillyvisitor.com/>.

Concessions

Concessions are available during lunch in the back of Hall A, Pennsylvania Convention Center, second floor.

University of Pennsylvania Dorms

UPA Dorm Guides

To better assist individuals staying at the UPA dorm, the WCSS has arranged to have graduate student volunteers available to lead groups of individuals to and from the UPA dorm through use of public transportation at specified times (please see schedule below). Volunteers will be wearing a burgundy WCSS polo shirt and a host ribbon on their name badge. The volunteer guide is a complimentary service, however, individuals are responsible for the \$2.00 one-way fee for public transportation.

To the Pennsylvania Convention Center

Meet the volunteer guide in the lounge on the first floor in the back of Hamilton College House. Guides will depart at the following times.

Sunday, July 9, 2006

8:30 am and 10:30 am

Monday, July 10, 2006

6:30 am, 7:30 am, 8:30 am, and 9:30 am

To the University of Pennsylvania (UPA) Dorm

Meet the volunteer guide in the WCSS Registration Area on the second floor of the Pennsylvania Convention Center. Guides will depart at the following times.

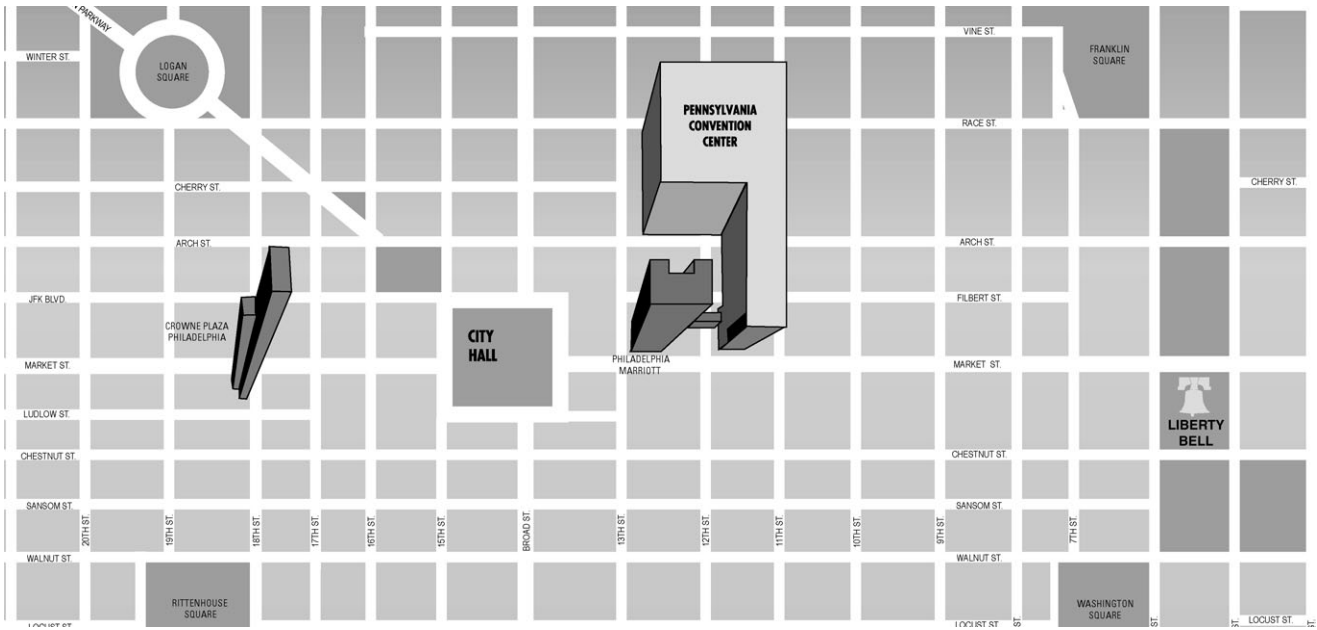
Sunday, July 9, 2006

4:30 pm and 6:30 pm
8:30 pm and 10:00 pm

Monday, July 10, 2006

4:30 pm, 5:30pm, and 6:30 pm

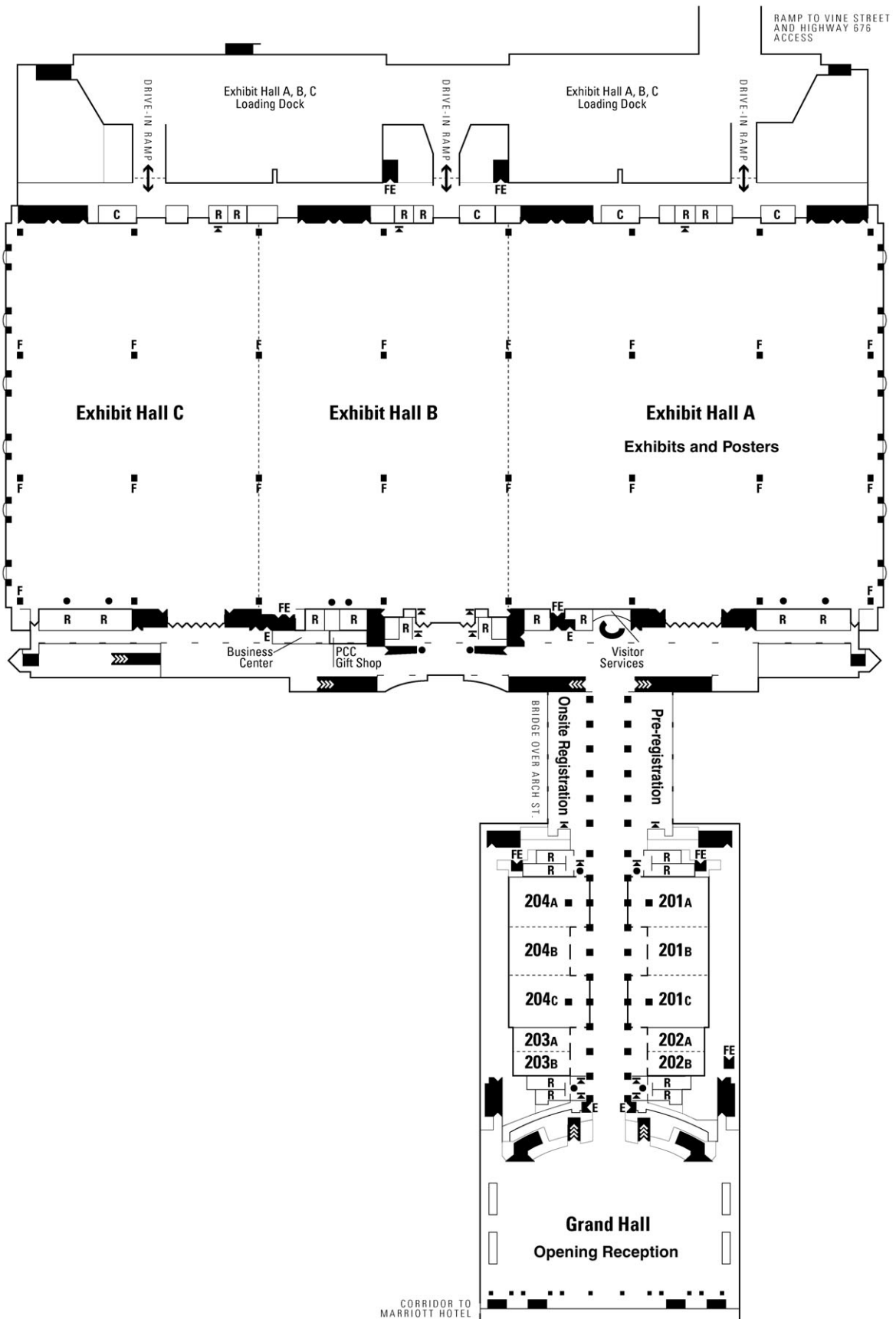
Downtown Philadelphia



Pennsylvania Convention Center | First Floor

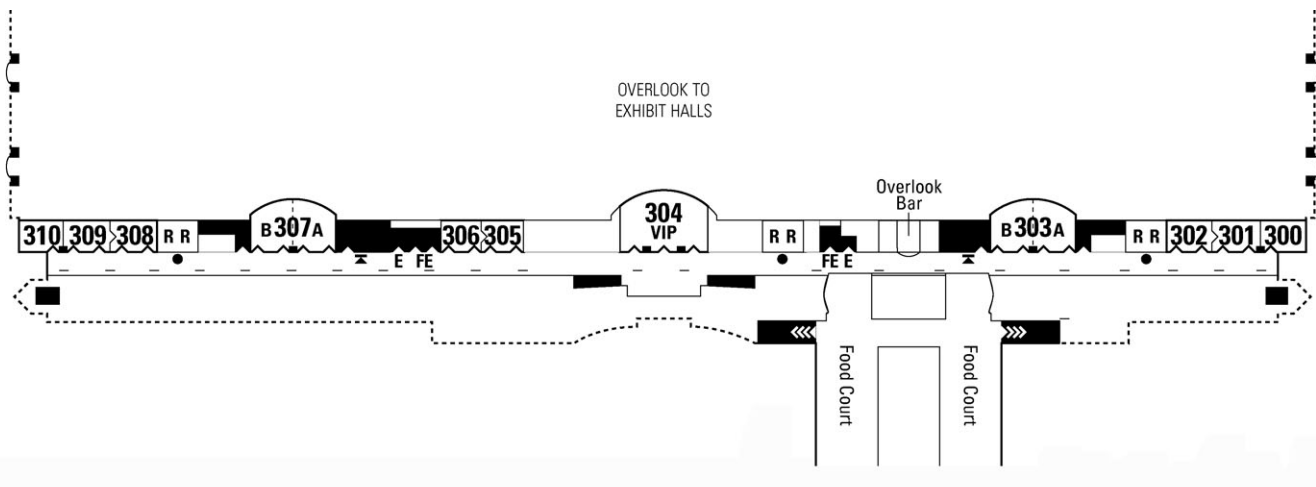


Pennsylvania Convention Center | Second Floor

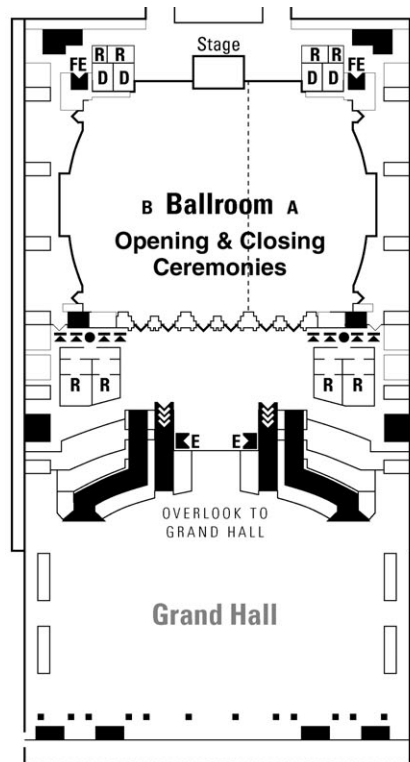


MAPS

Pennsylvania Convention Center | Third Floor

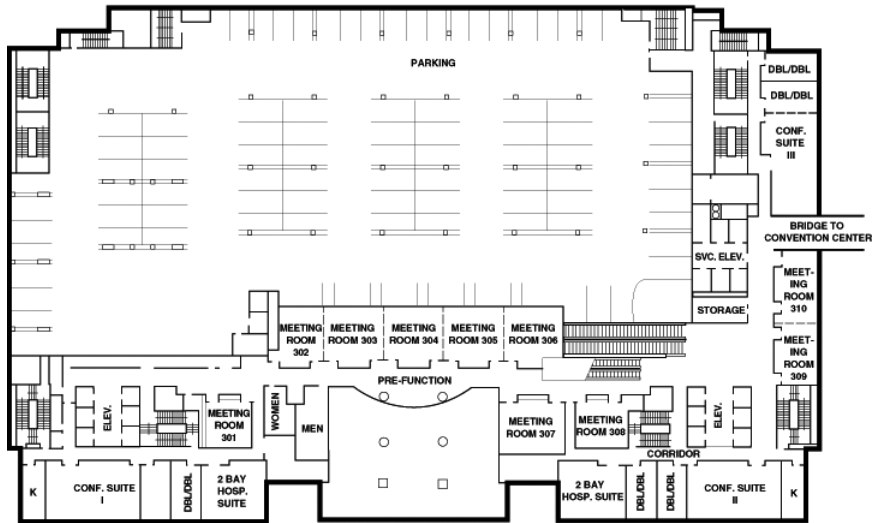


Pennsylvania Convention Center | Ballroom Level

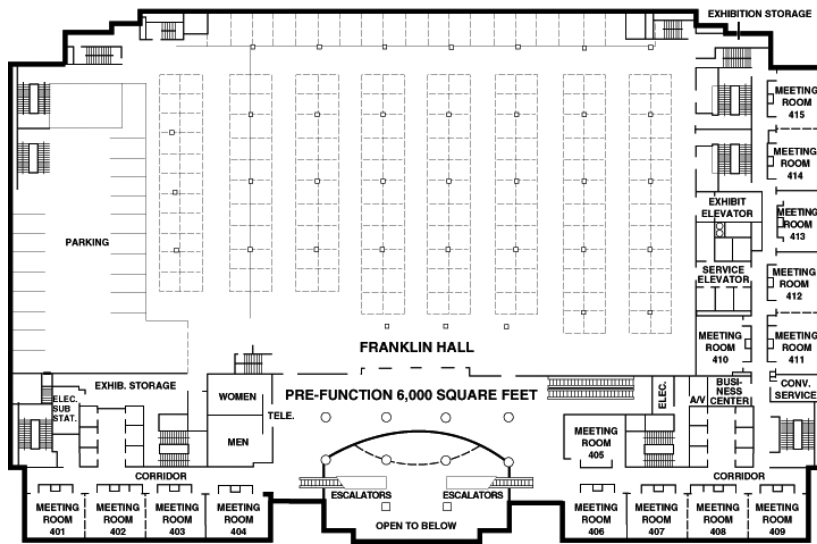


Philadelphia Marriott Downtown

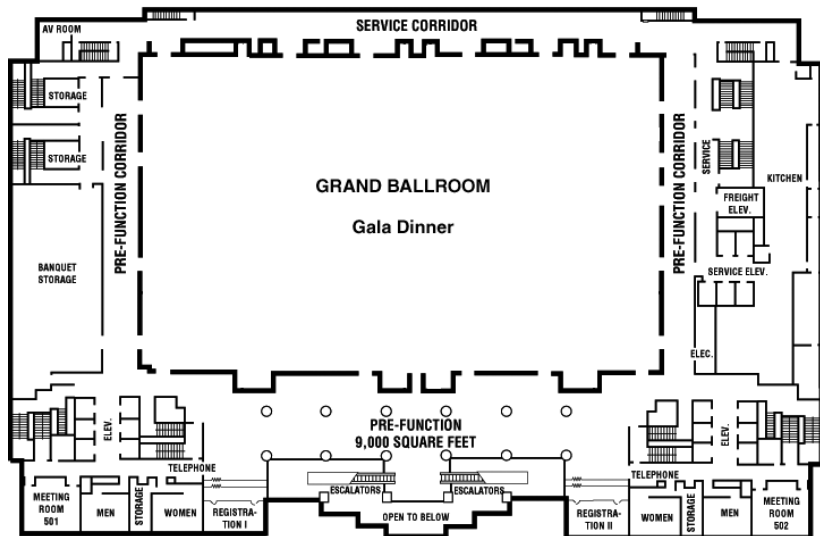
LEVEL 3 MEETING ROOMS



LEVEL 4 FRANKLIN HALL



LEVEL 5 BALLROOM



Tours and Workshops

Pre Congress

Tour 7—Acid Sulfate Soils of U.S. Mid-Atlantic/ Chesapeake Bay Region

Contact: Del Fanning, Univ. of Maryland (dsf@umail.umd.edu)
Tour Starts: July 6, 2006, in Philadelphia, PA
Tour Ends: Saturday, July 8, 2006
No. of Participants: Minimum 30; Maximum 45
Cost: \$550

This tour will bring together soil scientists with a strong interest in acid sulfate soils to demonstrate the kinds of acid sulfate soils, and societal environmental problems related to them, in the region surrounding the Delaware and Chesapeake Bay. A primary goal will be to show the wide variety of acid sulfate soils (potential, active, and post-active) that occur in this region. Potential acid sulfate soils, primarily Sulfaquents and Sulfihemists, occur as tidal marsh soils and as sub-aqueous soils in shallow bays. Many of the tidal marsh soils around Chesapeake Bay are “submerged upland” soils because of slowly (sea level rise of about 5mm/ year) subsiding landscapes. Active acid sulfate soils (Sulfaquepts, Sulfudepts and Sulfic Endoaquepts) occur primarily because of human disturbance of sulfidic materials. They occur in dredged materials in diked disposal areas and in uplands where Cretaceous and Tertiary sediments have been exposed by construction activities. Many of the native upland soils of this region, many of which are Ultisols by Soil Taxonomy, are post-active acid sulfate soils. Jarosite that formed thousands if not millions of years before present is found in the oxidized zone in which these soils exist. Pyrite occurs in the unoxidized zone that may be found at depths of 2 to 20 meters. These and other sulfur-bearing minerals (e.g. gypsum formed from carbonate shells) attest to the role that acid sulfate soil processes have played in the development of these soils. Iron “oxide” and silica cementation features from some of these soils are thought to have formed by acid sulfate soil processes. The need for improved acid sulfate soil education of engineers involved in construction activities in these landscapes will be pointed out.

