

CSA News Convention Edition

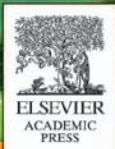
Salt Lake City, Utah
6-10 Nov. 2005



Inside:
Events
Symposia
Expo '05
Awards

2005 International Annual Meetings

American Society of Agronomy • Crop Science Society of America
Soil Science Society of America



from Elsevier

NEW TITLES IN AGRONOMY, PLANT AND SOIL SCIENCE



New Volumes in Advances in Agronomy

Serial Editor Donald Sparks

Volume 87 COMING SOON!

Topics include:

- ❖ Antibiotics use in agriculture and their impact on the terrestrial environment
- ❖ The sustainability of irrigation
- ❖ Efficiency of fertilizer nitrogen in cereal production: Retrospects and prospects
- ❖ Wide compatibility systems and its exploitation for yield enhancement in rice
- ❖ Seed filling in grain legumes (pulses) under water deficits with emphasis on chickpea

September 2005, Hardback, c.400pp., \$139.95/£94.95/€125.00, ISBN: 0120007851

Volume 86

Topics include:

- ❖ Arsenic contamination and its risk management in complex environmental settings
- ❖ Biological control of weeds with antagonistic plant pathogens
- ❖ Nutrient stocks, nutrient cycling and soil changes in cocoa ecosystems
- ❖ Interactions of nitrogen with other nutrients and water: Effect on crop yield and quality, nutrient use efficiency, carbon sequestration and environmental pollution

April 2005, Hardback, 400 pp., \$139.95/£94.95/€125.00, ISBN: 0120007843

Volume 85

Topics Include:

- ❖ Bioindustrial and biopharmaceutical products produced in plants
- ❖ Architecture models to meet future agricultural challenges
- ❖ Labile organic matter
- ❖ Fractions as central components of the quality of agricultural soils
- ❖ Aspects of jojoba agronomy and management.

February 2005, Hardback, 464 pp., \$139.95/£94.95/€125.00, ISBN: 0120007835

Advances in Botanical Research, Volume 41

Serial Volume Editor J.A. Callow

This eclectic volume features five reviews on cutting-edge topics of interest to post-graduates and researchers alike. Topics include: Multiple Responses of Rhizobia to Flavonoids During Legume Root Infection, Investigating and Manipulating Lignin Biosynthesis in the Post-Genomic Era, Sequences and Phylogenies of Plant Pararetroviruses, Viruses and Transposable Elements, and The Role of Plasmodesmata Regulation in Plant Development.

December 2004, Hardback, 260 pp., \$159.95/£104.95/€157.00, ISBN: 012005941X

Development of Pedotransfer Functions in Soil Hydrology

Developments in Soil Science, Volume 30

Edited by Y. Pachepsky & W.J. Rawls

Development of Pedotransfer Functions in Soil Hydrology offers novel approaches based on data mining, artificial intelligence, fuzzy logic, and modern statistics to discover pedotransfer relationships to estimate soil water retention, soil hydraulic conductivity, parameters of solute retention and transport, and parameters of soil erosion processes. Both developers and users of pedotransfer functions will benefit from the comprehensive reviews, specific examples, and user-oriented approaches that the book presents.

December 2004, Hardback, 530 pp., \$184.95/£115.00/€169.00, ISBN: 0444517057

Vital Soil

Developments in Soil Science, Volume 29

Edited by Peter Doelman and H. Ejsackers

Healthy soil, with active soil life, deters long-term soil degradation and ensures that geo-physical processes are undisturbed. Vital Soil aims to look at the effects society is having on soil and contains contributions from recognized experts.

December 2004, Hardback, 350 pp., \$129.95/£80.00/€119.00, ISBN: 0444517723

COMING SOON!

The Triazine Herbicides Chemicals in Agriculture, Volume 3

Edited by LeBaron

July 2006, Hardback, 1300 pp., (tentative) \$439.00/£250.00/€360.00, ISBN: 0444511679



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Welcome to Salt Lake City!



Crop Science Society of America Celebrates 50th Anniversary

The Crop Science Society of America (CSSA) will celebrate its 50th anniversary during this year's annual meeting. In 1955, the organization adopted its name, and G.O. Mott was named the first CSSA President. CSSA's scientific contributions over the last 50 years will be prominently featured at the annual meeting. Of particular note—on Tuesday, 8 November, there will be a day-long symposium where each Division will highlight the most significant scientific events in its history.

This year's meeting will be a special occasion when we not only continue our exploration of the frontiers of knowledge, but we also pause and reflect on all that has gone before. Honoring our past is a wonderful way to gain inspiration and invigorate our Society—we hope you can join us for the celebration!



CSSA's Anniversary-Inspired Project: The Golden Opportunity Scholars Institute

CSSA has a golden opportunity to develop an outstanding cadre of young crop scientists to provide leadership in coming decades with its new anniversary-inspired project: The Golden Opportunity Scholars Institute. The Institute will be a professional development program directed at baccalaureate-level college and university students. It will be modeled after the highly successful World Food Prize Youth Institute, which focuses on attracting high school students into international agricultural careers.

Our objective is to select 50 to 100 of the most promising undergraduate students from all regions of the U.S. and the world and bring them to the annual meeting. During the meeting, we will hold sessions for these Golden Opportunity Scholars to hear presentations from high-profile agricultural scientists, present their own papers, and gain exposure to the wonders of our many disciplines. The scholars will network with other stu-

dents in undergraduate clubs as well as professional members in research, teaching, and extension/outreach. A number of mentoring activities and an alumni network will be planned so that a significant number of these young students will be inspired to enroll in crop science-related programs and become the next generation of leaders in our profession.

To accomplish this goal, we need the help of CSSA members to organize an annual Golden Opportunity Scholars Symposium, recruit participants, mentor students, and support fund development. Our vision is to recruit major sponsors to support a large number of participants during the 2005–2006 inaugural year, while building a Golden Opportunity Institute Endowment supported by CSSA members and friends to continue the program indefinitely. To learn more about the project and to make a contribution, visit the ASF booth (number 328) in the Exhibit Hall.

Make a Contribution at the Meetings and Double the Value of Your Gift!

You can join us in making the Golden Opportunity Scholars Institute a reality! The Agronomic Science Foundation (ASF) has been given two challenge grants in support of the program. One \$25,000 grant will be used to match individual gifts, and another \$25,000 grant will be used to match corporate gifts, doubling the value of any gifts given during the annual meeting. If you would like to support the Golden Opportunity Scholars Institute, you can make your donation at the Registration table (East Lobby, Upper Level) or at the ASF booth (number 328) in the Exhibit Hall. More information on the Institute is available at the ASF booth.



"Now's the Time!" Campaign

Donate to the Smithsonian Soils Exhibit at the Meetings and Double Your Money!

ASA, CSSA, SSSA, and ASF have issued a Matching Challenge Grant for contributions to the Smithsonian Soils Exhibit during the annual meetings. Aptly named "Now's the Time!," this campaign invites you to make our presence at the Smithsonian a reality. Every dollar you give at the annual meetings for the Smithsonian Soils Exhibit will be matched. If you'd like to make a gift at the meetings, please make your check payable to ASF, with "Now's the Time!" on the memo line, and give it to a Society staff member at the registration table, located in the East Lobby of the Convention Center. Credit card gifts will also be accepted here. The Matching Challenge Grant is



Smithsonian
Institution

one of a variety of "Now's the Time!" initiatives being planned during the annual meetings—watch for posters featuring final concept design and floor plans and stop by the Smithsonian Soils Exhibit Booth (number 427) in the main exhibit hall. Also, on Monday afternoon, both the Smithsonian's Exhibit Developer, Barbara Stauffer, and the head of the design firm, Beth Miles of mfm design in DC, will unveil the recently completed concept design materials at a special event called "Now's the Time: A Q&A with the Smithsonian Soils Exhibit Designers," from 3–4 pm at the Marriott Downtown, Grand Ballroom Salon F, Lobby Level. This event will be followed by a Smithsonian Reception from 4–5 pm.

Visit Our Booths to Learn More about Society-Related Activities, Opportunities

Agronomic Science Foundation

Booth 328

The Agronomic Science Foundation (ASF) supports the professions of agronomy, crop, and soil science, in conjunction with ASA–CSSA–SSSA, through scholarships, lectureships, conferences, and awards. ASF depends on generous support from Society members and a variety of concerned friends who take pride in knowing that they have helped provide exceptional educational opportunities for students, educators, researchers, growers, industry leaders, and consumers around the world. Stop by and learn more about the opportunities offered through ASF.

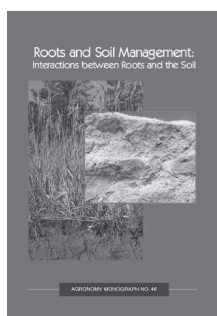


ASA–CSSA–SSSA Publications

Booth 324

On Wednesday from 10:00–11:00 am, Richard W. Zobel, co-editor of Agronomy Monograph 48, *Roots and Soil Management: Interactions Between Roots and the Soil*, will be signing books.

Purchase a book or CD from the Society Publications Booth and receive a **15% meeting discount**. Members also receive a 20% member discount for a total discount of 35%! Thirty-two of our newest books and CDs will be available for browsing and on-site purchase.



ASA–CSSA–SSSA Member Services

Upper Level, near 250A

Questions about your membership or the benefits of becoming a member? Visit the ASA–CSSA–SSSA Membership Booth in the upper level, overlooking the exhibit hall. We would like to meet you and explain how Soci-

ety membership can help you advance your career. Learn how to navigate the web pages, serve on a committee, become a journal reviewer, or submit an article for *CSA News*.

Science Policy Action Center

Booth 326

Don't miss the opportunity to contact your Congressional delegation in real-time using the Societies electronic grassroots advocacy resource, Science Policy Action Center. Tell your two senators and your representative to support funding for research, education, extension, and/or conservation; send a message about a specific issue of interest to you; or just send a friendly greeting. Director of Science Policy Karl Glasener, Congressional Science Fellow Melissa Ho, and Science Policy Intern Tabitha Brown will be available to assist you at the Societies' Science Policy Action Center booth. So stop on by and get involved in policymaking. It's fast and easy. In the meantime, you can learn how to speak up for our sciences and become involved in policymaking at our Science Policy Action Center, www.sciencepolicyaction.org. Take a moment to explore this membership benefit.



World Congress of Soil Science

Booth 425

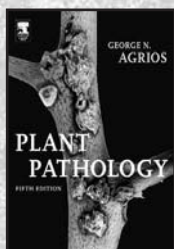
Visit our booth and learn how to submit your abstract and register for the World Congress of Soil Science (WCSS), 9–15 July 2006 in Philadelphia, PA. Enter your business card in our drawing for a free WCSS registration, a \$550 value, or a ticket to the Gala Dinner, a \$75 value. Other prizes include a Mid-Congress tour, valued at \$110–\$185, and a gift certificate for a dinner at Reading Terminal Market.



New & Recent Titles from Academic Press, an imprint of Elsevier

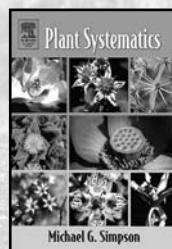


Visit Booth #128 for 15% - 20% discounts on these titles and many more!