Post Congress | **SOLD OUT**

Tickets are no longer available

Tour 1—Cryosols and Arctic Tundra Ecosystem

Formerly listed as a Pre Congress Tour
Contact: Chien-Lu Ping, Univ. of Alaska (pfclp@uaa.alaska.edu)
Tour Starts: July 16, 2006, at Fairbanks, AK
Tour Ends: July 22, 2006, at Fairbanks, AK
No. of Participants: Minimum 15; Maximum 20
Cost: \$2380

NOTE: Sleeping bags are required for the 4 night stay at Toolik Lake Station.

The tour will take participants through the boreal forest in the Fairbanks area of interior Alaska to view the effects of landform and slope aspect on soil formation. The interior Alaska is in the zone of discontinuous permafrost. The distribution of permafrost is controlled by drainage, slope and aspect, and vegetation succession after wild-fires. In Fairbanks near the University Campus the tour will lead the delegates to a catena in which the effect of slope and aspect on permafrost distribution is evident. Also in the area the delegates will see the result of land clearing 50 years ago in soils with ice lens and ice wedges. In addition, the tour will tour the Fox Permafrost Tunnel to study the formation of ice wedges and lenses from under the ground

surface. The construction of the pipeline and the engineering solutions to overcome permafrost hazards will be discussed. Further north, the tour will lead the delegates to cross the Arctic Circle and across the Brooks Range into the treeless arctic tundra of the North Slope of Alaska. The delegates will examine the non-sorted circle formation and the cryoturbated tundra soils on Arctic Foothills and the Arctic Coastal Plain. Infrastructure design to overcome potential problems caused by permafrost in the oil field on the arctic coast will be discussed. Here in northern Alaska, the delegates will experience 24 hours of sunlight and see wildlife along the way. The tour starts with a bus from Fairbanks and also ends in Fairbanks.

Mid Congress Tours

Wednesday, July 12, 2006

To purchase a ticket for a Mid Congress tour go to the WCSS Registration Center located on the Bridge, second floor at the Pennsylvania Convention Center. Tours depart from the 12th Street tunnel

Tour 19—The Rodale Institute ® Regenerative Agriculture Tour, Crystal Cave, and Cabela’s Outfitters

Contact: John Chibirka (john.chibirka@pa.usda.gov)
No. of Participants: Minimum 30; Maximum 45
Cost: \$180
Time: 8:00 am to 8:00 pm

For more than half a century, The Rodale Institute has promoted the message of “Healthy Soil, Healthy Food, Healthy People®” to a global audience. Situated on 333 rolling acres in Kutztown, Pennsylvania, this truly dynamic non-profit organization works to support the positive attributes of organic/regenerative agriculture locally, regionally and internationally, based on scientific assessment, practical application and outreach. The Farm Tour provides a guided look at the Farming Systems Trial, plus a unique opportunity to see organic no-till research, mycorrhizal fungi studies and use, composting, and compost tea technology. In addition, you will have the opportunity to visit the museum exhibit “Food Essence of Life” and The Institute’s Bookstore that sells a variety of gardening accessories and gifts.