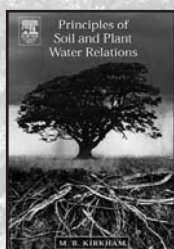
Plant Pathology, 5th Edition

George N. Agrios
December 2004, ISBN 0-12-044565-4,
Hardback, 922 pp., \$79.95



Plant Systematics

Michael G. Simpson
September 2005, ISBN 0-12-644460-9,
Hardback, 608 pp., \$69.95



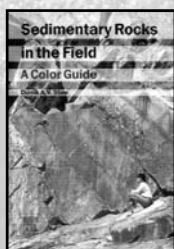
Principles of Soil and Plant Water Relations

M.B. Kirkham
October 2004, ISBN 0-12-409751-0,
Hardback, 520 pp., \$79.95



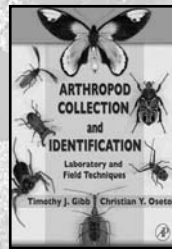
Fundamentals of Soil Ecology, 2nd Edition

David C. Coleman, D.A. Crossley, Jr.,
& Paul F. Hendrix
July 2004, ISBN 0-12-179726-0,
Paperback, 386 pp., \$49.95



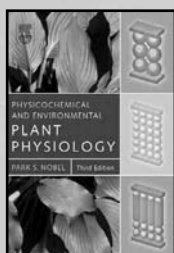
Sedimentary Rocks in the Field: A Color Guide

Dorrik A. V. Stow
March 2005, ISBN 0-12-369451-5,
Paperback, 320 pp., \$39.95



Arthropod Collection and Identification: Laboratory and Field Techniques

Timothy J. Gibb & Christian Y. Oseto
November 2005, ISBN 0-12-369545-7,
Paperback, 336 pp., \$34.95



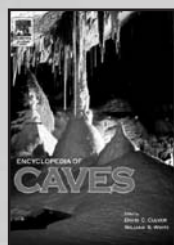
Physicochemical and Environmental Plant Physiology, 3rd edition

Park S. Nobel
February 2005, ISBN 0-12-520026-9,
Hardback, 567 pp., \$79.95



Developments in Pedotransfer Functions Developments in Soil Hydrology, Volume 30

Edited By: Ya. Pachepsky & W. J. Rawls
December 2004, ISBN 0-444-51705-7,
Hardback, 530 pp., \$184.95



Encyclopedia of Caves

Edited by: David C. Culver
& William B. White
October 2004, ISBN 0-12-198651-9
Hardback, 670 pp., \$99.95

Visit Booth #128 to preview this upcoming release

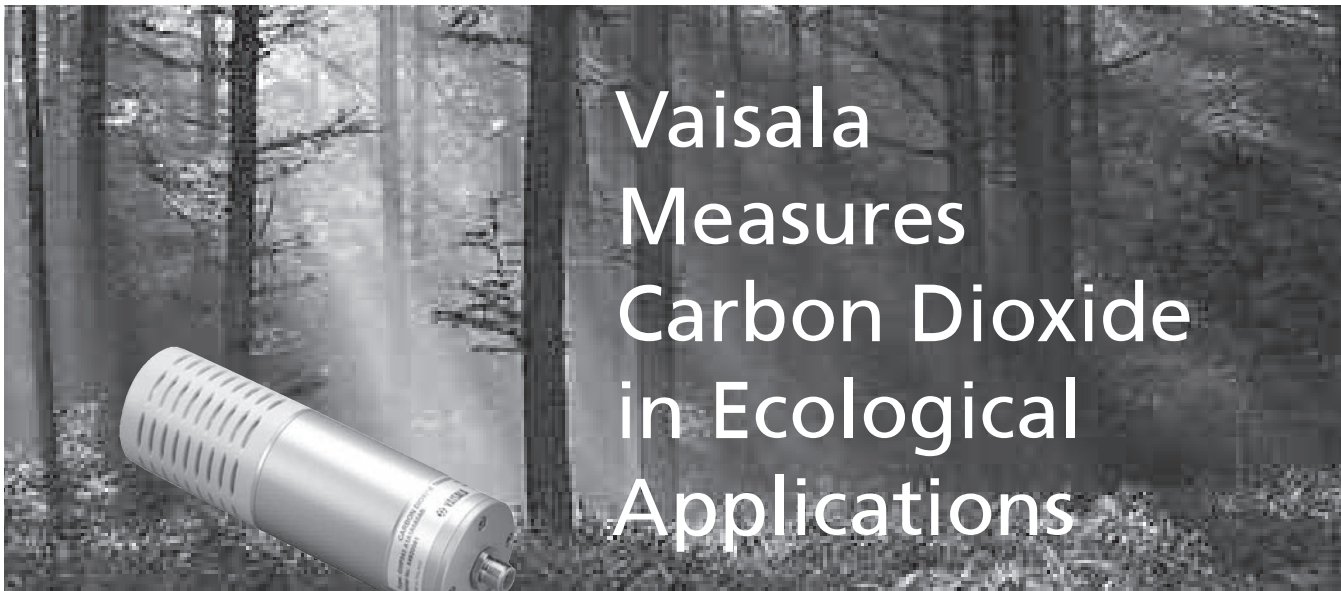
Agriculture's Ethical Horizon

Robert L. Zimdahl

February 2006, ISBN 0-12-370511-8
Paperback, c.250 pp., \$39.95

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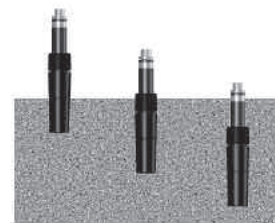
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FEATURED EVENTS

Events are at the Salt Palace Convention Center unless otherwise noted—see corresponding pages in the Program Book for more information. Events are free and open to all attendees, except those marked with an asterisk (*), which require tickets, available for purchase at the Registration Center in the East Lobby, Upper Level.

- Registration**—7:30 am–8:30 pm, East Lobby, Upper Level (p. 6)
SASES Registration, Breakfast, Business Meeting—8:30–11:30 am, Ballroom BD, Lower Level (p. 40)
C-5 Turfgrass Tour—9:45 am–5:00 pm, South Lobby, Lower Level (p. 15)*
SASES Student National Club Poster Contest—12:00–2:30 pm, East Lobby, Upper Level (p. 40)
SASES National Student Research Symposium Oral Contest: I—12:55–3:30 pm, Room 251AB, Upper Level (p. 41)
SASES National Student Research Symposium Oral Contest: II—12:55–3:15 pm, Room 251DEF, Upper Level (p. 42)
Employer and Applicant Check-in—1:00–6:00 pm, Ballroom AC, Lower Level (p. 11)
SASES National Speech Contest, Preliminary—3:30–5:50 pm (p. 43)
Cooperating Societies Reception—4:30–5:30 pm, Marriott Downtown, Grand Ballroom Salon AB, Lobby Level (p. 30)
First-Time Attendee Orientation—6:00–6:45 pm, Room 150G, Lower Level (p. 44)
11th North America Forest Soils Conference—6:00–8:00 pm, Radisson Downtown, Cottonwood 2, Lobby Level (p. 27)
C-5 Extension Roundtable—The Extension Specialist and Legal Issues (or What Do You Mean It's a Sub-poena?)—6:55–8:50 pm, Room 151G, Lower Level (p. 45)
SASES National Speech Contest, Finals—7:00–8:00 pm, Room 251DEF, Upper Level (p. 43)
E.T. and Vam York Distinguished ASA Lectureship—7:00–8:00 pm, Ballroom BD, Lower Level (p. 44)
SASES Student Quiz Bowl—8:00–10:30 pm, Room 251DEF, Upper Level (p. 43)
ASA-CSSA-SSSA Opening Reception—8:00–11:00 pm, North Ballroom Foyer, Lower Level (p. 44)

First-Time Attendees: Sunday's Orientation Can Help You Maximize Your Experience

Those new to the annual meetings are invited to attend the First-Time Attendee Orientation session from 6:00–6:45 pm Sunday evening in the Convention Center, Room 150G, Lower Level. We'll help you conquer the meeting maze and provide valuable tips to maximize your experience, including:

- Welcome & introduction to Salt Lake City
- Navigating the program book
- 'Must attend' meetings and sessions
- Networking and socializing opportunities
- Guide to the Convention Center
- Light refreshments

Please plan to attend. Guests are welcome!

Korean Ambassador to Give York Lecture

Choe Yangboo, Korean Ambassador to Argentina, will be the speaker for the fourth annual E.T. and Vam York Distinguished ASA Lectureship Sunday evening from 7:00–8:00 pm at the Convention Center, Ballroom BD, Lower Level. The title of Ambassador Choe's lecture is "Agricultural Imagination and New Challenges of Agronomic Scientists Towards the 21st Century."



Choe Yangboo

Ambassador Choe has a background in agricultural economics, receiving his B.S. and M.S. degrees from Seoul National University and his Ph.D. from the University of Missouri, Columbia. He has served in numerous advisory/specialist positions in the Korean Government, including Senior Secretary and Chief Policy Advisor of Agricultural, Forestry, Fisheries, and Rural Affairs. He also worked as President of The Agrofood Newmarketing Institute and Vice-President of the Korea Rural Economic Institute.

Ambassador Choe has held leadership positions with a number of professional societies/corporations and forums, including the Asian Society of Agricultural Economists, the Korea Agricultural and Rural Infrastructure Corporation (KARICO), Food and Agrofisery Forum for Peace and Reunification, and the Gyeongbook World Agri-Culture Forum. He has received numerous awards and honors over his career, including Honorary Chair Professor, Mirayng National University; Order of Public Service Merit (Yellow Stripes), The Government of Korea; and Honorary Adjunct Professor of Agricultural Economics and the International Agricultural Leadership Award, College of Agriculture, Food and Natural Resources, University of Missouri, Columbia.

The E.T. and Vam York Distinguished ASA Lectureship was established by Dr. and Mrs. E.T. York, Jr. in recognition of the importance of agronomic science and Dr. York's impact on the profession as evidenced by his contributions to research, education, and administration. The Lectureship is made possible by a gift from Dr. and Mrs. York to the Agronomic Science Foundation. This endowment fund supports excellence in programming to provide a cutting-edge lectureship based on value and timeliness of a topic and its relationship to issues currently of importance to the profession.

Following the York Lecture, Please join us for camaraderie and refreshments as we celebrate the opening of the annual meetings at the Society-wide Opening Reception—8:00–11:00 pm, Convention Center, North Ballroom Foyer, Lower Level. All are invited to attend.

THE BIOLOGY OF SOIL

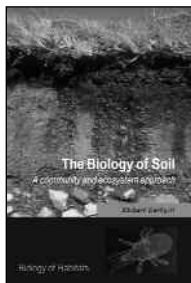
A Community and Ecosystem Approach

Richard D. Bardgett, University of Lancaster

This book is unique in providing a comprehensive, up-to-date synthesis of what is known about soil biodiversity and the factors that regulate its distribution, as well as the functional significance of below-ground biodiversity for ecosystem form and function. It provides an introduction to the biology of soil, and discusses the most recent developments in this progressive field of ecology. The importance of soil biotic interactions on community and ecosystem ecology is illustrated through the use of numerous examples and case studies. *The Biology of Soil* provides an excellent introduction to the subject for anyone working in the field of soil ecology and related disciplines. It will be ideal for students taking undergraduate and postgraduate courses in soil ecology, plant-soil relationships, ecosystem ecology, and land management.

(Biology of Habitats)

2005 256 pp.; 57 halftones, 28 line illus.
0-19-852503-6 paper ~~\$54.50~~/\$43.60
0-19-852502-8 cloth ~~\$124.50~~/\$99.60



A FIELD GUIDE FOR SCIENCE WRITERS

The Official Guide of the National Association of Science Writers

Second Edition

Edited by Deborah Blum, University of Wisconsin-Madison, Mary Knudson, and Robin Marantz Henig

In the eight years since the publication of the first edition of *A Field Guide for Science Writers*, much about the world has changed. Some of the leading issues in today's political marketplace—embryonic stem cell research, global warming, health care reform, space exploration, genetic privacy, germ warfare—are informed by scientific ideas. Never has it been more crucial for the lay public to be scientifically literate. That's why it was time to update the Field Guide, already a staple of science writing graduate programs across the country. More than 50 institutions now offer training in science writing. In addition, mid-career fellowships for science writers are growing, giving journalists the chance to return to major universities for specialized training. In *A Field Guide for Science Writers, 2nd Edition*, the editors have assembled contributions from a collection of experienced journalists who are every bit as stellar as the group that contributed to the first edition. These leaders in the profession describe how they work their way through the information glut to find the gems worth writing about. The book also features chapters that provide the tools every good science writer needs: how to use statistics, how to weigh the merits of conflicting studies in scientific literature, how to report about risk, and, ultimately, how to write.

2005 368 pp.
0-19-517498-4 cloth ~~\$45.00~~/\$36.00
0-19-517499-2 paper ~~\$18.95~~/\$15.16



SAVING SEEDS

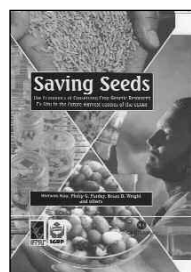
The Economics of Conserving Crop Genetic Resources Ex Situ in the Future Harvest Centres of the CGIAR

Bonwoo Koo, International Food Policy Research Institute, Washington, D.C., Philip G. Pardey, University of Minnesota, and Brian D. Wright, University of California, Berkeley

The conservation of genetic resources is vital to the maintenance of biodiversity and to the world's ability to feed its growing population. There are now more than a thousand genebanks worldwide involved in the *ex situ* (meaning "away from the source") storage of particular classes of crops. Since the 1970s, the eleven genebanks maintained by the centers of the Consultative Group on International Agricultural Research (CGIAR) have become pivotal to the global conservation effort. However, key policy and management issues—usually with economic dimensions—have largely been overlooked. This provided the impetus for a series of detailed economic studies, led by IFPRI, in collaboration with five CGIAR centers: CIAT (based in Colombia), CIMMYT (Mexico), ICARDA (Syria), ICRISAT (India) and IRRI (Philippines). This book reports these studies and discusses their wider implications.