Tour 20—New Frontiers in Soil Survey

Sponsor: Chester County Conservation District and USDA-NRCS
Contact: John Chibirka (john.chibirka@pa.usda.gov)
No. of Participants: Minimum 30; Maximum 90
Cost: \$170
Time: 8:00 am to 6:00 pm

We will travel through Southeast Pennsylvania to visit a MLRA Soil Survey Project Office and view the methods and technologies that are being used to update and maintain soil surveys on a Land Resource Area basis. Demonstrations will show how Geographic Information Systems, the National Soil Information System (NASIS), Global Positioning Systems, computer Stereo Analysis of landforms and digital soil maps, Spatial Analysis and other technologies are being used to update and maintain soil survey maps and data. The field portions of this tour will travel through Lancaster County looking at land use changes and their influence on soil properties, Farmland Preservation and provide demonstrations of soil survey field data collection using methods that include soil property measurements, GPS, non-invasive geophysical tools (Ground Penetrating Radar and Electro-Magnetic Induction) techniques. Comparisons of historic soil surveys and maps with modern soil survey data will be observed at the field sites.

Tour 21—Watershed Research & Management in Action

Sponsor: USDA-ARS

Contact: Andrew Sharpley (Andrew.Sharpley@ars.usda.gov)

No. of Participants: Minimum 30; Maximum 45

Cost: \$100

Time: 7:30 am to 6:30 pm

A one-day tour of the U.S. Department of Agriculture - Agricultural Research Service Watershed Management research facility at Klingerstown, Pennsylvania will be offered. This location is about 150 miles from Philadelphia; an approximate three-hour drive. At the location, tour members will be shown how ARS is investigating the impact of agricultural management on water quality in several watersheds. Demonstrations will be given of specialized equipment that quantifies surface and subsurface water movement and nutrient transport. Inspection pits of local soils will be available for viewing. Visits to local farms will also highlight current pressures and practical solutions to farming and of Best Management Practices that protect water quality. Stops during the trip to and from Philadelphia will be made highlighting state-of-the-art feed management for concentration animal feeding operations and its role in nutrient management planning strategies.

Tour 23—The du Pont Family Legacy

Sponsor: du Pont Company, Longwood Gardens, and University of Delaware

Contact: Gerald Hendricks (hendrick@udel.edu)

No. of Participants: Minimum 30; Maximum 45

Cost: \$100

Time: 8:30 am to 9:30 pm

A full day tour of ancestral homes of members of the du Pont family that currently showcase the history of industrial development and technology, horticulture, and American art history. We first visit Hagley Museum and Library. Located on 235 acres along the banks of the Brandywine River, Hagley is the site of the gunpowder works founded by E. I. du Pont in 1802. This example of early American industry includes restored mills, a workers' community, and the ancestral home and gardens of the du Pont family.

Next stop will be Winterthur, the former home of Henry Francis du Pont, an avid antiques collector and horticulturist. In the early 20th century, H. F. du Pont and his father, Henry Algernon du Pont, designed Winterthur in the spirit of 18th and 19th-century European country houses. We'll start with lunch, followed by the Elegant Entertaining Tour to experience elegant rooms where the du Pont family entertained, with some time allowed to wander through the 60-acre naturalistic Winterthur Garden.

The final stop is Longwood Gardens, one of the world's premier horticultural display gardens. Created by industrialist Pierre S. du Pont, Longwood offers 1,050 acres of gardens, woodlands, and meadows; 20 outdoor gardens; 20 indoor gardens within 4 acres of heated greenhouses; 11,000 different types of plants; and spectacular fountains. We will be treated to a behind the scenes tour of Longwood's Soil and Compost Facility, followed by time to explore the gardens, and finishing the day with dinner at the Terrace restaurant.

Tour 24—Cedar Meadows Farm & Lancaster County

Sponsor: USDA-NRCS and Lancaster County, PA

Contact: Ed White (ed.white@pa.usda.gov)

No. of Participants: Minimum 30; Maximum 45

Cost: \$165

Time: 7:15am to 7:00 pm

Steve Groff and his family farm 175 acres of vegetables and crops on hilly land in Lancaster County, Pennsylvania. He has pioneered the "Permanent Cover Cropping System", which includes no-tillage, cover crops, and effective crop rotations as a way to increase profits, enhance

soil and water quality, and reduce pesticides. The cornerstone of this system is a unique emphasis on maintaining a permanent cover of crop residues and cover crops on the soil surface and having something living in the soil at all times. All vegetables and crops are then seeded or transplanted into the organic mulch. This permanent cover aids in weed control, has virtually eliminated soil erosion on the farms 3-17% slopes, and has increased soil and water quality. This trip will travel through Pennsylvania Dutch County and Amish Farms, stop at a Preserved Farm in Lancaster County, Pennsylvania for a discussion of farmland preservation programs and a look at the soil profile of the famous limestone soils of Lancaster County. Then travel with a local tour guide to an Old Order Amish farm for a home cooked meal. The tour will then travel to Cedar Meadow Farm and hear about the no-till farming systems and research that has been conducted at the farm by Penn State University, University of Maryland, and the USDA-NRCS. At Cedar Meadow Farm the tour will also observe the soil profiles under long-term no-tillage, conventional cropping and woodland within the Pennsylvania Piedmont in Lancaster County.

(NOTE: lunch will be at an Amish Farm with no air conditioning, it can be very hot and humid in July)

Tour 26—New Jersey Pine Barrens Soils Ecology

Sponsor: Rutgers University and USDA-NRCS

Contact: Joseph Heckman (heckman@aesop.rutgers.edu)

No. of Participants: Minimum 30; Maximum 45

Cost: \$155

Time: 8:00 am to 6:00 pm

The tour will visit sites across the coastal plain of New Jersey to learn about the unique ecosystem known as the "Pine Barrens", or Pinelands. Native vegetation covering the infertile, droughty, sandy (Spodosol/Podzol) soils of this region is primarily pitch pine-scrub oak forest, growing no more than 2 meters in height in some places (Pygmy Plains). Specialty agriculture finding its niche in the area includes cranberry bogs and blueberry fields, which will be discussed at the Rutgers-NJAES/USDA-ARS Marucci Blueberry and Cranberry Research & Extension Center in Chatsworth. A stop at Batsto Village will illuminate the historical extraction of bog iron and production of glass from sand mines. Finally, a historic greensand mining region will be visited to examine the distinctive soils of glauconitic parent material. The tour will include a visit to a New Jersey winery.

Tour 27—Sustainable Systems and Crop Modeling Research at Beltsville Agricultural Research Center

Sponsor: USDA-ARS

Contact: V. R. Reddy (vreddy@asrr.arsusda.gov)

No. of Participants: Minimum 30; Maximum 45

Cost: \$135

Time: 7:30 am to 5:30 pm

This tour will encompass some of the sustainable systems and crop modeling research at the Beltsville Agricultural Research Center (BARC) in Beltsville, Md. The first stop of this tour will be at the Crop Systems and Global Change Laboratory's Soil-Plant-Atmospheric-Research (SPAR) facility. The Sunlit controlled environment chambers, known as SPAR chambers, have been built to evaluate plant responses to important environment and soil variables. The second stop will view cover crop research currently being conducted by the Sustainable Agricultural Systems Lab. Lunch will be served at the ARS National Visitors Center. The third stop is the long-term Farming Systems Project (FSP) which contains conventional cropping systems and organic cropping systems for sustainable production of field crops. The focus of this site is on changes in soil physical properties, nutrient dynamics, and biological communities in response to cropping system effects and spatially distributed landscape effects. The final stop will discuss research on glomalin and rhizosphere colonization.

Tour 28—Animal and Natural Resources Research at the Beltsville Agricultural Research Center

Sponsor: USDA-ARS

Contact: V. R. Reddy (vreddy@asrr.arsusda.gov)

No. of Participants: Minimum 30; Maximum 45

Cost: \$135

Time: 7:30 am to 5:30 pm

This tour will encompass some of the soil and water research being conducted at the Beltsville Agricultural Research Center (BARC) in Beltsville, Md. The first stop of the tour will be at the Hydrology and Remote Sensing Lab's (HRSL) OPE3 watershed study site. Research is being conducted to determine how farming methods can be altered for better long-term environmental and economic consequences. The second stop of the tour will be at the HRSL's and Natural Resources Conservation Service's Soil Climate Analysis Network (SCAN) site. This site is part of cooperative nationwide comprehensive soil moisture, soils and climate system to support natural resource assessments and conservation activities. Lunch will be served at the ARS National Visitors Center. The third stop will be at Environmental Management and By-Product Utilization (EMBU) Laboratory phytoextraction field test site. Natural metal hyperaccumulator plants will be shown growing on the metal rich soils. Raised bed plots with several ecotypes will illustrate the range of plant variation available for breeding improved cultivars for commercial phytoextraction. The final stop will be at the Beltsville Composting & Research Facility. You will learn about research by the Sustainable Agricultural Systems, Environmental Microbial Safety, and the EMBU labs that has led to development of criteria for pathogen reduction in manure compost, hybrid composting technologies, designer products, innovative uses, and novel delivery systems for field, landscape, and horticultural uses of compost in rural and urban settings.

Workshops

Measuring Water Content, Water Potential and Water Flow in Soils: A Short Course for Soil Scientists

Sponsor: Decagon Devices, Pullman, WA

Date: July 8, 2006

Cost: \$75

Location: Marriott Hotel, Room 401–402, Fourth floor

Time: 8:30 am–5:30 pm

Modern methods for measuring soil moisture will be presented, discussed and used. TDR, capacitance, and thermal probe measurements for water content; tensiometer, thermal, dielectric, and psychrometric methods for water potential; and tension infiltrometers and lysimeters techniques for hydraulic conductivity and flow will be presented. The material will be presented through lectures and short, hands-on lab sessions.

The Use of Nuclear Techniques in Addressing Soil-Water Nutrient Issues for Sustainable Agricultural Production

Sponsors: Food and Agriculture Organization and International Atomic Energy Agency

Date: July 9, 2006

Location: Pennsylvania Convention Center, room 107 AB, First floor

Cost: \$25 (fee waived with IAEA approval)

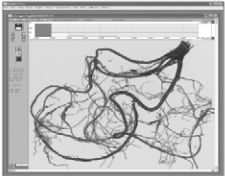
Time: 8:30 am–5:30 pm

The workshop will provide an excellent opportunity for participants to exchange information on nuclear techniques in agriculture and to attend the 18th World Congress of Soil Science Congress. The scope and issues to be addressed at the Workshop include: (i) The use of isotopic tracers and soil moisture neutron probes to quantify stocks and flows of carbon, nutrients, water and soil in cropping systems, (ii) The use of isotopic markers or tracers in germplasm selection or breeding programmes for enhanced tolerance to abiotic stresses, (iii) Soil carbon sequestration and conservation agriculture in mitigating soil erosion, fertility degradation and desertification, (iv) Agricultural water management and productivity (crop water productivity and agricultural water resource assessment or measurement) and (v) Integrated soil-nutrient management in agro-ecosystems (e.g., use of crop residues and fertilizer utilization efficiency and losses to environment). Additional information is available at www.18wcss.org. Applications for grants to attend the Workshop and conditions for grant applications can be obtained from IAEA (Official.Mail@iaea.org).