(CABI Publishing)

2004 240 pp.; 11 figures
0-85199-859-3 ~~\$90.00~~/\$72.00



FLOWER SEEDS

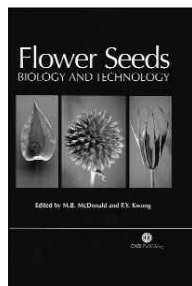
Biology and Technology

Edited by Miller B. McDonald, Ohio State University, and Francis Y. Kwong, PanAmerican Seed Company, West Chicago

This book provides a unique, much-needed resource of information on the biology and technology of flower seeds. The floral industry represents a significant proportion of agricultural income in several developed countries, particularly the U.S., the Netherlands, and Japan. The diversity of flower seeds, as well as their form, function and biology, has hitherto daunted the production of a comprehensive treatment of the topic. However, in this volume, international authorities from academia and industry have been sought together to provide a comprehensive reference resource for both practitioners and students of seed science and technology and of ornamental horticulture.

(CABI Publishing)

2005 384 pp.; 48 color plates, 30 halftones
0-85199-906-9 ~~\$175.00~~/\$140.00



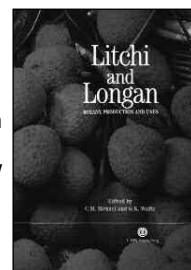
LITCHI AND LONGAN

Botany, Cultivation and Uses

Edited by C. Menzel, S. K. Mitra, and G. K. Waite, both at Maroochy Research Station, Australia. Litchi (*Lychee*) and the related fruit longan are grown extensively in China and South-East Asia, as well as in Australia, Florida (USA), Southern Europe and Southern Africa. This book represents the only comprehensive, balanced and internationally focused publication on these fruit. It covers all aspects of production, from taxonomy and breeding, to propagation, flowering and fruit set, to diseases, pests and postharvest storage and processing. Written by leading scientists from Australia, China, India, Israel, Thailand and the US, the book represents the standard work on its subject.

(CABI Publishing)

2005 400 pp.
0-85199-696-5 ~~\$140.00~~/\$112.00



VALUING CROP BIODIVERSITY

On-Farm Genetic Resources and Economic Change

Edited by M. Smale, International Food Policy Research Institute, Washington, D.C.

In agricultural systems, a diversity of crops and varieties is essential to combat the risks farmers face from pests, diseases and variations in climate. Crop biodiversity also underpins the range of dietary needs and services that consumers demand as economies change. This book contributes to a better understanding of the challenges involved in maintaining local crop biodiversity within a rapidly changing global food system, and to policy debates related to the Convention on Biological Diversity. It provides empirical studies conducted in the field with farmers and crop scientists across a range of agricultural economies and income levels, applying economic tools and methods for valuing and managing crop biodiversity on farms.

(CABI Publishing)

November 2005 352 pp.
0-85199-083-5 ~~\$110.00~~/\$88.00

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FEATURED EVENTS

Events are at the Salt Palace Convention Center unless otherwise noted—see corresponding pages in the Program Book for more information. Events are free and open to all attendees, except those marked with an asterisk (*), which require tickets, available for purchase at the Registration Center in the East Lobby, Upper Level.

- Frank N. Meyer Medal Breakfast**—6:30–8:00 am, Marriott Downtown, Grand Ballroom Salon C, Lobby Level (p. 67)*
- Registration**—7:30 am–5:00 pm, East Lobby, Upper Level (p. 6)
- C-5 Graduate Student Oral Competition**—7:40 am–12:20 pm, Ballroom J, Lower Level (p. 80)
- SASES Graduate School Workshop**—8:00–9:30 am, Room 150ABC, Lower Level (p. 46)
- SASES National Student Research Symposium Poster Contest: I**—8:00–10:00 am, Exhibit Hall ABC, Lower Level (p. 46)
- Employer and Applicant Check-in**—8:00 am–5:00 pm, Ballroom AC, Lower Level (p. 11)
- Posters on Display**—8:00 am–6:00 pm, Exhibit Hall ABC (p. 11)
- Companion Breakfast**—8:30 am–12:00 pm, Marriott Downtown, Grand Ballroom Salon D, Lobby Level (p. 30)*
- Exhibits Open**—9:00 am–6:00 pm, Exhibit Halls ABC (p. 10)
- Graduate School Interviews**—9:30 am–12 pm, Ballroom AC, Lower Level (p. 11)
- C-3 Graduate Student Poster Contest**—10:00 am–12:00 pm, Exhibit Hall ABC, Lower Level (p. 75)
- SASES Graduate Student Poster Contest**—10:00 am–12:00 pm, Exhibit Hall ABC, Lower Level (p. 75)
- Women in Agronomy, Crops, Soils & Environmental Sciences Luncheon**—11:30 am–1:00 pm, Marriott Downtown, Grand Ballroom Salon ABC, Lobby Level (p. 48)*
- Student Mentor Program**—12–1:30 pm, Room 150ABC, Lower Level (p. 11)
- Science Policy Forum: Communicating with Congress: How to Advocate for Increased Funding**—1:00–2:30 pm, Room 251E, Upper Level (p. 48)
- S.A. Wilde Distinguished Lectureship on Forest Soils**—1:30–2:30 pm, Room 151DEF, Lower Level (p. 121)
- You're Hired! Smart Job Search Strategies from Insiders**—1:30–3:50 pm, Room 251F, Upper Level (p. 49)
- Open Job Interviews**—1:30–4 pm, Ballroom AC, Lower Level (p. 11)
- Now's the Time: A Q&A with the Smithsonian Soils Exhibit Designers**—3:00–4:00 pm, Marriott Downtown, Grand Ballroom Salon F, Lobby Level
- Smithsonian Reception**—4:00–5:00 pm, Marriott Downtown, Grand Ballroom F, Lobby Level (p. 30)
- S-3 Graduate Student Poster Competition**—4:00–6:00 pm, Exhibit Hall ABC, Lower Level (p. 104)
- Sustainable and Organic Agriculture Roundtable**—4:30–6:50 pm, Ballroom E, Lower Level (p. 49)
- Professional Soil Scientists Reception**—5:00–7:00 pm, Marriott Downtown, Grand Ballroom Salon F, Lobby Level (p. 30)
- Minority Student Poster Contest and Reception**—5:30–8:30 pm, Room 150G, Lower Level (p. 50)
- Calvin Sperlberg Biodiversity Memorial Lectureship**—7:00–8:05 pm, Ballroom E, Lower Level (p. 92)
- SASES Social**—9:00 pm–12:00 am, Radisson Downtown, Wasatch 1-3, Second Floor (p. 47)

Technical Networking is the Topic of Women Group's Luncheon

"Ideas and Suggestions for Successful Technical Networking" is the title of the panel discussion planned for the popular ACS526 Women in Agronomy, Crops, Soils, and Environmental Sciences luncheon on Monday from 11:30 am to 1:00 pm at the Marriott Downtown, Grand Ballroom Salon ABC, Lobby Level.

This year's topic addresses technical knowledge sharing with regard to our scientific disciplines. Very often project success in our sciences depends more and more on cross-group interactions.

Panel participants will share their insights on how they have succeeded in fostering their technical networks. Insights and suggestions will be presented by these panel participants:

- **Margaret Smith**, Department of Plant Breeding and Genetics at Cornell University
- **Kimberlee Kidwell**, Department of Crops and Soils at Washington State University; and
- **Daria Schmidt**, Research Director at Pioneer Hi-Bred International, Inc.

Everyone is welcome and encouraged to attend this event. Luncheon tickets can be purchased at Registration in the East Lobby of the Salt Palace Convention Center.

In addition, those interested are invited to attend the ACS526 Women in Agronomy, Crops, Soils, and Environmental Sciences Committee Meeting scheduled on Monday from 1:30 to 3:00 pm at the Marriott Downtown, Cottonwood, Lobby Level.



Margaret Smith



Kimberlee Kidwell



Daria Schmidt

Special Dietary Needs? We Got You Covered!

If you have special dietary needs for any of the food functions you'll be attending, stop by the Velcro Sales/Dietary Requests Counter at the Registration Center located in the East Lobby, Upper Level of the Convention Center and fill out a form indicating your needs. You will receive a receipt and when placed on the table by the guest, the receipt indicates to the server that a special meal has been requested. All requests must be received at least 24 hours in advance.

Two New Professional Development Sessions on Tap for Monday Afternoon

Students will have the opportunity to gain instant access to member professionals at the first-ever Student Mentor Program on Monday afternoon from 12:00–1:30 pm in Room 150 ABC, Lower Level of the Convention Center. The program provides an opportunity for students and mentors to discuss professional opportunities and challenges in the workplace. It is a way for mentors (members) to give back to the profession and provide information to students about the inner workings of the real world. Most importantly, students will gain networking information for later follow-up. The luncheon program will accommodate 40 students on a first-come, first-served basis.

Following the Student Mentor Program, get inside information on job search strategies during the new session: “You’re Hired! Smart Job Search Strategies from Insiders,” from 1:30–3:50 pm in Room 251F, Upper Level of the Convention Center. This three-part program will include the following topics: How to Search for a Job (1:30–2:10 pm), Interviewing Like a Winner (2:20–3:00 pm), and Negotiating for a Raise (3:10–3:50 pm). The program is aimed at anyone looking for a position and who wants to learn more about these job-searching tools.

Learn How to Advocate for Increased Funding at the Science Policy Forum

You are invited and encouraged to attend this year’s Science Policy Forum, “Communicating with Congress: How to Advocate for Increased Funding,” on Monday from 1:00–2:30 pm in Room 251 E of the Convention Center. This session, led by the Societies’ Director of Science Policy Karl Glasener, will provide a real-time demonstration of our grassroots advocacy resource (Science Policy Action Center), as seeing is believing. A panel composed of House and Senate staff members, a federal agency representative, and a citizen scientist (one of our member scientists active in policy-making) will give their thoughts concerning how to effectively engage Congress to increase funding for research, education, extension, and conservation. A discussion will follow. Your voice really does make a difference—please join us and learn how to become an effective advocate for science!



Karl Glasener

Also, be sure to stop by our Science Policy Action Center Booth (number 326) to learn more about how to get involved in policymaking.

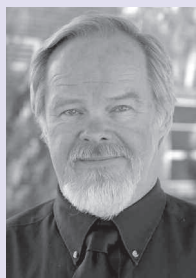
FEATURED SYMPOSIA

Symposia are at the Salt Palace Convention Center unless otherwise noted—see corresponding pages in the Program Book for more information.

- Sustainability of Agriculture, Environment, and Food Security**—Div. A-6—8:00 am–3:15 pm, Room 250C, Upper Level (p. 59)
- Managing the Ecosystem CO₂ Dynamics of Carbon Sequestration**—Div. C-6, C-3—8:10 am–12:00 pm, Room 251D, Upper Level (p. 84)
- Twenty Years of Military Level Environmental Research**—Div. A-2—8:25–11:30 am, Room 150D, Lower Level (p. 51)
- Emerging Technologies for Real-time Integrated Management**—Div. A-8, A-5, S-4, S-8—8:25 am–12:00 pm, Room 250E, Upper Level (p. 61)
- Pulse Crop Ecology in North America: Impacts on Environment, N Cycle, Soil Biology, Pulse Adaptation and Human Nutrition**—Div. C-3—8:25 am–12:00 pm, Room 251B, Upper Level (p. 75)
- Status of Experiment Stations in the Southwest: Opportunities and Challenges**—Div. A-7, 8:30–11:35 am, Room 250D, Upper Level (p. 60)
- Nutrient Use Efficiency in Production Agriculture**—Div. A-9—8:30 am–12:10 pm, Room 250F, Upper Level (p. 66)
- The Physiology Behind Crop Quality**—Div. C-2, C-1, C-3, C-4—8:50–11:30 am, Room 251A, Upper Level (p. 73)
- Chemistry of Wetland Soils: Honoring the Work of Dr. Bill Patrick**—Div. S-10—8:55–11:45 am, Room 251C, Upper Level (p. 127)
- Water and Chemical Fluxes from the Pore to Landscape Scale: I**—Div. S-1, S-11—8:55 am–12:00 pm, Ballroom G, Lower Level (p. 93)
- Soil Analysis for Nutrient Management Planning. Is Laboratory Performance Necessary?**—Div. S-10—9:25 am–12:45 pm, Ballroom E, Lower Level (p. 125)
- Moving from Environmental Data to Environmental Policy: I. Intersection of Science and Society**—Div. S-11, A-5—9:40 am–12:05 pm, Room 151ABC, Lower Level (p. 132)
- A Tribute to Arvin Mosier**—Div. S-3—9:55 am–3:20 pm, Hilton Hotel, Grand Ballroom C, Second Floor (p. 103)
- Humic Substances as Environmental Sorbents: I**—Div. S-2—10:00 am–12:00 pm, Exhibit Hall ABC, Lower Level (p. 99)
- Genetics and Breeding of Disease Resistance**—Div. C-1, C-7, C-8—12:55–4:00 pm, Ballroom F, Lower Level (p. 69)
- The Frontiers in Plant Science Symposium—Light, Chronobiology, and the Molecular Mechanisms of Plant Development**—Div. C-7, C-1, C-2, C-4—1:00–5:45 pm, Ballroom BD, Lower Level (p. 88)
- Water and Chemical Fluxes from the Pore to Landscape Scale: II**—Div. S-1, S-11—1:10–3:15 pm, Ballroom G, Lower Level (p. 94)
- Dynamic Cropping Systems for Soil & Water Conservation**—Div. S-6—1:10–4:15 pm, Ballroom J, Lower Level (p. 115)
- Update of Soil Liming Recommendations**—Div. S-4—1:15–4:05 pm, Room 251D, Upper Level (p. 107)
- Philosophies and Approaches for Developing Environmental Guidelines and Regulation for Land-Applied Waste Constituents**—Div. A-5, S-11—1:25–6:00 pm, Room 151G, Lower Level (p. 58)
- Pulse Crop Ecology**—Div. C-3—4:00–6:00 pm, Exhibit Hall ABC, Lower Level (p. 78)
- Water and Chemical Fluxes from the Pore to Landscape Scale: III**—Div. S-1, S-11—4:00–6:00 pm, Exhibit Hall ABC, Lower Level (p. 95)
- Revisiting Metal Behavior in Biosolids Amended Soils: Applying Knowledge Gained to an Understanding of Behavior of Metals in Soils Systems: I**—Div. S-2, 4:30–6:00 pm, Exhibit Hall ABC, Lower Level (p. 101)