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Morphology, Architecture



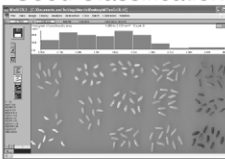
Growth
Monitoring in
Rhizotron




Nodules Area




Seed Classification



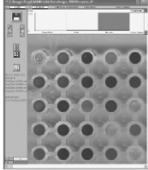
Seedling growth
in Petri Dish



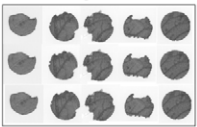
Necrotic Area
on Leaves



Colorimetric
Analysis



Foliar Disks'
Damaged Area



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Cultural Activities

Sunday, July 9

The Barnes Foundation

1:00–5:00 pm-based on availability.
Minimum 20; Maximum 23
Fee per Person: \$48.00*

The Foundation was established in 1922 by Dr. Albert Barnes "to promote the advancement of education and the appreciation of the fine arts". The Barnes Foundation houses one of the world's finest private collections of Post-Impressionist and early French modern art, including works by Renoir (180), Cézanne (69), Matisse (60), and Picasso, Monet and Manet. Art from every corner of the globe is grouped with fine examples of antique furniture, ceramics, hand-wrought iron and Native American jewelry. The gallery is located on a 12 acre arboretum on the Philadelphia Main Line and once was the home of Dr. Barnes.

Historic Philadelphia

1:00–5:00 pm
Minimum: 35; Maximum: 44
Fee per person: \$36.00*

King Charles II granted William Penn, an English Quaker, a parcel of land in the new World in 1682 as payment for a debt the Crown owed Penn's father. The city grew rapidly, becoming the second largest English-speaking city in the world just before the American Revolution. Philadelphia was the Revolutionary War capital, except for nine months during the British occupation. You will see the Liberty Bell, the hallowed symbol of our nation's freedom; see where the Declaration of Independence was adopted; Congress Hall where Congress sat while Philadelphia was the capitol of the United States from 1790 to 1800; Franklin Court, the site of the house and print shop of one of Philadelphia's most prominent citizens - Benjamin Franklin, and more.

Monday, July 10

Longwood Gardens

9:00 am–1:00 pm
Minimum: 35; Maximum: 44
Fee per person: \$50.00*

Longwood is sure to delight anyone who loves exquisite flowers, majestic trees, and opulent architecture. Here, amid 1050 outdoor acres and 20 indoor gardens, you'll find perfection at every turn. Spend some time enjoying the water gardens, arboretum, bonsai displays, desert house and much more at this duPont estate. Longwood is always in bloom! <http://www.longwoodgardens.org/>

Valley Forge

1:00 pm–5:00 pm
Minimum: 35; Maximum: 43
Fee per person: \$38.00*

Of all places associated with America's War for Independence, none conveys the suffering, sacrifice and ultimate triumph more than Valley Forge. Here you'll tour Washington Headquarters, visit the soldiers huts, see the Memorial Arch and visit the Memorial Chapel. Valley Forge is the story of an army's epic struggle to survive against terrible odds, hunger, disease and the unrelenting forces of nature. <http://www.valleyforge.org/vfspark.asp>

Tuesday, July 11

Historic Philadelphia

8:30 am–12:30 pm
Minimum: 35; Maximum: 44
Fee per person: \$36.00*

King Charles II granted William Penn, an English Quaker, a parcel of land in the new World in 1682 as payment for a debt the Crown owed Penn's father. The city grew rapidly, becoming the second largest English-speaking city in the world just before the American Revolution. Philadelphia was the Revolutionary War capital, except for nine months during the British occupation. You will see the Liberty Bell, the hallowed symbol of our nation's freedom; see where the Declaration of Independence was adopted; Congress Hall where Congress sat while Philadelphia was the capitol of the United States from 1790 to 1800; Franklin Court, the site of the house and print shop of one of Philadelphia's most prominent citizens - Benjamin Franklin, and more.

Atlantic City

9:00 am–5:00 pm
Minimum: 35; Maximum: 44
Fee per person: \$50.00*

Spend the day or evening in the Las Vegas of the East where a cash bonus awaits you upon arrival. Atlantic City is a must if you've never been there and is always recommended for repeat fun. A beautiful boardwalk beside the Atlantic Ocean, excellent restaurants and wonderful shopping offer endless adventure. And of course, the extensive selections of casinos for your gambling pleasure. Must be 18 years old. <http://www.atlanticcitynj.com/>

Italian Market

2:00 pm–5:00 pm
Minimum: 20; Maximum: 22
Fee per person: \$35.00*

Philadelphia's Italian Market is the oldest and largest working outdoor market in the United States. Still predominantly Italian, it offers the best of many cultures and cuisines to the shopper. Termini Brothers Bakery is a Philadelphia landmark and one of our most unique and treasured traditions for over 75 years. Using recipes and tools dating back to 1890, Termini's depicts "The Way it Was" and of course, some samples. Another family owned and operated business for over 50 years is DiBruno Brothers' "House of Cheese". This old world European style cheese shop features over 400 different types of cheeses and an overwhelming variety of gourmet food from around the world. <http://www.phillyitalianmarket.com/>

Spirit of Philadelphia-Dinner Cruise

6:00 pm–10:30 pm
Minimum: 35; Maximum: 44
Fee per person: \$85.00*

Come aboard the Spirit of Philadelphia and see the city from the river. Enjoy a breathtaking view of the city's skyline as you cruise along the historic Delaware River. Enjoy a freshly prepared buffet, a festive floorshow, lively dance music and a fascinating tour of the Delaware River. See the famous Walt Whitman Bridge, the New Jersey State Aquarium and Penn's Landing where William Penn first anchored his ship on his voyage to the New World. Good food, lively entertainment and free-spirited laughter - this is what a Spirit cruise is all about!

**Tour fees include transportation, guide, admissions, meals as listed in individual tours and amenities.*

Wednesday, July 12

Pennsylvania Dutch Country

9:00 am–5:00 pm

Minimum: 35; Maximum: 44

Fee per person: \$68.00*

Your guide will acquaint you with the customs and lifestyles of these quiet people who live without the modern conveniences we all take for granted. You will visit an Amish house/farm; and enjoy a real Pennsylvania Dutch style lunch will all of the trimmings including Country Baked Ham, Fried Chicken, Mashed Potatoes, Sausage, Noodles, Chow Chow, Shoo fly pie and much more. There will be time for shopping at Kitchen Kettle in Intercourse for Amish specialties such as jams and relishes, quilts and other crafts before returning to the hotel and the 21st century. <http://www.800padutch.com>

Atlantic City

9:00 am–5:00 pm

Minimum: 35; Maximum: 44

Fee per person: \$50.00*

Spend the day or evening in the Las Vegas of the East where a cash bonus awaits you upon arrival. Atlantic City is a must if you've never been there and is always recommended for repeat fun. A beautiful boardwalk beside the Atlantic Ocean, excellent restaurants and wonderful shopping offer endless adventure. And of course, the extensive selections of casinos for your gambling pleasure. Must be 18 years old. <http://www.atlanticcitynj.com/>

Winterthur

9:30 am–2:30 pm

Minimum: 35; Maximum: 44

Fee per person: \$55.00*

Beginning in 1811, four generations of du Pont's farmed the Winterthur landscape. Henry Francis duPont (1880-1969), Winterthur's last private owner developed a renowned herd of Holstein-Friesian dairy cattle, collected American Decorative Arts and pursued a lifelong interest in horticulture and landscape design. Your visit will include a docent tour of duPont's remarkable collection in the 16 period rooms and a tram ride through the gardens and time for browsing in their wonderful gift shop. Lunch on own and closed on Mondays. <http://www.winterthur.org/>

Battles on the Delaware

1:00 pm–5:00 pm

Minimum: 35; Maximum: 44

Fee per person: \$60.00*

Take the ferry across the Delaware River and enjoy the beautiful Philadelphia skyline. Once on land you will be able to tour the Battleship U.S. New Jersey. The New Jersey was one of the most decorated battleships on the U.S. Naval history and a floating city. The Battleship New Jersey had a complement of nearly 3,000 men during World War II. Enjoy the skyline of Philadelphia as you take the ferry back. Once on land, we'll tour the Independence Seaport Museum and learn about the river and what an important part it is to Philadelphia's economy.

Candlelight Tour/City Tavern

6:30 pm–10:30 pm

Minimum: 35

Fee per person: \$80.00*

Step back in time as you board a trolley that will transport you back to colonial Philadelphia. Stroll the cobblestone streets of Society Hill, one of the oldest and most elegant neighborhoods in the country. Here you'll pass by hidden gardens and courtyards as you learn about life in colonial times. Dinner is served at The City Tavern, once called "the most genteel tavern in America" by John Adams.

Thursday, July 13

Peddler's and Pearl's-A Trip to Bucks County

9:00 am–4:00 pm

Minimum: 35; Maximum: 44

Fee per person: \$65.00*

Travel through the lush countryside of Bucks County for a visit to Green Hill Farms. This was the country estate of Pearl S. Buck, Pulitzer Prize winning author of "The Good Earth", where she resided and wrote for the last 38 years of her life. The house provides a rich, multi-faceted cultural experience that combines art, literature, history and education. It represents the melding of two worlds - Pennsylvania and China. From here we continue in Bucks County to Peddlers' Village with over 70 unique shops set in an 18th century colonial style village. You might also enjoy the new Carousel World which is an antique operating carousel combined with a museum filled with the work of master carousel carvers and memorabilia. Lunch included at Jenny's at Peddler's Village. <http://www.peddlersvillage.com/>

Shopping in Manayunk

10:00 am–2:00 pm

Minimum: 30; Maximum: limitless

Fee per person: \$35.00*

Manayunk, nestled along the banks of the Schuylkill, is a 19th century mill town that has been transformed into a contemporary shopping, dining and recreational destination while preserving its historic integrity. Here you can find items that cannot be found in a shopping mall. Main Street is comprised of a potpourri of boutiques specializing in men's, women's, and children's apparel and accessories, crafts, home furnishings, antiques and more. This shuttle leaves every 30 minutes. <http://www.manayunk.com>

Friday, July 14

Pennsylvania Dutch Country

9:00 am–5:00 pm

Minimum: 35; Maximum: 44

Fee per person: \$68.00*

Journey back in time as you travel through the pastoral countryside of Lancaster County. Your guide will acquaint you with the customs and lifestyles of these quiet people who live without the modern conveniences we all take for granted. You will visit an Amish house/farm; and enjoy a real Pennsylvania Dutch style lunch will all of the trimmings including Country Baked Ham, Fried Chicken, Mashed Potatoes, Sausage, Noodles, Chow Chow, Shoo fly pie and much more. There will be time for shopping at Kitchen Kettle in Intercourse for Amish specialties such as jams and relishes, quilts and other crafts before returning to the hotel and the 21st century. <http://www.800padutch.com>

Franklin Mills

10:00 am–3:00 pm

Minimum: 35; Maximum: 44

Fee per person: \$35.00*

If you do not like choices, this is not the place for you. The "Official Landmark of the Discount Shopper" has over 150 stores conveniently located under one roof, offering top designer names at 20% to 70% below retail prices. And, Pennsylvania has no sales tax on clothing. As an added incentive, you will receive discount coupon books and shopping bags when you arrive. <http://www.franklin-mills-mall.com>

**Tour fees include transportation, guide, admissions, meals as listed in individual tours and amenities.*

Exhibitors

Exhibit Hours

Hall A, Pennsylvania Convention Center

3:00–7:00 pm
8:00 am–6:00 pm
8:00 am–6:00 pm

Sunday, July 9
Monday, July 10
Tuesday, July 11

19th World Congress of Soil Science

School of Land and Food Sciences
University of Queensland
St. Lucia, QLD 4072, Australia
Phone: 61 1 3365 2059
Fax: 61 1 3365 1177
Email: n.menzies@uq.edu.au

Booth 519

Activation Laboratories Ltd.

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Fax: 905-648-9613
Email: ancaster@actlabsint.com
Website: www.actlabs.com

Booth 607

Actlabs provides contract analytical services. Services offered for Soil Scientists include the full range of inorganic and organic analyses for analyzing soils, water and vegetation. Some of our analytical methods include Instrumental Neutron Activation Analysis (INAA), ICP/OES, ICP/MS, High Resolution ICP/MS, X-ray Fluorescence, X-ray Diffraction, LECO, Fire Assay, Ion Chromatography, Capillary Electrophoresis, GC/MS, Laser Particle Size Analysis, Autoanalyzers and much more. We also offer services related to isotope analysis and geochronological dating. Research and development efforts over the years have put us at the forefront of emerging services like metal speciation in liquids and solids.

REPRESENTATIVES: Eric Hoffman Sergio Troncoso

ADC BioScientific LTD

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Fax: +44 1992 444567
Email: sales@adc.co.uk
Website: www.adc.uk

Booth 412

ADC BioScientific is one of the worlds leading developers of high quality, field portable gas exchange instrumentation for a variety of geoscience research applications including soil flux. At this year's WCSS ADC is demonstrating the new ACE system (Automated soil CO₂ exchange system) designed for long-term, unattended monitoring of soil flux. The automated design allows the soil area to be exposed to ambient conditions between analysis cycles. The ACE system features a highly accurate CO₂ analyser housed directly inside the soil chamber assembly.

REPRESENTATIVES: Steve Bonnage John Stanyon

Advanced Geosciences, Inc.

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Austin, TX 78726, USA
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Fax: 512-258-9958
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Advanced Geosciences is the manufacturer of the SuperSting geophysical resistivity imaging system. The company is based in Austin, Texas and has been active in the geophysical field since 1989. Our state-of-the-art products include the SuperSting memory earth resistivity/IP meter, automatic electrodes and the EarthImager tomography software. Now offering two short courses with Manufacturers Certification in Resistivity Imaging and Resistivity Data Processing.

REPRESENTATIVES: Brad Carr

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Booth 601

American Peat Technology, LLC modifies a high quality low ash reed sedge peat into two all natural products. BioAPT Microbe Carrier: Used primarily in the Rhizobia bacteria seed inoculant industry BioAPT has exceptional moisture and nutrient retention characteristics. This makes it a highly desirable carrier for many other types of microbes, Gram negative or Gram positive. BioAPT comes standard in two physical forms, granular (10 to 32 mesh), and powdered (80% by 200 mesh). APTsorb Cation Exchange Media: Taking advantage of our peat's strong cation exchange properties we modify our granule to give it outstanding wetted properties. In liquid phase metals removal, APTsorb has strong affinity for a broad spectrum of metals with a +2 valence. APTsorb also has a tolerance to organic solvents. APTsorb comes in two forms. The first is a use once and dispose media. This media is formulated to be stable when land-filled. The second product is a media that is suitable for acid striping and reuse.

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Fax: 208-226-7280
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REPRESENTATIVE: Troy Chipps

Analytical Spectral Devices, Inc.

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Booths 512, 611

Bio Chambers Incorporated has more than 30 years experience in the design and manufacture of quality chambers and rooms for research purposes. We supply a wide range of plant growth chambers which are ideal for soil remediation research; tissue culture chambers and rooms; and environmental rooms. Chambers control temperature, light and airflow - and support humidity and CO2 options. All products have complete data-logging capability, even on experiments lasting more than one year. Photoperiods for any location may be programmed simply by entering the required latitude, longitude, and start date.

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California Analytical Instruments (CAI) is recognized as one of the world's leading providers of continuous gas emissions monitoring equipment. The Innova Airtech Model 1412 - Photoacoustic Multigas Monitor has become the standard for simultaneously measuring Ammonia (NH3), Carbon Monoxide (CO), Carbon dioxide (CO2), Methane (CH4), Nitrous Oxide (N2O) and Water Vapor in both Animal Feed Operations and Soil Flux studies. CAI can measure these gases from a single point or utilize our Mark 3 Multipoint Sampler and sample from multiple points all around the facility. CAI also offers the Model 605 HCLD - Heated Chemiluminescent analyzer for continuous NO/NOx & NH3 monitoring.

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Campbell Scientific manufactures data acquisition systems and sensors and has a 30 year history of providing rugged and reliable measurement equipment. Our soil water instrumentation is used extensively to monitor water content and matric potential in a wide range of applications where water inventory or movement must be accurately measured. The instrumentation can be used to automatically monitor multiple sensors for time-series and profile information or make point measurements using portable, hand-held devices. Proven reliability, low power use, accurate measurements, and the ability to customize each system make our equipment ideal for a variety of applications including, agricultural research, protection of water resources, and transport studies.

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Exclusive North American Distributor for Thermo Electron Combustion Elemental Analyzers: The Flash EA1112 is available in a wide range of configurations: N/Protein through CHNS/O for both solid and liquid (direct automatic injection) samples. This design features improved performance, large sample size capacity (up to 1 gram and 100 ul for liquids), and economical operation. The latest Eager 300 Software offers a higher level of automation. Upgrade kits for previous Carlo Erba instruments are also available. In 2004 CE Elantech also became the US Distributor for the NIR Technology Australia line of Near Infrared Analyzers and Weiss Enterprises SeedCount Image Analysis System.

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REPRESENTATIVES: Ying Yan Jennifer Chen

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Fax: 828-693-4799
Email: jhildebrand@conviron.com
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Booth 319

Conviron has been a leading supplier of controlled environment products for over 39 years and is the only plant growth chamber manufacturer certified as an ISO 9001 company for the establishment of their quality management program. All standard products are also CSA / NRTL certified as meeting all OSHA electrical safety standards. Our extensive product line includes plant growth chambers, tissue culture chambers, seed germinators, incubators, research greenhouses and related products for the precise control of temperature, relative humidity, CO₂ and light intensity. Host computer systems allow remote programming and monitoring of all environmental control parameters.

REPRESENTATIVES: Alex Stanley Sharon Reid

Decagon Devices Inc.

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Pullman, WA 99163, USA
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Booths 302, 304, 401, 403

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REPRESENTATIVES: Bryan Wacker Matt Galloway
T-Jay Clevenger

Delta-T Devices

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Fax: +44 1638 743155
Email: aline.clark@delta-t.co.uk
Website: www.delta-t.co.uk

Booth 511

Delta-T soil moisture sensors include the research grade ThetaProbes and SM200 Probes for volumetric water content, Profile Probes for measuring profiles of soil moisture to 1m depth, and sensors for soil water potential. All are loggable, low power and buriable. Our pore water conductivity probe, the WET Sensor, provides instantaneous measurements of dissolved salts within the soil pores. We also specialise in battery powered, environmentally protected, field data log-

gers, ranging from the low cost GP1 and the 6-channel DL6 Soil Moisture Logger to the 60 channel DL2e. Established in 1971, Delta-T has thousands of enthusiastic users all over the world.

REPRESENTATIVES: Dick Jenkins Gary Woods

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Booths 602, 604

Eijkelkamp Agrisearch Equipment, ISO-9001 certified producer / supplier of environmental and agricultural research equipment. Leading company in the design and production of equipment for environmental soil research studies. Eijkelkamp also has a modern Education and Training Centre that offers a range of courses, training sessions and workshops. Product ranges includes equipment for: Soil: soil drilling/sampling and soil physical research; Water: water quality & quantity monitoring. (Ground-)water sampling/analysis; Sludge & Slurry: samplers; Earth monitoring: meteorological instruments, dataloggers, sensors and measuring stations, e-SENSE, plant physiology

REPRESENTATIVES: Albert Knol Wim Bulten

elementar Americas, Inc.

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Fax: 856-787-0055
Email: s_hughes@elementar-inc.com
Website: www.chnos.com

Booth 408

The vario Max CNS elemental analyzer with automatic ash removal will be shown. The Max can run from milli-gram to multi-gram samples of liquids or solids. 2.5 gram soil samples or 4 ml water samples are typical. The Max may also be coupled with Isotope Ratio Mass Spectrometers. The vario Max IRMS system has the ability to determine isotopic ratios of C, N and S simultaneously. We are also featuring the vario MACRO CNS analyzer, which has a high level of performance at a modest cost.

REPRESENTATIVES: Scott Hughes Sandy Hughes

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Environmental Growth Chambers

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ESI-Environmental Sensors, Inc.