'Biogeochemical Cycling' the Topic of Wilde Lecture

Dale Johnson, Professor of Soil Science at the University of Nevada, Reno, will give the Serge A. Wilde Lecture on Monday afternoon from 1:30–2:30 pm in Room 151DEF of the Convention Center. The topic of his presentation is “Biogeochemical Cycling Research: From Its Origins in Forest Soil Science to Recent Developments.”



Dale Johnson

Dr. Johnson's research interests are in soil chemistry and nutrient cycling and have included studies on the effects of atmospheric deposition, fertilization, harvesting, elevated CO₂, nitrogen fixation, and fire on soils and forest ecosystems. He earned his B.S. in Forest Science and his Ph.D. in Forest Soils at the University of Washington in 1969 and 1975, respectively. Johnson has been a Fellow of the American Association for the Advancement of Science since 1985 and a Fellow of SSSA since 1995.

The Serge A. Wilde Lectureship focuses on current and emerging developments in the area of forest soils, with emphasis on service and technology and educational and policy issues. The Lecture is used to help keynote symposia or other activities sponsored by Division S-7 Forest Soils at the SSSA Annual Meeting. The lecturer selected each year is a distinguished scholar who has made significant contributions to some aspect of forest soils, or who has made significant contributions to environmental, socioeconomic, or policy issues that relate to the management of forest soils. Funding for the Lectureship was established through the Agronomic Science Foundation, and the program is administered by SSSA.

Roundtable to Bring Together Nationally Known Specialists in Organic Policy, Agricultural Systems

One year old and going strong, the Committee on Organic and Sustainable Agriculture (COSA) of the Societies invites you to the third Roundtable on Sustainable and Organic Agriculture on Monday from 4:30–6:50 pm in room Ballroom E, Lower Level of the Convention Center. There will be a cash bar and food reception at 4:30 pm, featuring a “tasting” of Utah-grown organic value-added agricultural products, and the program featuring nationally known specialists in organic policy and agricultural systems work will begin at 5:00 pm.

Deb Stinner, Ohio State University, will speak about the sustainable systems research work that she and her late husband, Ben Stinner began in Ohio. We will reflect on and remember Ben's foundational work. Lynn Coody, Organic Agsystems Consulting of Eugene, OR, will speak to the “Science behind the National Organic Standards Board (NOSB)” and will bring us up to date on policy surrounding the national organic label.

Participants will then engage in one of four “roundtables” to discuss activities for the upcoming year related to:

1. systems research;
2. NOSB;
3. extension, education, and curriculum; or
4. agriculture research policy.

The mission of COSA is to develop programming, identify emerging issues and policy developments, and seek funding opportunities for research and professional services for ASA–CSSA–SSSA members and divisions interested in sustainable and organic agriculture.

Those sponsoring the COSA event include The Western Sustainable Agriculture Research and Education Program; Small Planet Foods/General Mills; ASA, CSSA, and SSSA; Center for Rural Affairs and the Consortium for Sustainable Agriculture Research and Education Project; Division A-8 Integrated Agricultural Systems, and Division S-3 Soil Biology and Biochemistry.

C-7 Symposium Explores the Frontiers in Plant Science

The premier C-7 event at the annual meetings this year will be the “Frontiers in Plant Science Symposium: Light, Chronobiology, and the Molecular Mechanisms of Plant Development,” on Monday from 1:00–5:45 pm in Ballroom BD, Lower Level of the Convention Center.

At this symposium, you will have the opportunity to learn about scientific advances that are leading to greater understanding of mechanisms underlying how plants (1) generate leaves and flowers from shoot apical meristems, (2) utilize internal “biological clocks” to measure time, and (3) use photoreceptors to sense and react to changes in ambient light conditions.

C-7 Chair Jim Specht notes that “Crop growth and development is of intrinsic importance in many experimental research projects conducted by the scientists and students of our Societies, and of course of interest to crop production professionals and

specialists who also attend the meeting.” For that reason, he encourages conferees to attend all or at least part of this symposium to hear nationally recognized speakers discuss recent developments. Here are the scheduled presentations:

- 1:15–2:15 pm: “Dynamic Genetics: New Methods and Models in Plant Development” by Elliot M. Meyerowitz, California Institute of Technology
- 2:30–3:20 pm: “An Evolving View of the Arabidopsis Circadian Clock,” by C. Robertson McClung, Dartmouth College
- 3:20–4:10 pm: “Phytochromes: The Emerging Picture of Light Sensing and Signal Transduction,” by Robert A. Sharrock, Montana State University

This symposium is a great venue for updating your knowledge of cutting-edge research in plant science—don't miss it!

See the Smithsonian Exhibit Concept Design, Meet the Developer and Designer

We invite you to join us for a special event called, "Now's the Time: A Q&A with the Smithsonian Soils Exhibit Designers," on Monday from 3–4 pm at the Marriott Downtown in Grand Ballroom Salon F, Lobby Level. Both the Smithsonian's Exhibit Developer, Barbara Stauffer, and the head of the design firm, Beth Miles of mfm design in DC, will unveil the recently completed concept design materials. This event will be followed by a Smithsonian Reception from 4–5 pm. In addition to meeting Barbara and Beth, watch for posters featuring final concept design and plan to stop by the Smithsonian Soils Exhibit booth number 427 in the main exhibit hall.

Earn CEUs at the Meetings

Individuals certified through ASA and SSSA (CCA/CPAg/CPSS/CPSC) have the opportunity to earn CEUs during the annual meetings. Division A-8, Integrated Agricultural Systems, and Division A-9, Professional Practitioners, feature sessions on Monday through Wednesday specifically targeted towards these individuals. Additionally, some boards allow CCAs to self-report up to 20 CEUs, while CPAg, CPSS, and CPSC professionals can self-report up to 40 CEUs. See pages 13–14 of the Program Book for more information.

Manuscript Central Training

All *Crop Science* technical and associate editors, authors, and reviewers are encouraged to attend one of the two Manuscript Central Training sessions scheduled for Monday and Tuesday evening at 6:00 pm in Room 253A, Upper Level of the Convention Center.

Crop Science Assistant Editor Carrie Czerwonka will submit a manuscript through Manuscript Central, demonstrate views and options for all roles in the system, and indicate some quirks users have encountered. Anyone outside of *Crop Science* wishing to view the system are also welcome to attend.

IUCN Scientist to Give Sperling Biodiversity Lecture

Jeffrey A. McNeely, Chief Scientist, IUCN, The World Conservation Union, Gland, Switzerland, will present the 2005 Calvin Sperling Biodiversity Memorial Lecture from 7:00–8:05 pm in Ballroom E, Lower Level of the Convention Center.

Dr. McNeely has been at IUCN since 1980 and has been Chief Scientist since 1996, responsible for overseeing all of IUCN's scientific work. At IUCN, he has designed numerous programs and advised governments and conservation organizations on conservation policy and practice.



Jeffrey McNeely

He has published more than 350 technical and popular articles and has authored numerous books on a wide range of conservation issues, seeking to link conservation of natural resources to the maintenance of cultural diversity and to economically sustainable ways of life. He also serves on the editorial advisory board of seven biodiversity-related journals.

Following his training in anthropology at the University of California at Los Angeles, Dr. McNeely worked in Asia for 12 years. He spent two years as a Peace Corps volunteer in southern Thailand, working with villagers to build school water systems. He then worked at the Association for Conservation of Wildlife in Bangkok for five years, where he co-authored *Mammals of Thailand* and designed a system of protected areas for the Lower Mekong Basin of Laos, Cambodia, Thailand, and Vietnam (with FAO/UNDP). He interrupted his work in Thailand between 1972 and 1974 when he conducted research on the relationship between people and nature on the Tibetan border in the Himalayas of eastern Nepal. He was WWF-IUCN Representative in Indonesia from 1977–1980, establishing IUCN's first country program and running some 35 conservation projects in that country.

Drawing on his work in Asia, he co-authored *Soul of the Tiger*, a book about the relationship between people and wildlife. Other books resulting from his work in Asia include: *Wildlife Management in Southeast Asia*; *Bats and Bat Parasites of Thailand*; *Saving Siberut: A Conservation Master Plan*; and *Agriculture in the Lower Mekong Basin*.

As the Director of IUCN's Biodiversity Program, he contributed to all of the major global biodiversity initiatives, including the Convention on Biological Diversity, the Global Biodiversity Strategy, the Global Biodiversity Assessment, Chapter 15 (on biodiversity) of Agenda 21, A Guide to the Convention on Biological Diversity, and National Biodiversity Planning: Guidelines Based on Early Experience from Around the World.

He has advised over 50 governments on their biodiversity strategies and action plans, was a founder of the Global Biodiversity Forum, and has published a book with the Asian Development Bank, *Mobilizing Broader Support for Asia's Biodiversity: How Civil Society Can Contribute to Protected Area Management*.

Some of his other books include: *National Parks, Conservation and Development*; *Guidelines for Tourism Development in Protected Areas*; *People and Protected Areas in the Hindu-Kush Himalaya*; *Culture and Conservation*; *Economics and Biological Diversity*; and *Conserving the World's Biological Diversity*.

The Calvin Sperling Biodiversity Memorial Lecture features a distinguished scholar in the plant biodiversity area or related field. The Lectureship highlights the importance of biodiversity, stimulates scientific discussion, and recognizes outstanding scientists. It is supported through contributions to the Agronomic Science Foundation and is administered by CSSA.

FEATURED EVENTS

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Fellowship Breakfast—6:30–8:00 am, Hilton Hotel, Alpine Ballroom East, Second Floor (p. 31)*

Forage & Grazing Lands Breakfast—6:30–8:00 am, Marriott Downtown, Grand Ballroom Salon D, Lobby Level (p. 171)*

Soil Testing & Plant Analysis Breakfast—6:30–8:00 am, Marriott Downtown, Grand Ballroom Salon AB, Lobby Level (p. 174)*

CSSA Golden Anniversary Symposium—7:55 am–2:30 pm, Marriott Downtown, Grand Ballroom Salon EF, Lobby Level (p. 158)

SASES Breakfast, Awards, Business Meeting, Elections—8:00–11:00 am, Radisson Downtown, Wasatch 1-3, Second Floor (p. 137)

Registration, Membership Renewals, New Membership Processing—8:00 am–5:00 pm, East Lobby, Upper Level (p. 6)

Scheduled Job Interviews—8:00 am–5:00 pm, Ballroom AC, Lower Level (p. 11)

Posters on Display—8:00 am–6:00 pm, Exhibit Hall ABC (p. 11)

Howard Taylor Memorial Lectureship—Root Respiration, Exudation, and Nutrient Uptake: Carbon Costs of Nutrient Acquisition—8:25–11:15 am, Ballroom J, Lower Level (p. 197)

Writing Manuscripts for Publication—8:30–10:30 am, Room 254B, Upper Level (p. 138)

Exhibits Open—9:00 am–6:00 pm, Exhibit Halls ABC (p. 10)

SSSA Luncheon—11:30 am–1:15 pm, Marriott Downtown, Grand Ballroom Salon ABCD, Lobby Level (p. 175)*

C-5 Graduate Student Poster Competition—1:00–3:00 pm, Exhibit Hall ABC, Lower Level (p. 166)

Leo M. Walsh Soil Fertility Distinguished Lectureship—1:55–4:00 pm, Ballroom E, Lower Level (p. 189)

Francis E. Clark Distinguished Lectureship on Frontiers in Biology—2:20–7:00 pm, Ballroom F, Lower Level (p. 187)

CSSA Awards Program—3:00–3:30 pm, Marriott Downtown, Grand Ballroom Salon EF, Lobby Level (p. 159)

Betty Klepper Endowed Lectureship—3:40–4:30 pm, Marriott Downtown, Grand Ballroom Salon EF, Lobby Level (p. 159)

Writing Manuscripts for Publication—7:00–9:00 pm, Room 254B, Upper Level (p. 138)

CSSA Golden Anniversary Dessert Reception—8:00–9:30 pm, Marriott Downtown, Grand Ballroom Salon ABCDE, Lobby Level (p. 160)

Thank You Member Volunteers!