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Website: www.esica.ca

Booth 108

Environmental Sensors Inc. is a global market leader in the field of moisture sensing instruments. Over the last decade, ESI has pioneered the use of moisture monitoring sensor technology in a broad range of environmental, civil engineering and agricultural applications. We specialize in working with challenging soil conditions, such as clay or saline soils. The full range of ESI moisture sensing and advanced irrigation control products is currently being used in scientific institutions around the world to supply researchers with the accurate reliable data that they need for their work. Visit our display booth (#108) to hear the full ESI story.

REPRESENTATIVES: Graham Howe Pierre Ballester

ESRI

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Booth 416

With annual sales of more than \$560 million, ESRI remains the world leader in the geographic information system (GIS) software industry. Our business involves the development and support of GIS software for all types of organizations—from the one-person office to multinational corporations to innovative Internet GIS solutions.

REPRESENTATIVE: Anne Taylor

German Soil Science Society (DBG) with Hohenheim University

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Fax: +49-(0)711-459-3117
Email: kstahr@uni-hohenheim.de

Website: www.agrarstudium.de; www.dbges.de **Booths 502, 504**

The purpose of the Deutsche Bodenkundliche Gesellschaft (DBG) is to promote soil science as an independent scientific discipline and strengthen its integration within related disciplines. The goals of the DBG are: to inspire and enhance scientific research and promote information exchange; to support scientific education; to offer public and educational information about soils, their functions, and their conservation; to support professional relations with national and international

soil science societies. The Society publishes reports, circulars, and "Proceedings" as well as the "Journal of Plant Nutrition and Soil Science", known as "Zeitschrift für Pflanzenernährung und Bodenkunde". The exhibition will inform about the services of our Society and also of some members like the Hohenheim University.

REPRESENTATIVES: Franz Makeschin Karl Stahr
Jiraporn Inthasan Stephen Wagner

Giddings Machine Company

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Email: giddings@soilsample.com
Website: www.soilsample.com

Booths 513, 515, 517

Giddings Machine Company has been leading the industry manufacturing the highest quality soil sampling & coring equipment available, for over 45 years. Giddings Machine Company is the company that started it all and to which all other equipment is compared. Since the beginning we have equipped the industry with the best tooling and components to get the desired results quickly and efficiently. Whether it be hand operated or hydraulically powered machines mounted on ATV, UV, Tractor Three Point, Truck, or Trailer. We are constantly improving our product and introducing new ideas in equipment to meet your needs.

REPRESENTATIVES: Doug Mohrlang Dari Mohrlang
Jake Mohrlang Craig Morhlang

ICT International PTY LTD

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Website: www.ictinternational.com.au

Booth 610

ICT International is an Australian company that has provided monitoring solutions to soil, plant and environmental research since 1982. Smart Sensor systems enabling "Plug and Play" soil salinity monitoring both in the field and laboratory will be the focus of the display. Hourly monitoring of soil solution salinity with the Salinity Field Station as used in biosaline agricultural research will be demonstrated, www.ictinternational.com.au/salinity.htm This will illustrate the application of this technology to monitoring soil moisture, soil suction, sapflow, stem water potential, meteorology, soil mechanics, thermocouples, water quality etc.

REPRESENTATIVES: Peter Cull Alec Downey

IMKO GmbH

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Booth 308

Environmental monitoring (ENVIS). Since 1984 IMKO is expert for designing and constructing network based environmental monitoring systems as well as data logging. Features of ENVIS systems are modularity, operational reliability and comfortable handling. A wide variety of environmental sensors can be integrated into ENVIS networks. ENVIS enables data transmission over several kilometres within the network as well as GSM/GPRS remote data transmission via e-mail and internet. Soil moisture measurement (TRIME®-TDR). IMKO's unique TRIME®-TDR soil moisture measurement systems

guarantee high accuracy, outstanding robustness and easy handling at reasonable costs for both, mobile and stationary applications. Take a look at <http://www.imko.de/> for detailed information on the wide variety of TRIME®-TDR soil moisture sensors.

REPRESENTATIVES: Peter Blume Rolf Becker

The International Year of Planet Earth

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Booth 306

The International Year of Planet Earth has been proclaimed by the United Nations for 2008, and its activities will span 2007 to 2009. Earth scientists are today's key players in building a sustainable world, but their knowledge is underused by politicians and planners, and underappreciated by the public. The Year is a global research and outreach initiative that aims to bring home the importance of Earth sciences to everyone. IUGS, the International Union of Geological Sciences, is one of the year's two founding partners (UNESCO being the other). The 33rd International Geological Congress (Norway, August 2008) will present the highlights of the Year.

REPRESENTATIVES: Ed de Mulder Werner Janoschek

LI-COR Biosciences

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Website: www.licor.com

Booths 202, 204

Visit LI-COR's booth (#202-204) to see the latest instrumentation for environmental research, including radiation measurement equipment, infrared gas analyzers, and the LI-8100 Automated Soil CO₂ Flux System. The LI-8100 is an economical, lightweight system for measuring soil CO₂ flux. It is rugged, portable and weather tight with low power consumption. It is ideal for short-term survey or long-term unattended soil CO₂ flux measurements over a variety of conditions. LI-COR is also introducing the new LI-8150 Multiplexer, which greatly expands the LI-8100's capabilities by providing a convenient platform for connection of as many as 16 soil chambers at one time.

REPRESENTATIVES: Chris Mantzios Liukang Xu

Lippincott, Williams and Wilkins

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Website: www.lww.com

Booth 405

Lippincott Williams & Wilkins is a unit of Wolters Kluwer Health, a group of leading information companies offering specialized publications and software for those in the scientific and medical communities. LWW is proud publisher of the journal *Soil Science*, celebrating its 90th year of publishing in 2006. The authoritative research articles published in the journal report the most significant work of leading experts from every area of soil and plant science—soil chemistry, physics, fertility, morphology, microbiology, and environmental soil science. *Soil Science* also keeps readers current with reviews of the newest books in the field, editorials and letters to the editor.

REPRESENTATIVES: Kevin Anderer Michael Hargrett

NRC Research Press

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Fax: 613-952-7656
Email: pubs@nrc-cnrc.gc.ca
Website: www.pubs.nrc.gc.ca

Booth 220

Submit your manuscript to the Canadian Journal of Forest Research (CJFR)—one of 16 international journals published by NRC Research Press. Published both online and in print, CJFR features rapid online publications, no submission or page charges, and online manuscript submission. A 20% discount will be available on all our books including the updated edition of the Canadian System of Soil Classification.

Representatives: Mike Boroczki Suzanne Kettley

ONSET Computer Corp

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Website: www.onsetcomp.com

Booth 212

Onset manufactures reliable, affordable, easy-to-use HOBOTM data loggers for soil, weather, and underwater monitoring. Battery-powered HOBOTM loggers record soil moisture, temperature, relative humidity, rainfall, water level, PAR, solar radiation, wind, leaf wetness, barometric pressure, 4-20mA, and DC voltage. HOBOTM data shuttles provide convenient data readout from numerous loggers, and HOBOWareTM software for Windows or Mac offers powerful plotting and analysis functions. Our 4-channel Micro Station and 15-channel Weather Station feature pre-configured smart sensors for plug-and-play convenience. Wireless options include 900 MHz spread-spectrum and pager-based modems with alarm notifications. Stop by Booth 212 to enter our free logger raffle.

REPRESENTATIVE: Eileen Sandherr

Potash & Phosphate Institute (PPI)

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Email: darmstrong@ppi-far.org
Website: www.ppi-ppic.org

Booth 207

The Potash & Phosphate Institute (PPI) invites participants of the WCSS to visit our exhibit and meet our scientific staff from various regions around the world. PPI is a not-for-profit organization with a long history of activity in agronomic research and education. In addition to active programs in North and South America, PPI also has well-established efforts in China, India, and Southeast Asia. Our mission is to advance the appropriate use of P, K, and other essential nutrients in crop production systems through the worldwide development and promotion of scientific information that is agronomically sound, economically advantageous, and environmentally responsible.

REPRESENTATIVES: Don Armstrong Steve Couch

PP Systems

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Booth 406

PP Systems is a leader in the design and manufacture of research instrumentation for plant and soil sciences. Our highly portable, automated and user friendly remote sensing instruments (UniSpec-DC & UniSpec-SC) are commonly used in landscape (vegetation and soil) classification and for studies of ecosystem processes over spatial and temporal scales. In addition, we offer a complete range of field portable CO₂/H₂O gas analyzers and chambers for measurement of soil respiration/ecosystem CO₂ Efflux. Systems can be configured for rapid spot measurements and continuous, unattended long term measurements for analysis of the interaction between soil and atmosphere. You can also visit us at www.ppsystems.com.

SDEC France

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Website: www.sdec-france.com

Booth 214

French company created in 1991, SDEC France supplies high quality scientific instrumentation at the best price to soil scientists all over the world. Our company develops and manufactures a wide range of tensiometers for field and lab use, pressure transducers, suction lysimeters, portable vacuum pumps, soil humidimeters... Besides, SDEC France is manufacturer of environmental monitoring equipment for nuclear research and industry. Thanks to its production capacities and skilled staff, SDEC France is also able to supply custom made systems in addition to its standard product range.

REPRESENTATIVES: Raphael Penno-Mazzarino
Guillaume Maire

Smithsonian Soils Exhibit

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Fax: 608-273-2021
Email: pkamps@soils.org
Website: www.soils.org/smithsonian/

Booth 105

The Soil Science Society of America (SSSA) is working with the Smithsonian Institution's National Museum of Natural History in Washington, DC, to plan and fund a soils exhibit as part of their Forces of Change Program. The 5,000 square foot exhibit will feature one entire hall of the most-visited natural history museum in the world, with more than one million visitors from overseas each year. The exhibit will include a display of state soil monoliths and an educational, interactive section to help the museum's more than six million visitors a year understand how soil is intricately linked to the health of humanity, the environment and the planet. Related publications and web activities will reach millions of additional people. A traveling exhibit will be sent to hundreds of other museums and libraries to reach additional communities. Never before have we had such an opportunity to advance the understanding of soil. This work will move forward our journey to sustain Earth and its people by educating visitors to the Smithsonian on the importance of soil and Earth sciences. The exhibit is scheduled to open in 2008 or earlier, depending on funding, and run for two

years, with the state soils displayed an additional 5-7 years. Please stop by booth # 105 to see the recently released two-minute DVD, view the concept design drawings, and make a gift to ensure a 2008 opening!
REPRESENTATIVE: Paul Kamps

Soil Science Society of America

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Phone: 608-273-8080
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Website: www.soils.org

Booths 101, 103

The Soil Science Society of America's mission is to enhance the sustainability of soils, the environment, and society by integrating diverse scientific disciplines and principles in soil science for the wise stewardship of soil and natural resources while advancing the discovery, practice, and profession of soil science through excellence in the acquisition and application of knowledge to address challenges facing society, in the training and professional development of soil scientists, and in the education of, and communication to a diverse citizenry. Since its inception in 1855, SSSA has continued to evolve, modifying its educational offerings to support the changing needs of its members. Today, SSSA is seen as a progressive, scientific society meeting the needs of its members through publications, recognition and awards, placement service, certification programs, meetings, and student activities. Society members are dedicated to the conservation and wise use of natural resources to produce food, feed, and fiber crops while maintaining and improving the environment. Please stop by booth #101 to update your membership or more information on how to become a member.

REPRESENTATIVE: Susan Chapman

Soil Science Society of America Publications

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Booth 102

In pursuing its mission to discover and disseminate knowledge for the wise stewardship of our natural resources, SSSA has become a leading publisher of basic and applied soil science, environmental, and agricultural books and journals. Visit Booth 102 to browse and purchase SSSA publications. Sneak a peek at the makeover of the highly cited Soil Science Society of America Journal, and learn about Vadose Zone Journal, Journal of Environmental Quality, and Soil Survey Horizons. SSSA books available include the latest in the SSSA Book Series, as well as the well-received Methods of Soil Analysis series and titles in the Agronomy Monograph and SSSA Special Publications series.

REPRESENTATIVES: Lisa Al-Amoodi Rebecca Funck

SOILMOISTURE Equipment Corp.

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Email: sales@soilmoisture.com
Website: www.soilmoisture.com

Booths 606, 608

Many clients, world wide, rely on Soilmoisture agronomic equipment. Tensiometers, Ceramic plate extractors, TRASE TDR moisture measuring- and a wide range of soil sampling equipment make it possible to characterize the moisture-holding capacities and characteris-

tics of soils. Our tools transformed irrigation practices, allowing for the establishment of soil-moisture standards now used worldwide. We continue to add new and innovative equipment and systems that make a difference in more efficient research or in solving the complex problems of today's technical world. If you have a new idea or just looking for a solution that involves water, moisture or dielectrics give us a call. Let us add your idea or solution to the growing list of accomplishments that now span over 50 years.

REPRESENTATIVES: Alle Van Calker Whitney Skaling

Spectrum Technologies, Inc.

12360 S Industrial Drive East

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Email: info@agmeters.com

Website: www.specmeters.com

Booth 307

Spectrum Technologies, Inc. offers a full line of affordable measurement technology for nutrient levels, soil quality, light, weather, and other factors directly affecting plant development. Record rainfall, leaf wetness hours, temperature and humidity fluctuations, and other weather events with our WatchDog data logging line, which ranges from stand-alone units to full weather stations. The comprehensive software allows the user to graph the data, run standard reports, create custom reports, export data to excel, and import other weather data. Software is available for 17 disease models and 60 insect models. Over 15,000 customers across the globe count on Spectrum's easy to use, dependable technology.

REPRESENTATIVES: Doug Kieffer Julian Good

Springer

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Website: www.springer.com

Booth 507

Springer, one of the leading Life Sciences book and journal publishers, offers insightful, sought-after content from the world's most prestigious scientists. Highlights of the portfolio include journals such as Plant and Soil and the new journal Potato Research. References, texts and the very active Soil Biology book series round out our collection. Take advantage of the pre-publication price we offer on The Encyclopedia of Soil Science. Interested in a free journal sample? Looking for a comprehensive source? Have a proposal to discuss with one of our knowledgeable publishers? We're happy to hear from you: stop by our booth, or visit us at springer.com.

Stevens Water Monitoring Systems

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Fax: 503-469-8100

Email: kbellingham@stevenswater.com

Website: www.stevenswater.com

Booth 206

The company provides products in 3 categories for fast, reliable and easy-to-use water monitoring solutions: sensors and analysis equipment for water-related measurement; data collection units that record the information gathered; communications devices that send and receive the water data. New products include: Hydra Probe II: the only soil sensor offering all-in-one sensing of moisture, salinity and temperature with digital or analog output. The Shark: a Bluetooth-based "wireless serial cable" for data collection. Applications: Irrigation control, hy-

dropower systems, flood forecasting, watershed management, water quality, water supply, waste water, precision agriculture, sports turf, golf courses. Stevens has sold into more than 40,000 installations worldwide since its inception. Stevens' customer base includes Fortune 500 companies, utilities, heavy industry, and outdoor sports sites, as well as government and local agencies worldwide, leading research institutions and universities

REPRESENTATIVES: Keith Bellingham Fred Holloway

Taylor & Francis

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Booth 301

For two centuries, Taylor & Francis has been fully committed to the publication of scholarly information of the highest quality, and today this remains our primary goal. Taylor & Francis has grown rapidly over the last two decades to become a leading international academic publisher in the fields of science, engineering, social science, and humanities. The Taylor & Francis Group publishes around 2,300 new books each year, with a books backlog in excess of 20,000 specialist titles and more than 1,050 journals, including Soil and Sediment Contamination, International Journal of Phytoremediation and Communications in Soil Science.

REPRESENTATIVES: Eric Fiedler Andrew Moyer

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Booth 303

Taylor & Francis Group LLC-CRC Press is a global publisher of quality information for the soil science community. Visit Booth 3030 to take advantage of our 15-25% convention discount and browse our titles on display including: Environmental Soil-Landscape Modeling: Geographic Information Technologies & Pedometrics, Biological Approaches to Sustainable Soil Systems and the third edition of our best-selling Soils & Environmental Quality. The Encyclopedia of Soil Science, 2nd Edition and our online reference library AGRICULTUREnet-BASE continue our tradition of excellence in providing access to essential information in all formats. www.crcpress.com

REPRESENTATIVE: John Sulzycki

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Booth 407

Founded in 1968, the Korean Society of Soil Science and Fertilizer (KSSSF) is a non-profit organization for the educational and scientific dedication to the development of soil science, fertilizer, plant nutrition and agricultural environment in Korea and Asia regions. As a member of IUSS, the KSSSF plays an important role in connecting soil's missions among the World. The KSSSF had already submitted the official

proposal for hosting the 20th WCSS in 2014 in Seoul, Korea. The KSSSF wishes to invite all of you to the dynamic Korea. Through the display, we will introduce about the Korea and Korean soils.
REPRESENTATIVES: Han-Myeong Kim Jai-Joung Kim

The Mosaic Company

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Booth 503

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Booths 402, 404

UMS manufactures soil moisture sensors, pore water - and leachate collection solutions and lysimeter stations. We will present precision tensiometers working up to 2.5 bar, new porous material for pore water sampling, new vacuum controllers, HYPROP, and modular standardized design for lysimeter stations. Our "systems & solutions" team of 8 graduated engineers offers customized solutions for researchers with monitoring tasks for SOIL, WATER, PLANTS and CLIMATE for Laboratory and long term monitoring field use. It is our aim to support you in your tasks with best possible measurement solutions. Benefit from our engineering competence and receive complete and tested solutions from one hand!

REPRESENTATIVES: Georg von Unold Petra von Unold

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Booth 420

Environmental Measurement Devices is a medium sized company having been successful in the field of environmental measurements for nearly fifteen years. Staffed with an interdisciplinary and competitive team of engineers, scientists and technicians, the company develops and manufactures instruments with a high degree of innovation, functionality and quality. They can be made for onsite and laboratory use and can be aggregated to form complex environmental measuring stations for long-term monitoring. Product range: soil hydrological measuring devices (tensiometers, soil moisture probes, piezometers, infiltrometers ...); weather stations (wind, global radiation, precipitation temperature, humidity, air pressure, ...); data recording systems (data logger, data radio modules, data recording and memory cards, software development...); sampling devices for soils and water; control and monitoring systems for landfill and mining; soil science laboratory devices (ku-pF apparatus, pipette equipment...); erosion measuring systems for water and wind; lysimeters, lysimeter container stations, lysimeter excavation technology

REPRESENTATIVES: Manfred Seyfarth Reiko Liermann

USDA-Agricultural Research Service

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Booth 505

REPRESENTATIVES: Dale Bucks Sara Wright

USDA-Natural Resources Conservation Service

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Booths 312, 314, 316, 318, 320, 411, 413, 415, 417, 419

The U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment. The U.S. National Cooperative Soil Survey (NCSS) is a nationwide partnership of federal, regional, state, and local agencies and institutions. The NCSS works cooperatively to investigate, inventory, document, classify, and interpret soils and to disseminate, publish, and promote the use of information about the soils of the United States and its trust territories. Additional information on the NCSS and technical references for soil survey activities are available at <http://soils.usda.gov/>

REPRESENTATIVES: Hari Eswaran Paul Reich
Amy Yeh Douglas Helms
Carolyn Olson Mike Sucik
Linda Greene Maxine Levin
Jim Fortner Carla Kertis
Judy Scheyer William Effland

Veris Technologies

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Website: www.veristech.com

Booth 508

Veris Technologies produces innovative on-the-go soil mapping equipment. On-the-go sensing provides the detail necessary for precise characterization of soil variability. Current on-the-go sensors from Veris include soil pH and soil electrical conductivity (EC). A near-infrared spectroscopy (NIRS) mapping sensor will be available in late 2006.

REPRESENTATIVES: Eric Lund Tyler Lund



International Year of Planet Earth—fertile ground for soils

The United Nations General Assembly, meeting in New York, has proclaimed the year 2008 to be the United Nations International Year of Planet Earth. The Year's activities will span the three years 2007-2009.

The Year's purpose, encapsulated in its strapline Earth sciences for society, is to:

- Reduce risks for society caused by natural and human-induced hazards
- Reduce health problems by improving understanding of the medical aspects of Earth science
- Build safer structures and expand urban areas, utilizing natural subsurface conditions
- Determine the non-human factor in climatic change
- Enhance understanding of the occurrence of natural resources so as to contribute to efforts to reduce political tension
- Detect deep and poorly accessible groundwater resources
- Improve understanding of the evolution of life
- Increase interest in the Earth sciences in society at large
- Encourage more young people to study Earth science in university

The Year aims to raise \$20 million from industry and governments and will spend half on co-funding research, and half on Outreach activities. It will be the biggest ever international effort to promote the Earth sciences.