The Societies celebrate and thank all of the 1,700 dedicated members who serve the Societies and our professions through volunteerism to the boards of directors, committees, divisions, branches, editorial boards, and as reviewers. If you have served the Societies in 2005, we invite you to stop by the member services booth, located on the upper level overlooking the exhibit hall, to view our thank you poster and pick up a volunteer ribbon.

Agronomy Christian Fellowship Breakfast

The 20th annual Agronomy Christian Fellowship Breakfast will be held Tuesday from 6:30–8:00 am at the Hilton Salt Lake City Center, Alpine Ballroom East.

The breakfast provides an opportunity for people of faith to meet for worship, inspiration, and fellowship. The speaker will be Lori Abendroth, Research and Extension Associate at the University of Nebraska-Lincoln. The breakfast is open to all members of the Societies, their guests, and interested individuals. A sign-up sheet will be posted on the bulletin board near the registration area (East Lobby, Upper Level of the Convention Center)—please sign up before noon on Monday. Payment will be received at the door.

Nitrogen Cycle, Human Health Symposium

Division S-11 (Soils & Environmental Quality) and the International Union of Soil Science (IUSS) will be sponsoring a symposium titled “The Nitrogen Cycle and Human Health” on Tuesday from 7:55–11:35 am in Ballroom H, Lower Level of the Convention Center.

Losses of nitrogen from agriculture are of concern throughout the world. Although economic loss and environmental impacts are key factors, the main factor driving legislation is the supposed impact on human health of NO₃ in drinking water. Recent medical research calls into question past conclusions on the effects of NO₃ on health. By contrast, other impacts on human health resulting from perturbations to the nitrogen cycle may be underestimated. These include the contribution of N₂O to the thinning of the O₃ layer, resulting in increased exposure to UV radiation; a suggested link between NO₃ and diabetes; and possible indirect health effects through nitrogen enrichment of the environment.

In addition to scientific and practical aspects, the symposium will cover implications for agricultural practice, policy, and regulatory regimes.

Manuscript-Writing Workshops Set for Tuesday

Jump start your professional career and learn about the publishing game through the hands-on workshop, “Writing Manuscripts for Publication,” in Room 254 B, Upper Level of the Convention on Tuesday. There will be two sessions, one from 8:30–10:30 am and another from 7:00–9:00 pm. J. Michael Kelly from Virginia Tech University and Ruth Yanai from State University of New York will lead the workshops.

Graduate students will get started on preparing a manuscript for publication through writing exercises and a review of the sequence of steps in creating a publishable manuscript. M.S. and Ph.D. students that have analyzed, summarized, and reviewed their data will benefit most from this workshop. Space limited to 50 students per session on a first come, first served basis.

CSSA's Golden Anniversary Symposium

The Crop Science Society of America (CSSA) will celebrate 50 years of scientific contributions during its Golden Anniversary symposium from 7:55 am–2:30 pm at the Marriott Downtown, Grand Ballroom Salon EF, Lobby Level. During the symposium, each Division will highlight the most significant scientific events in its history. Following are the scheduled presentations:



- **8:00 am—Improving Lives: 50 Years of Crop Breeding, Genetics, and Cytology**, P. S. Baenziger, Univ. of Nebraska; W. K. Russell, Univ. of Nebraska; G. L. Graef, Univ. of Nebraska; B. T. Campbell, USDA-ARS-Coastal Plains Res. Center
- **8:30 am—Genetic Tools from Nature and the Nature of Genetic Tools**, Ronald Phillips, Univ. of Minnesota
- **9:00 am—Plant Genetic Resources Conservation and Utilization: The Accomplishments and Future of a Societal Insurance Policy**, Paul Gepts, Univ. of California-Davis
- **10:00 am—Unraveling the Mysteries of Crop Development, Growth, and Yield**, Thomas Sinclair, Univ. of Florida
- **10:30 am—A "Top Ten List" of Developments and Issues Impacting Crop Management and Ecology Over the Past 50 Years**, R. Kent Crookston, Brigham Young Univ.
- **11:00 am—Seeds: The Delivery System for Crop Science**, Dennis TeKrony, Univ. of Kentucky
- **1:00 pm—50 Years of Splendor in the Grass**, Robert Shearman, Univ. of Nebraska-Lincoln
- **1:30 pm—Fifty Years of Grassland Science Leading to Change**, C. Jerry Nelson, Univ. of Missouri

The CSSA Awards Program will follow from 3:00–3:30 pm, and there will be a Golden Anniversary Dessert Reception from 8:00–9:30 pm at the Marriott Downtown, Grand Ballroom Salon ABCDE, Lobby Level.

Howard M. Taylor Memorial Lecture Features Australian Researcher

This year's Howard M. Taylor Memorial Lecture on Root-Soil Relationships will be given by Professor Hans Lambers, Head of the School of Plant Biology at the University of Western Australia at Perth, from 8:25–9:30 am in Ballroom J, Lower Level of the Convention Center. The title of his presentation is "Root Respiration, Exudation, and Nutrient Uptake:



Hans Lambers

Carbon Costs of Nutrient Acquisition." The lecture will be followed by a Div. S-6 business meeting from 10:00–11:15 am.

Professor Lambers' lecture is based on over 25 years of research on plant respiration, growth analysis, and mineral nutrition. His research has allowed integration of physiology and biochemistry at whole-plant and vegetation levels. His work on respiration provided new information on the quantitative significance of respiration in the carbon budget of plants as dependent on species and environment. He has offered a clear explanation of why slow-growing plant species typically show relatively fast root respiration rates. His pioneering research on variation in maximum growth rates in plants has elucidated a long-standing controversy in plant ecology, established the principal physiological causes of inherent variation in growth rate, and the significance of why plants from nutrient-poor environments cannot grow fast.

The Howard M. Taylor Memorial Lecture features a distinguished scholar in the field of soil-root relationships and highlights the importance of soil-root relationships, stimulates scientific discussion, and recognizes outstanding scientists. It is supported through contributions to the Agronomic Science Foundation and is administered by SSSA.

FEATURED SYMPOSIA

Symposia are at the Salt Palace Convention Center unless otherwise noted—see corresponding pages in the Program Book for more information.

- Integrated Crop-Livestock Systems for Profit and Sustainability**—Div. A-8, A-5, C-3—7:50–11:30 am, Room 151G, Lower Level (p. 151)
- Revisiting Metal Behavior in Biosolids Amended Soils: Applying Knowledge Gained to an Understanding of Behavior of Metals in Soils Systems: II**—Div. S-2—7:55–10:25 am, Ballroom I, Lower Level (p. 180)
- Soil Biophysics: A Challenging Interface**—Div. S-1, S-3—7:55–11:30 am, Ballroom G, Lower Level (p. 176)
- Nitrogen and Human Health**—Div. S-11, A-5, S-3—7:55–11:35 am, Ballroom H, Lower Level (p. 210)
- Environmental Impact of Strategies to Reduce Dietary Phosphorus**—Div. A-5—7:55–11:45 am, Room 250E, Upper Level (p. 146)
- Problems and Guidelines for Field-based Transgenic Research**—Div. A-7, A-9, C-1, C-3—8:00–9:20 am, Room 250D, Upper Level (p. 150)
- Improving Phosphorus-use Efficiency in Production Agriculture**—Div. A-9—8:00 am–12:10 pm, Room 250F, Upper Level (p. 157)
- Evaporites and Desertification: I**—Div. S-9, S-10—8:10–11:15 am, Room 251D, Upper Level (p. 207)
- Wetlands in Arid Landscapes**—Div. S-10—8:25–10:30 am, Room 251E, Upper Level (p. 209)
- Revisiting Metal Behavior in Biosolids Amended Soils: Applying Knowledge Gained to an Understanding of Behavior of Metals in Soils Systems: III**—Div. S-2—1:30–3:35 pm, Ballroom I, Lower Level (p. 181)
- Evaporites and Desertification: II**—Div. S-9, S-10—4:00–6:00 pm, Exhibit Hall ABC, Lower Level (p. 208)

Walsh Lecture Focuses on Nutrient Management



Keith Goulding

Keith Goulding, Head of the Agriculture and Environment Division at Rothamsted Research and Manager of the UK's new Cross-Institute Programme for Sustainable Soil Function. Professor Goulding's lecture is titled, "Nutrient Management Perspectives from Great Britain," and will be followed by a joint Div. S-4/S-8 business meeting from 3:00–4:00 pm.

Goulding received his B.Sc. in Chemistry and Mathematics at Exeter University, his M.Sc. in Soil Chemistry at the University of Reading, and his Ph.D. in ion exchange in soil at Imperial College, London. His research interests include soil potassium and phosphorus, acid rain, soil acidification, and liming. His current focus is on nutrient cycling in the biosphere, especially losses of nitrogen to air and water and their environmental impact, with a strong emphasis on policy-relevant research. Goulding is a visiting Professor at the University of Nottingham in the UK and China Agricultural University, Beijing. He is a Fellow of the Institute of Professional Soil Scientists and a Chartered Scientist. He was awarded the Royal Agricultural Society of England's Research Medal in 2003 for his research into diffuse pollution from agriculture.

The Leo M. Walsh Soil Fertility Distinguished Lectureship features a distinguished scholar in the field of soil fertility. The Lectureship is supported through contributions to the Agronomic Science Foundation and is administered by SSSA.

The Leo M. Walsh Soil Fertility Distinguished Lectureship will take place on Tuesday from 1:55–2:45 pm and will feature Professor

'Soil Organic Matter Genesis and Transformation' the Topic of the 2005 Francis E. Clark Lecture

Wulf Amelung, Full Professor of Soil Science and Soil Ecology at the University of Bonn, Germany, will give the Francis E. Clark Distinguished Lecture on Frontiers in Biology on Tuesday from 2:30–3:30 pm in Ballroom F of the Convention Center. The title of his presentation is "Genesis and Transformation of Soil Organic Matter—Insights through Biomarker Analyses."

Professor Amelung's primary field is soil organic chemistry and biochemistry, and his research focuses mainly on the dynamics of soil organic matter and on the fate of organic pollutants in terrestrial environment. To understand organic matter cycling at time-scales that exceed the life cycle of soil organisms, he has analyzed specific biomarkers and has combined this work with compound-specific determinations of stable carbon and nitrogen isotopes. In 2003, his research on soil organic nitrogen was awarded with the Fritz-Scheffer prize of the German Soil Science Society. To detect organic pollutants and their degradation products, he has used mass-spectrometry (GC/LC-MS-MS) and radioscintillation counting. The objective of these studies is to elucidate the environmental dispersion and bioavailability of pesticides and, more recently, antibiotics in soil.

Wulf Amelung has authored or co-authored 72 articles in refereed scientific journals and eight book articles. He is an active member of SSSA, ASA, and the German Soil Science Society.

The Francis and Evelyn Clark Soil Biology Lectureship on Frontiers in Biology features a distinguished scholar in the field of soil biology or a closely related area. The individual selected presents a lecture, as part of the Division S-3 program, at the SSSA Annual Meeting. The Lectureship focuses on topics in soil biology that are of interest to teachers, researchers, and students. The Lectureship emphasizes new frontiers in all aspects of soil biology and the importance of soil biology in addressing agricultural, environmental, and socioeconomic issues. Funds for the Lectureship are provided through contributions to the Agronomic Science Foundation, and the program is administered by SSSA.



Wulf Amelung

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David Robinson to Receive S-1 Early Career Award

David Robinson will receive the 2005 S-1 Early Career Award at the S-1 Business Meeting on Tuesday from 3:00 to 4:00 pm in Ballroom G, Lower Level of the Convention Center.



David Robinson

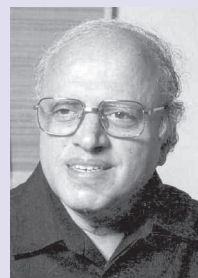
He is the fourth recipient of this annual award, which recognizes scientists who have made an outstanding contribution in Soil Physics within six years of completing their Ph.D. degree.

Dr. Robinson received his B.S. degree in Soils and the Environment at Reading University, UK in 1994 and his Ph.D. in Soil Hydrology from the University of Ulster, UK in 1999. His dissertation research focused on comparing time domain reflectometry, capacitance and impedance sensors for soil water content determination, and the application of automated soil water sensing equipment to field studies under irrigated potato crops.

After his Ph.D. study, Robinson worked two years as a postdoctoral researcher at the Volcani Center in Israel investigating theoretical and experimental aspects of dielectric and electrical conductivity measurements for the simultaneous determination of soil water content and salinity. He then spent two years as a research associate at the USDA Salinity Laboratory in Riverside, CA, developing mobile soil mapping techniques for precision agriculture. During the last two years, Robinson has conducted groundbreaking research on electromagnetic sensors for application in and characterization of porous media at Utah State University. In October, Robinson took a staff scientist position in the Department of Geophysics at Stanford University to help develop the concept for integrating geophysical sensing and hydrology under the NSF Consortium of Universities for the Advancement of Hydrological Sciences, Inc. (CUASHI).

M.S. Swaminathan Presents “Achieving an Ever-Green Revolution” at Klepper Lecture

The “architect of India’s Green Revolution,” M.S. Swaminathan, will give the Betty Klepper Endowed Lecture on Tuesday from 3:40–4:15 pm at the Marriott Downtown, Grand Ballroom Salon EF, Lobby Level. The title of his presentation is “Achieving an Ever-Green Revolution.”



M.S. Swaminathan

A plant geneticist by training, Dr. Swaminathan serves as Chairman of both the Swaminathan Research Foundation and the National Commission on Farmers for the Indian government and is President of the Pugwash Conferences on Science and World Affairs. His contributions to the agricultural renaissance of India have led to his being widely referred to as the scientific leader of the green revolution movement. His advocacy of sustainable agriculture has made him an acknowledged world leader in the field of sustainable food security. Dr. Swaminathan has been acclaimed by TIME magazine as one of the 20 most influential Asians of the 20th century and one of the only three from India, the other two being Mahatma Gandhi and Rabindranath Tagore. He has been described by the United Nations Environment Programme as “the Father of Economic Ecology” and by Javier Perez de Cuellar, Secretary General of the United Nations, as “a living legend who will go into the annals of history as a world scientist of rare distinction.”

Dr. Swaminathan was the first World Food Prize recipient in 1987 for his introduction of high-yielding wheat and rice varieties to Indian farmers. The International Association of Women and Development conferred on him the first international award for significant contributions to promoting the knowledge, skill, and technological empowerment of women in agriculture and for his pioneering role in mainstreaming gender considerations in agriculture and rural development. Swaminathan also received the Ramon Magsaysay Award for Community Leadership in 1971 and the Albert Einstein World Science Award in 1986.

Swaminathan served as Chairman of the UN Science Advisory Committee set up in 1980 to take follow-up action on the Vienna Plan of Action. He has also served as Independent Chairman of the FAO Council, and President of the International Union for the Conservation of Nature and Natural Resources. Swaminathan is a Fellow of many of the leading scientific academies of India and the world, including the Royal Society of London and the U.S. National Academy of Sciences. He has received 47 honorary doctorate degrees from universities around the world and currently holds the UNESCO Chair in Ecotechnology at the M.S. Swaminathan Research Foundation in Chennai (Madras), India and is Chairman of the National Commission on Agriculture, Food and Nutrition Security of India.

The 2005 Klepper Lecture is part of a series of events and programs celebrating the 50th Anniversary of CSSA. It follows CSSA’s Golden Anniversary Symposium—where each division will feature an invited speaker who will reflect on the most significant achievements of the division over its lifetime, as well as provide thoughts on challenges and opportunities facing the division in the next 50 years—and an awards ceremony. Following the Klepper Lecture will be the Golden Anniversary Dessert Reception from 8:00–9:30 pm at the Marriott Downtown, Grand Ballroom Salon ABCDE, Lobby Level.

The Betty Klepper Endowed Lectureship features a distinguished scholar in crop science. Funds for the Lectureship were provided by a gift from Elizabeth L. Klepper to the Agronomic Science Foundation, and the program is administered by CSSA.

FEATURED EVENTS

Events are at the Salt Palace Convention Center unless otherwise noted—see corresponding pages in the Program Book for more information. Events are free and open to all attendees, except those marked with an asterisk (*), which require tickets, available for purchase at the Registration Center in the East Lobby, Upper Level.

Extension Agronomists Breakfast—6:30–8:00 am, Marriott Downtown, Grand Ballroom Salon D, Lobby Level (p. 222)*

A-7 Agronomy Tour—6:45 am–5:30 pm, South Lobby, Lower Level (p. 16)*

Teaching and Learning Roundtable—7:55–10:20 am, Hilton Hotel, Alpine Ballroom, Second Floor (p. 249)

Registration, Membership Renewals, New Membership Processing—8:00 am–5:00 pm, East Lobby, Upper Level (p. 6)

Scheduled Job Interviews—8:00 am–5:00 pm, Ballroom AC, Lower Level (p. 11)

Posters on Display—8:00 am–6:00 pm, Exhibit Hall ABC (p. 11)

Exhibits Open—9:00 am–6:00 pm, Exhibit Halls ABC (p. 10)

ASA Awards Luncheon—11:30 am–1:15 pm, Marriott Downtown, Grand Ballroom Salon ABCD, Lobby Level (p. 218)*

How to Conduct a Successful First Year Research Program—2:45–4:05 pm, Room 251F, Upper Level (p. 219)

Finding the Right Funding Opportunity—4:30–6:30 pm, Room 251F, Upper Level (p. 219)

Early Career Member Social—6:30–8:30 pm, Room 251F, Upper Level (p. 220)

Morning Symposium to Cover Agricultural Management of Greenhouse Gases

The sixth annual joint symposium between SSSA and the Soil and Water Conservation Society (SWCS), titled “Agricultural Management of Greenhouse Gas Emissions,” will take place on Wednesday from 8:10–11:15 am at the Marriott Downtown, Grand Ballroom Salon F, Lobby Level. The symposium will focus on the practical aspects of reduction of greenhouse gasses and carbon sequestration including farm-level methods and economic feasibility and benefits. It will include invited researchers working on greenhouse gases and carbon sequestration from GRACenet (the Greenhouse Gas Reduction through Agricultural Carbon Enhancement Network), CASMGs (Consortium for Agricultural Soil Mitigation of Greenhouse Gases), and other related groups. The following topics will be discussed:

- Greenhouse Gas Emissions and Carbon Sequestration
- Managing for Mitigation of Greenhouse Gases, and Carbon Sequestration in the Midwest
- Managing Greenhouse Gas Emissions in Semi-arid Agroecosystems
- USDA Activities Affecting the Feasibility of Managing Greenhouse Gases and Carbon Sequestration
- The Importance of Science in Carbon Credit Trading

Stripe Rust of Wheat: A Plan for Recovery

Stripe rust is one of the most significant threats to worldwide wheat production. The U.S. Department of Homeland Security has proposed a National Plant Disease Recovery System using genetic resistance, genetic resources, and the Cooperative Extension Service to reduce and eliminate disease threats to important crops.

A symposium sponsored by Division C-1 (Crop Breeding, Genetics & Cytology) titled “Stripe Rust of Wheat: A Plan for Recovery,” will take place on Wednesday from 12:55–3:30 pm in Ballroom D, Lower Level of the Convention Center. It will include national and international invited speakers who will discuss the cloning of disease resistance genes, global changes in the pathogen population, use and deployment of genetic disease resistance, and prospects for control.

C-6 Symposium Takes You ‘Beyond the Plant’

The symposium, “Beyond the Plant: Biodiversity Impacts on the Grazing Animal,” sponsored by Div. C-6, will be held on Wednesday from 12:55–4:30 pm in Room 150ABC, Lower Level of the Convention Center. Speakers include Fred Provenza and John Haskell from Utah State University, David Chapman from the University of Melbourne, and Kathy Soder from the USDA-ARS Pasture Systems and Watershed Management Research Unit in University Park, PA. They will discuss the impact on the grazing animal of biochemical, architectural, spatial, and temporal variation in pasture systems.

Inaugural Biometry Working Group Meeting

The inaugural meeting of the CSSA Biometry Working Group will be held on Wednesday from 1:00–4:00 pm in Room 251B of the Salt Palace Convention Center. It will be chaired by Don Bullock (University of Illinois) and Ken Moore (Iowa State University). The intent of the Biometry Working Group is to provide a forum for all persons interested in statistics and experimental design from the research and/or teaching points of view. This meeting will be used to discuss the role of the CSSA Biometry Working Group in the Societies, interests of the membership, and the potential for an eventual CSSA division. Everyone is welcome to attend.

Learn How to Conduct a Successful First Year Research Program

Early career professionals will have the opportunity to learn how to conduct a successful first year research program on Wednesday from 2:45–4:05 pm in Room 251F, Upper Level of the Convention Center. This new program will address how to establish effective research collaborations, obtain competitive grant funding, and support new faculty with start-up packages. There will be plenty of time for discussion and questions.



Early Career Members

Learn about Grant Funding, How to Get Involved in the Societies

Do you have questions about serving on a Society committee, volunteering to be a reviewer for our journals, developing better ties between academia and industry, writing effective grant proposals, finding the right funding agency, or developing 'interdisciplinary' teams for attacking research? Do you have an idea of how the Societies could better meet your needs as an early career member? If so, we want to know. Our Societies can only function as well as the input they receive, and as we see it, we, as early career members, should be a driving force in determining their future direction.

This year, we are very excited about our early career member programming. Our two programs are planned for Wednesday from 4:30–8:30 pm in room 251F, Upper Level of the Convention Center.

4:30–6:30 pm—Finding the Right Funding Opportunity

The Early Career Member Committee and Karl Glasener (Director of Science Policy) have put together an exciting program. If you feel like your knowledge level about the grant process is inadequate, **YOU ARE NOT ALONE**. The fact is that many of us do not have a lot of experience in the grant process, although it is becoming a larger and more important part of our careers. Come to this session to learn how grant-funding agencies operate, what is expected from a successful proposal, and about specific grant opportunities from potential U.S. government funding agencies such as NSF, DOE, and USDA. This session is not intended to be a grantsmanship workshop,



Karl Glasener

but a forum for you and funding agency "decision makers" (i.e., program managers) to talk about specific programs and opportunities available in your discipline or area of work. Food and drink will be provided.

6:30–8:30 pm—Early Career Member Social

Come meet fellow early career members, learn about how to get involved in the early career membership and the Societies, and learn how the Societies can better address the concerns and interests of its newest members. Based on the experience from last year, the social event creates a relaxing and welcoming environment where these three goals can be accomplished. Food and drink will be provided along with information about the Societies and opportunities for involvement.



The Early Career Member Social provides an opportunity to meet fellow early career members and learn about how to get involved in the Societies.

FEATURED SYMPOSIA

Symposia are at the Salt Palace Convention Center unless otherwise noted—see corresponding pages in the Program Book for more information.

Humic Substances as Environmental Sorbents: II—Div. S-2—7:55–11:30 am, Ballroom I, Lower Level (p. 268)

New Horizons from Long-Term Soil Experiments: Interdisciplinary Opportunities to Examine Soil Change—Div. S-7—7:55 am–12:20 pm, Ballroom J, Lower Level (p. 288)

Molecular Based Approaches to Soil Microbiology—Div. S-3—7:55 am–4:10 pm, Ballroom H, Lower Level (p. 273)

SNP Markers Symposium—Discovery, Development, Mapping, Utilization—Div. C-7, C-1—8:00–11:50 am, Room 253AB, Upper Level (p. 256)

Denitrification in the Riparian-Stream Continuum: I—Div. S-1, S-3—8:25 am–11:15 am, Room 251E, Upper Level (p. 296)

Application Dependent Challenges for Plant Genetic Resources—Div. C-8—8:25–11:45 am, Room 151ABC, Lower Level (p. 258)

What's New in the Turfgrass Industry?—Div. C-5—8:55 am–12:00 pm, Hilton Hotel, Grand Ballroom AB, Second Floor (p. 249)

Use of Stable Isotopes in Agriculture and Plant Research—Div. A-3—9:55–2:35 pm, Ballroom B, Lower Level (p. 221)

Stripe Rust of Wheat: A Plan for Recovery—Div. C-1, C-7, C-8—12:55–3:30 pm, Ballroom D, Lower Level (p. 233)

Beyond the Plant: Biodiversity Impacts on the Grazing Animal—Div. C-6—12:55–4:30 pm, Room 150ABC, Lower Level (p. 253)

Organic Seed Production and Breeding for Organic Production Systems—Div. C-4, C-1—1:10–4:45 pm, Room 251C, Upper Level (p. 247)

Uses and Abuses of Soil and Water Resources: Historical and Contemporary Examples and the Lessons to be Learned from Them—Div. S-6—1:10–4:45 pm, Room 151G, Lower Level (p. 284)

Turfgrasses as Invasive Species—Div. C-5—1:25–4:30 pm, Hilton Hotel, Grand Ballroom AB, Second Floor (p. 252)

Humic Substances as Environmental Sorbents: III—Div. S-2—1:25–5:00 pm, Ballroom I, Lower Level (p. 270)

FEATURED EVENTS

Events are at the Salt Palace Convention Center unless otherwise noted—see corresponding pages in the Program Book for more information. Events are free and open to all attendees.