Apart from researchers, who are expected to benefit under the Science Programme, the principal target groups for the Year's broader messages are:

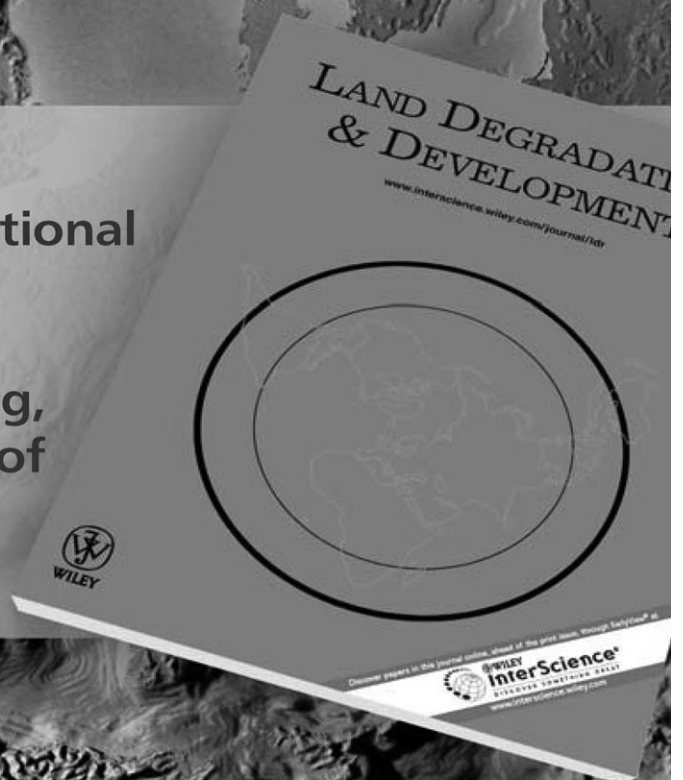
- Decision makers and politicians who need to be better informed about how Earth scientific knowledge can be used for sustainable development
- The voting public, which needs to know how Earth scientific knowledge can contribute to a better society
- Fellow geoscientists, who are very knowledgeable about various aspects of the Earth but who need help in using their knowledge for the benefit of the world's population.

The research themes of the year, set out in 10 science prospectuses, were chosen for their societal relevance, multidisciplinary and outreach potential. The Year has 12 Founding Partners, 23 Associate Partners including ISRIC, and is backed politically by 97 countries representing 87% of the world's population. The Year was promoted politically at UNESCO and at the United Nations in New York by the People's Republic of Tanzania.

The Year is now open to Expressions of Interest from researchers within each of its 10 themes, one of which is Soils - a research theme set out in broad terms in the Year's Prospectus number 10, written by a Key Text Team under David Dent comprising Alfred Hartemink and John Kimble. This prospectus is now available as a PDF download from www.yearofplanetearth.org and is open to Expressions of Interest from researchers. The Outreach programme of the year is also now open to expressions of interest, and will work in a similar way by receiving and responding to bids for support from individuals and organizations worldwide.

Land Degradation & Development

Land Degradation & Development is an international journal, which seeks to promote rational study of the recognition, monitoring, control and rehabilitation of degradation in terrestrial environments



www.interscience.wiley.com/journal/ldr

18th World Congress of Soil Science

Special Events

Sunday, July 9

Opening Reception

7:00-10:00 pm
Grand Hall of the Pennsylvania Convention Center

The Grand Hall occupies the renovated Reading Terminal train shed, the oldest surviving single-span arched truss roof structure in the world, and the only one of its kind remaining in the United States. The Reading Terminal Headhouse served as a passenger station and company headquarters for the Reading Railroad. The Headhouse was designed in 1891, by the Wilson Brothers Architecture & Engineering firm. It is attributed to the architect F. H. Kimbal. The extravagant building opened in 1893 and was an icon for the Philadelphia & Reading Railroad Company, contributing to the company's power, prominence and to the city's importance.

Monday, July 10

WCSS Opening Ceremony

8:00-10:00 am
Pennsylvania Convention Center
Grand Ballroom AB, Second Floor

Program

Introductory Remarks
Don Sparks, *IUSS President*

Speakers

The Honorable Ruth Ann Minner, *Governor of Delaware*
Stephen Nortcliff, *IUSS Secretary General*
Ambassador Kenneth Quinn, *World Food Prize*
Michael Clegg, *U.S. National Academy of Sciences*
Bruce Knight, *Chief, USDA-NRCS*
Ed de Mulder, *IUGS Past President*
Jeffrey Sachs, *Columbia University*

Thursday, July 13

Gala Dinner

7:00-11:00 pm
Philadelphia Marriott Downtown
Grand Ballroom, Fifth Floor

The evening's activities include a review of the Congress in pictures, presentation of IUSS awards, recognition of honorary members, and entertainment. Tickets may be purchased at WCSS Onsite Registration until 12 noon on Thursday, July 13.

Saturday, July 15

Closing Ceremony

9:00-11:30 am
Pennsylvania Convention Center
Grand Ballroom AB, Second Floor

Introductory Remarks

Don Sparks, *IUSS President*

Status Report on 18th WCSS

Lee Sommers, *Co-Chair, Organizing Committee*
Larry Wilding, *Co-Chair, Organizing Committee*

Status Report of IUSS Council

Stephen Nortcliff, *IUSS Secretary-General*

Closing Comments

Don Sparks, *IUSS President*
Gary Petersen, *IUSS Vice President*

Introduction of Incoming IUSS President

Roger Swift, *IUSS President-Elect*

Joy Unlimited Youth Gospel Choir

Adjourn

Business Meetings

IUSS Meetings

IUSS Council	Sun. 1:00 PM–5:00 PM	Convention Center Room 113C, First Floor
IUSS Council	Fri. 1:00 PM–4:00 PM	Convention Center Room 113C, First Floor

Division Meetings

Division 1 Business Meeting	Mon. 5:00 PM–5:45 PM	Convention Center Room 113C, First Floor
Division 2 Business Meeting	Tue. 5:00 PM–5:45 PM	Convention Center Room 111AB, First Floor
Division 3 Business Meeting	Mon. 5:00 PM–5:45 PM	Convention Center Room 107AB, First Floor
Division 4 Business Meeting	Tue. 5:00 PM–5:45 PM	Convention Center Room 107AB, First Floor

Commission Meetings

Commission 1.1 Business Meeting	Tue. 5:45 PM–6:30 PM	Convention Center Room 110A, First Floor
Commission 1.2 Business Meeting	Tue. 5:45 PM–6:30 PM	Convention Center Room 110B, First Floor
Commission 1.3 Business Meeting	Tue. 5:45 PM–6:30 PM	Convention Center Room 112AB, First Floor
Commission 1.4 Business Meeting	Tue. 5:45 PM–6:30 PM	Convention Center Room 113C, First Floor
Commission 1.5 Business Meeting	Tue. 5:45 PM–6:30 PM	Convention Center Room 102A, First Floor
Commission 1.6 Business Meeting	Tue. 5:45 PM–6:30 PM	Convention Center Room 102B, First Floor
Commission 2.1 Business Meeting	Mon. 5:45 PM–6:30 PM	Convention Center Room 102A, First Floor
Commission 2.2 Business Meeting	Mon. 5:45 PM–6:30 PM	Convention Center Room 102B, First Floor
Commission 2.3 Business Meeting	Mon. 5:45 PM–6:30 PM	Convention Center Room 110A, First Floor
Commission 2.4 Business Meeting	Mon. 5:45 PM–6:30 PM	Convention Center Room 110B, First Floor
Commission 2.5 Business Meeting	Mon. 5:45 PM–6:30 PM	Convention Center Room 112AB, First Floor
Commission 3.1 Business Meeting	Tue. 5:45 PM–6:30 PM	Convention Center Room 107AB, First Floor
Commission 3.2 Business Meeting	Tue. 5:45 PM–6:30 PM	Convention Center Room 108AB, First Floor
Commission 3.3 Business Meeting	Tue. 5:45 PM–6:30 PM	Convention Center Room 109AB, First Floor
Commission 3.4 Business Meeting	Tue. 5:45 PM–6:30 PM	Convention Center Room 113AB, First Floor
Commission 3.5 Business Meeting	Tue. 5:45 PM–6:30 PM	Convention Center Room 114, First Floor
Commission 4.1 Business Meeting	Mon. 5:45 PM–6:30 PM	Convention Center Room 108AB, First Floor
Commission 4.2 Business Meeting	Mon. 5:45 PM–6:30 PM	Convention Center Room 109AB, First Floor
Commission 4.3 Business Meeting	Mon. 5:45 AM–6:30 PM	Convention Center Room 114, First Floor
Commission 4.4 Business Meeting	Mon. 5:45 PM–6:30 PM	Convention Center Room 111AB, First Floor
Commission 4.5 Business Meeting	Mon. 5:45 PM–6:30 PM	Convention Center Room 113AB, First Floor

Working Group Meetings

Working Group AS Business Meeting	Thu. 8:00 AM–6:15 PM	Convention Center Room 102A, First Floor
Working Group CR Business Meeting	Thu. 5:00 PM–6:00 PM	Convention Center Room 107AB, First Floor
Working Group DSM Business Meeting	Thu. 5:00 PM–6:00 PM	Convention Center Room 102B, First Floor
Working Group LD Business Meeting	Thu. 5:00 PM–6:00 PM	Convention Center Room 110A, First Floor
Working Group RB Business Meeting	Thu. 5:00 PM–6:00 PM	Convention Center Room 110B, First Floor
Working Group SU Business Meeting	Thu. 5:00 PM–6:00 PM	Convention Center Room 111AB, First Floor
Working Group SCE Business Meeting	Thu. 5:00 PM–6:00 PM	Convention Center Room 112AB, First Floor
Working Group SCA Business Meeting	Thu. 5:00 PM–6:00 PM	Convention Center Room 113C, First Floor

Additional Meetings

*ASA-CSSA-SSSA Northeast Branch Meeting	Tues. 8:00 AM–6:15 PM	Marriott Room 302–304, Third Floor
*Association of Chinese Soil and Plant Scientists of North America	Tue. 2:00 PM–4:00 PM	Convention Center Room 112AB, First Floor
*European Confederation of Soil Science Societies Council Meeting	Tue. 7:00 PM–10:00 PM	Convention Center Room 112AB, First Floor
*Advisory Committee of the European Journal of Soil Science	Fri. 2:00 PM–5:00 PM	Convention Center Room 102B, First Floor