Open Job Interviews—8:00–11 am, Ballroom AC, Lower Level (p. 11)

Registration, Membership Renewals, New Membership Processing—8:00 am–12:00 pm, East Lobby, Upper Level (p. 6)

FEATURED SYMPOSIA

Symposia are at the Salt Palace Convention Center unless otherwise noted—see corresponding pages in the Program Book for more information.

Carbon Dynamics—Div. S-7—7:55–10:15 am, Ballroom J, Lower Level (p. 322)

Water Quality/Transport Modeling—Div. S-1—7:55–11:15 am, Room 150G, Lower Level (p. 315)

Breeding, Environment and Establishment—Div. C-5—7:25–11:20 am, Ballroom D, Lower Level (p. 312)

Management of Miscellaneous Crops—Div. C-3—7:55–10:15 am, Room 251B, Upper Level (p. 310)

Atmospheric Emissions from Agricultural Systems—Div. A-5—7:55–10:55 am, Room 251C, Upper Level (p. 306)

Management Technologies for Sustainable Crop Production—Div. A-6—7:55–10:45 am, Room 150ABC, Lower Level (p. 307)

Remediation of Soils Contaminated with Metals or Organic Chemicals—Div. S-11—8:10–11:15 am, Room 251D, Upper Level (p. 325)

Horticultural Crops—Div. S-4—8:25–9:30 am, Convention Center, Room 250DE, Upper Level (p. 318)

Soil and Plant Analysis—Div. S-8—8:25–9:45 am, Room 250F, Upper Level (p. 323)

Wetland Restoration and Soil/Sediment Processes—Div. S-10—8:25–10:00 am, Room 150D, Lower Level (p. 324)

Nitrogen Utilization and Loss in Agricultural Systems—Div. A-8—8:25–11:00 am, Room 250C, Upper Level (p. 308)

Soil Biology and Soil Function—Div. S-3—8:25–10:15 am, Ballroom H, Lower Level (p. 317)

Assessment of Management Impacts on Soil Properties—Div. S-6—8:25–10:30 am, Room 251E, Upper Level (p. 320)

Forages and Grazing Systems—Div. C-6—8:25–10:30 am, Room 251A, Upper Level (p. 314)

Irrigation Management—Div. S-6—8:25–11:00 am, Room 251F, Upper Level (p. 321)

Surface Chemistry of Group 3A, 5A, and 7A Oxyanions—Div. S-2—8:25–11:25 am, Ballroom I, Lower Level (p. 316)

Turf Physiology, Stress, and Soil Modification—Div. C-5—8:25 am–12:00 pm, Ballroom B, Lower Level (p. 313)

Pedological Investigations—Div. S-5—8:55–11:00 am, Ballroom G, Lower Level (p. 319)

Breeding and Germplasm Evaluation—Div. C-1—9:10–10:15 am, Ballroom E, Lower Level (p. 309)

Systems and Other Topics—Div. S-4—9:55 am–12:00 pm, Room 250DE, Upper Level (p. 319)

Small Grain Management and Quality: II—Div. C-3—10:25 am–12:00 pm, Room 251B, Upper Level (p. 311)

CSSA Announces Renewal of Pioneer Fellowship in Plant Sciences

Crop Science Society of America (CSSA) President James Coors announced that Pioneer Hi-Bred International, Inc. has again funded the Pioneer Fellowship in Plant Sciences through the Agronomic Science Foundation (ASF). The Pioneer Fellowship in Plant Sciences has been created to attract top students whose careers will continue to advance the science of plant improvement. The Fellowship will support up to four years of graduate study with a \$25,000 annual stipend.



Jim Coors

“Pioneer is committed to supporting education in plant sciences,” says Dr. Todd Krone, Pioneer research coordinator. “The Pioneer Fellowship in Plant Sciences will help graduate students achieve their educational goals and create the researchers and teachers of the future.”

The first Pioneer Fellowship in Plant Sciences was awarded in 2003 to David Bowen, a Ph.D. applicant with outstanding potential in plant sciences who is currently enrolled in his last semester at the University of Idaho. He has presented his research on low phytic acid crops in a number of venues, including the ASA annual meetings, the Western Society of Crop Science annual meetings, and at grower field days.

Dr. David A. Sleper of the University of Missouri will continue as Chairman of the Pioneer Fellowship in Plant Sciences Committee for CSSA.

Applicant information will be in the CSSA Awards Booklet, which is mailed to university departments and posted on CSSA’s website (www.crops.org) in late December.

BEFORE YOU LEAVE:

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Orange, CA 92865

Phone: 714-974-5560

Fax: 714-921-2531

www.gasanalyzers.com

Booth 227

California Analytical Instruments, Inc. provides agricultural air quality monitors for ammonia, methane, nitrous oxide, carbon monoxide and carbon dioxide.

REPRESENTATIVE: Larry Sullivan Hal Peper

Campbell Scientific, Inc.

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Logan, UT 84321-1784

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Fax: 435-750-9540

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Booth 401

Campbell Scientific, Inc. manufactures data acquisition instrumentation for agronomic, crop and soil science. Measurements include environmental, water quality, soil moisture, and flow parameters. Control of irrigation and closed environments are also common. We continue to design new products, and upgrade existing products to meet customers' needs. Our instrumentation is known for its flexibility, low power requirements, precise measurements, and dependability in harsh, remote environments. New products include: CR1000 Datalogger, Sentek TriSCAN Soil Salinity Probes, improved spread spectrum radios, and a software developer's kit (SDK) for our TDR100 Reflectometer. We invite you to visit our exhibit and discuss your research applications. Our products are backed by over 30 years of environmental measurement experience and an unwavering commitment to customer service.

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Jim Bilskie Joel Greene
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Fax: 765-563-3850

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Booth 109

Carter is in its 40th year of manufacturing specialty equipment for Agricultural Research. Many equipment designs have come and gone during those 40 years. Please stop by just to visit or to discuss the equipment you need. One of a kind requests are welcome.

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Ben Carter

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Booth 212

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REPRESENTATIVE: Robert Stalker Will Bowe

CETAC Technologies

14306 Industrial Road

Omaha, NE 68144

Phone: 402-733-2829

Fax: 402-733-5292

www.cetac.com

Booth 325

CETAC Technologies develops, manufactures, and markets a full line of products and services that cater to the needs of the soil laboratories. These products and services provide a comprehensive range of solutions for AA, ICP and ICP-MS elemental analysis. Products include autosamplers, nebulizers, mercury analyzers, and laser ablation.

REPRESENTATIVE: Ronald Mickens

CID, Inc.

4845 NW Camas Meadows Dr.

Camas, WA 98607

Phone: 360-833-8835

Fax: 360-833-1914

www.cid-inc.com

Booth 323

CID, Inc. designs and manufactures high technology research instruments. We strive to provide an elegant solution to the needs of our customers. This is accomplished by emphasizing feedback and input from scientists all over the world. We conduct business around the world through a group of over 30 representatives and an international sales department that handles communications and relations with our representatives and clients to ensure that they are well provided for. We will demonstrate our Photosynthesis Systems, Leaf Area Meters, Plant Canopy Imager, Computer Image Analysis System, Soil Profile and Root Growth Monitoring System and Spectrometers.

REPRESENTATIVE: Shan Chen Jennifer Lynn
Ying Yan

Conviron

2741 Miller Lane

Hendersonville, NC 28791-1363

Phone: 828-693-6227

Fax: 828-693-4799

www.conviron.com

Booth 103

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.

REPRESENTATIVE: Graham Wilson Joe Hildebrand

Council for Agricultural Science and Technology (CAST)

4420 W. Lincoln Way
Ames, IA 50014-3447
Phone: 515-292-2125 ext. 32
Fax: 515-292-4512

www.cast-science.org

Booth 119

CAST Mission Statement: CAST assembles, interprets, and communicates credible, science-based information regionally, nationally, and internationally to legislators, regulators, policy-makers, the media, the private sector, and the public. CAST is a nonprofit organization composed of scientific societies and many individual, student, company, nonprofit, and associate society members. CAST's Board of Directors is composed of representatives of the scientific societies and individual members, and an Executive committee. CAST was established in 1972 as a result of a 1970 meeting sponsored by the National Academy of Sciences, National Research Council.

REPRESENTATIVE: John M. Bonner

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Booth 317

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Booth 220

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Decagon Devices, Inc.

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Pullman, WA 99163
Phone: 509-332-2756
Fax: 509-332-5158

www.decagon.com

Booth 102

Decagon Devices has manufactured quality instrumentation for plant and soil researchers for over 20 years. Our products include the ECH2O probe for soil moisture monitoring, the WP4 water

potential meter, and the LP-80 Ceptometer for PAR and LAI measurement. Come by our booth and see our newly re-designed mini-disk infiltrometer for measuring soil hydraulic conductivity and our new steady-state porometer for measuring stomatal conductance.

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Todd Martin T-Jay Clevenger
Matt Galloway Tamsin Campbell
Colin S. Cambell Gaylon S. Campbell
Kirby Dailey Pat Gosselin

Delta-T Devices

128 Low Road, Burwell
Cambridgeshire, UK CB5 0EJ
Phone 00 44 1638 742922
00 44 1638 743155

www.dleta-t.co.uk

Booth 411

Delta-T will be exhibiting two new, high performance, low cost research tools: the SM200 Soil Moisture Probe and the GP1 Data Logger/Irrigation Monitor. We will also be showing the improved PR2 Profile Probe, and the WET Sensor (for monitoring pore water conductivity). In addition, Delta-T offers automatic weather stations, environmental data loggers and solar radiation sensors. For plant science we supply image analysis equipment aimed at plant disease studies, high speed leaf area measurement (using a conveyor belt) and root length quantification. Other Delta-T products quantify plant canopy parameters such as leaf area index and measure stomatal conductance.

REPRESENTATIVE: Lea Dodds Dick Jenkins
Gary Lock

Dynamax Inc.

10808 Fallstone #350
Houston, TX 77099
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Fax: 281-564-5200

www.dynamax.com

Booth 407, 409

Dynamax, Inc. provides key measurements for plant water relations, and carbon - water flux. As the exclusive distributor for ADC Bioscientific and Delta-T Devices, we have coordinated three exhibits side by side to offer the widest array of soil, crop, and environmental measurement available. Dynamax is the world-leading producer of sap flow instrumentation and sensors, and introduces new Probe12 sap flow system. We will demonstrate crop hydraulic conductance measurements with an ultra-portable HPFM and a new soil respiration chamber for automatic CO₂ Flux.

REPRESENTATIVE: Michael McClung Roy Newman

Ecological Chambers ENCONAIR

477 Jarvis Ave.
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Booth 207, 209

ENCONAIR will display one of its popular "Bigfoot" Plant Growth Chambers specially enhanced for agronomy applications. Please stop by our display to pick up the latest information.

REPRESENTATIVE: Bill Porter Patti Porter
Marc Theroux

Elementar Americas

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Fax: 856-787-0055

www.chnos.com

Booth 329

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.

REPRESENTATIVE: Scott Hughes Rudolf Haas
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Environmental Growth Chambers

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Phone: 800-321-6854
Fax: 440-247-8710

www.egc.com

Booth 225

Environmental Growth Chambers (EGC) has over fifty years experience in the design and manufacture of controlled environment chambers. EGC has the largest selection of plant growth chambers for agriculture research of any company worldwide. We also produce tissue culture chambers; walk-in controlled environment rooms, lighted and refrigerated incubators, day-lit chambers, root zone cabinets, microprocessor, and central computer systems for control and monitoring. Please stop by to discuss your upcoming projects.

REPRESENTATIVE: Brian Cook

ESRI

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REPRESENTATIVE: Chris Boatman

EST Analytical

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Fairfield, OH 45014
Phone: 513-642-0100
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Booth 121

Since 1990, EST has supplied analytical laboratories throughout the U.S. with advanced analytical instrumentation solutions. EST has grown dramatically over the past several years by creating a culture of commitment to our customer's success. Our innovative approaches to improving laboratory throughput and profitability within the environmental laboratory are the results of this commitment and have become standards in the industry. We appreciate your interest in our products and we hope to have an opportunity to serve you. It is our goal to provide you with the best product solution for your needs. We want to earn your business and keep you coming back for years to come.

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Jake Mohrlang

High-Purity Standards

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Booth 421

High-Purity Standards manufactures single and multielement standards of extremely high purity for the calibration of analytical instruments such as the AAS, ICP, ICP-MS, Ion Chromatography and CNS elemental analysis. HPS welcomes requests for custom made mixtures from nanogram to milligram concentrations. We would be pleased to quote you a price for a standard that meets your laboratory needs. Certified Reference Materials such as drinking water, waste water, sea water, soils, sludges, biological products, foods, and air filters are available for quality control and method development.

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Hoffman Manufacturing, Inc.

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Booth 309

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Holland Scientific

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REPRESENTATIVE: Kyle Holland Carla Holland

IntelliTech Microsystems, Inc.

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Radnor, PA 19087
Phone: 610-225-2604
Fax: 610-225-3781

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Booth 226

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Booth 210

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REPRESENTATIVE: David Martin Stella Martin

The Noble Foundation

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www.noble.org

Booth 417

The Plant Biology Division's mission blends one of humanity's age-old needs—plant productivity—with cutting-edge basic science. Its research programs focus on plant-microbe interactions, plant natural products and cellular/developmental biology,

using the latest techniques in genomics, genetics, molecular biology, biochemistry and microscopy. The Forage Improvement Division has four main program areas: breeding and genetics of grasses such as tall fescue and tall wheatgrass; breeding and genetics of legumes such as alfalfa and white clover; application of molecular markers/genomics to identify useful genes; and tissue culture/transformation technologies to incorporate value-added traits. The overall group is driven by the needs of the breeding programs.

REPRESENTATIVE: Jane Nance Gayle Donica

PP Systems

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www.ppsystems.com

Booth 418

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REPRESENTATIVE: Mike Doyle Jeff Browinski
Tim Doyle

Plant Management Network

3340 Pilot Knob Road
St. Paul, MN 55121
Phone: 651-994-3860
Fax: 651-454-0766

www.plantmanagementnetwork.org

Booth 320

The PLANT MANAGEMENT NETWORK (PMN) is a not-for-profit, online resource of applied agricultural information. PMN publishes four applied science journals—*Applied Turfgrass Science*, *Crop Management*, *Forage and Grazinglands*, and *Plant Health Progress*—and includes an image database, three field trials publications, a plant science database of more than 4,000 fact sheets and other web-based resources, a soybean rust information center, and a monthly newsletter. PMN also offers continuing education units to Certified Crop Advisers through its education and training center. Information available through PMN is supplied only by qualified authors and PMN's partner organizations. Learn more about PMN and the PMN Partners Program at our booth.

REPRESENTATIVE: Miles Wimer Brian Simdars
Joan Quam

Potash & Phosphate Institute (PPI)

655 Engineering Drive, Suite 110
Norcross, GA 30092
Phone: 770-825-8080
Fax: 770-448-0439

www.ppi-ppic.org

Booth 311

The exhibit will highlight the agronomic research and education programs of the Potash & Phosphate Institute and the Foundation for Agronomic Research (FAR). *Better Crops with Plant Food magazine*, the PPI Catalog of educational material, and other publications will be distributed free of charge. The web-

sites www.ppi-ppic.org, www.ppi-far.org, and www.FARmresearch.com will also be featured. PPI scientific staff from various regions will be present at the exhibit on a rotating schedule.

REPRESENTATIVE: Terry Roberts Paul Fixen
Don Armstrong

Qubit Systems

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REPRESENTATIVE: Steve Hunt Jason Curtis

Regent Instruments, Inc.

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Sainte-Foy, QC, CANADA, G1V 1V4
Tel: 418-653-1347
Fax: 418-653-1357

www.regentinstruments.com **Booth 107**

Regent Instruments Inc. develops and markets image analysis systems for simple to complex precise morphological analysis of plant leaves, seeds, needles and roots. These systems perform also color analysis and can quantify insect and disease damage. We also develop systems specialized for wood cell anatomy, tree-ring and forest canopy analysis. Our products are exported in more than 60 countries worldwide. Since its establishment in 1991, Regent Instruments has been committed to delivering products of high performance and technological advance. Get more information by visiting our booth and our web site.
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Seed Research Equipment Solutions

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Seed Research Equipment Solutions LLC (SRES) builds, designs, and modifies agriculture seed research equipment. Our primary product line is the SRES/Monsosem precision vacuum planter setup for research test plots. We build research planters, configured to customer specifications, in both mounted and pull type models. These planters are driven by the Big John hydraulic system with a HammerHead Computer display for the viewing and recording of planted plot data. We will be displaying a SRES/Monsosem precision vacuum planter.
REPRESENTATIVE: Carrol C. Langenhorst Stacy Unruh
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Soil Measurement Systems

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REPRESENTATIVE: Annemarie Wierenga Mark Wierenga
Amber Wieranga

SoilMoisture Equipment Corp.

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Soilmoisture is the international leader in manufacturing equipment for extracting and measuring water in soils and plants. Our distinctive porous ceramic technology is used in a variety of products for field/laboratory applications: tensiometers, pressure plate extractors, and lysimeters. We carry Eijkelkamp equipment, and now the new ICT Smart Logger. A new generation of monitoring solutions for agriculture/environment. The new Smart Logger/Smart Sensor system is an advanced electronics package, powered by a sophisticated microprocessor in every sensor. No complicated hard wiring or custom programming. Your time is dedicated to quickly and confidently collecting data for research or real time decision making.

REPRESENTATIVE: Megan Cullen Whitney Skaling
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SST Development Group

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Booth 319

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REPRESENTATIVE: Curt Woolfolk

Swift Machine

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Phone: 306-773-2222
Fax: 306-773-2215

www.swiftmachine.com

Booth 123

Swift Machine manufactures Forage Plot Harvesters (Ride-On and Walk- Behind), Swathers and now we are manufacturing a new Seeder. We are able to customize our equipment to meet specific requirements.

REPRESENTATIVE: Evelyn Dyck Ken Dyck
Dave Fehn

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Booth 322

Nutrient analysis made easy! A new generation of laboratory analyzer for ion analysis, the EasyChem utilizes the most advanced discrete technology available for environmental applications. EasyChem has been specifically designed with respects to USEPA methods, dynamic ranges, MDLs, PQLs, and a wide variety of sample matrices. EasyChem offers flexibility to perform multiple parameters on selected samples with no operator intervention with easy to use Windows based software. EasyChem has low operation costs with minimal reagent usage and waste generation. Major time and labor saving advantages over segmented flow and flow injection analysis. Sample preparation (i.e., block digesters) and microbiology equipment.

REPRESENTATIVE: Craig Chinchilla

US Borax, Inc.

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Forrest City, AR 72336
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Fax: 870-630-0896

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Booth 430

REPRESENTATIVE: Jim Woodruff Phil Petersen
Larry Jayroe

USDA-NRCS

100 Centennial Mall N. Rm. 152
Lincoln, NE 68510
Phone: 402-437-4148
Fax: 402-437-5336

<http://soils.usda.gov>

Booth 229

The exhibit introduces the new Web Soil Survey. The Web Soil Survey allows users to select a geographic area of interest and to view soil maps, reports, soil interpretations, and suitability. Information can be viewed online, downloaded to a local computer, or sent directly to a printer. Information is available on more than 90 percent of the country's private lands.

REPRESENTATIVE: Gary Muckel Jim Fortner
Joyce Scheyer

USDA-NRCS Plant Materials Program

Building 509, BARC-EAST
Beltsville, MD 20705
Phone: 301-504-8175
Fax: 301-504-8741

<http://Plant-Materials.nrcs.usda.gov>

Booth 228

The USDA Natural Resources Conservation Service Plant Materials Program focuses on using plants as a natural way to address today's natural resource challenges. Through a nationwide network of Plant Materials Centers and Specialists, the Plant Materials Program selects conservation plants and develops innovative planting technology. The Program cooperates with a variety of public, private and Tribal partners; provides new technology for national conservation initiatives such as the Farm Bill; and works one-on-one with public and private landowners to solve critical land management challenges like drought, wild-fire restoration and invasive species.

REPRESENTATIVE: Scott Edwards Paul Salon
Mike Hubbs

Vaisala, Inc.

10-D Gill Street
Woburn, MA 01801
Phone: 781-933-4500
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www.vaisala.com

Booth 211

Vaisala, a leader in environmental measurement, develops, manufactures and markets state-of-the-art carbon dioxide, relative humidity, dewpoint, barometric pressure transmitters, sensors, and hand-held meters for ecological, industrial process, HVAC, and OEM applications. Vaisala's CARBOCAP® carbon dioxide transmitters, meters and probes provide excellent accuracy and reliability in measuring CO₂ in applications such as soil respiration, ambient CO₂ monitoring, and plant growth chambers. The body of the GMP343 probe is IP67-classified, weighs less than one pound, and consumes less than one watt of power. The diffusion-aspirated design eliminates the need for sampling systems and measurement errors caused by pressure differences.

REPRESENTATIVE: Penny Legrow Bruce McDuffee

Veris Technologies

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Salina, KS 67401
Phone: 785-825-1978
Fax: 785-825-6983

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Booth 105

Veris Technologies produces in situ soil sensors and controls for precision agriculture. Current commercially available systems

measure soil pH and soil electrical conductivity on-the-go. Under development is a system to rapidly collect field near-infrared spectroscopy measurements.

REPRESENTATIVE: Eric Lund Colin Christy

Wescor

The Environmental Products Division
459 South Main
Logan, UT 84321
Phone: 435-752-6011
Fax: 435-753-6756

www.wescor-epd.com

Booth 126

Wescor Environmental Products Division is dedicated to the progress of science by providing high-quality environmental instrumentation to the science community. The Environmental Products division is the leader in water potential determination of soils, water, and plant material. We also manufacture general-purpose datalogger and environmental sensor products. Come visit the Wescor booth to see our newest instruments: the eight-channel water potential logger, PSYPRO, and our remote radio two-channel logger, DPX2-R.

REPRESENTATIVE: Kathi Abel Dennis Briscoe
Wayne Barlow

Western Ag Innovations

#3-411 Downey Road
Saskatoon, SK S7N 0R4 CANADA
Phone: 306-978-1777
Fax: 306-978-4140

www.westernag.com

Booth 125

Western Ag Innovations markets the use of Plant Root Simulator (PRS)TM-probes. The PRSTM-probe consists of either cation- or anion-exchange resin membrane encased in a plastic probe, which is inserted into the soil to measure nutrient supply in situ with minimal disturbance. Since the early 90's, the PRSTM-probe has been used to study soil nutrient dynamics by more than 200 researchers in over 20 countries. The PRSTM-probes are a convenient and economical means of quantifying both spatial and temporal variations in nutrient supply rates for all nutrient ions simultaneously, making them an essential tool in agronomic, turf, forestry, and environmental research.

REPRESENTATIVE: Ken Greer Dillon Chrimes
Fred Mensah

Willamette Exporting, Inc.

7330 SW 86th Ave.
Portland, OR 97223
Phone: 503-246-2671
Fax: 503-246-8675

www.europa.com/wex/

Booth 312

Willamette Exporting, Inc. provides crop binders and head threshing track combines, commercial harvesting equipment that can be adapted to meet the needs of specialized research. We also supply threshers, hullers and polishers for grain finishing and rice transplanters for precision planting.

REPRESENTATIVE: Max Webster Sara Webster

Wintersteiger

217 Wright Brothers Drive
Salt Lake City, UT 84116
Phone: 801-924-5707
Fax: 801-355-6541

www.wintersteiger.com

Booth 221, 219, 217, 118

Wintersteiger is the worldwide leading manufacturer for agricultural research equipment. Our product range includes 4 different size plot combines ranging from our Classic combine for small plots to the Split combine for harvesting 4 rows of corn or soybeans. We have our newest product the Delta combine on display. Features include a cab with air conditioning, the Harvestmaster electronic data recording system and several options for harvesting anything from small grain to row crops including a row crop header. New for this year is also our no-till version of the Hege 1000 seeder. It is equipped with no-till Flexicoil openers and is also on display. Smaller equipment like stationary threshers, seed treaters and seed counters are also part of our product range. We are looking forward to talking to you at our booth.

REPRESENTATIVE: Fritz Hoeckner Ron Flynn
Jill Burke Heidi Maeder
Steve Arnolds Jerry Ingleby
Pat enquist Sarah Adamson

ASA–CSSA–SSSA Awards Programs

New Officers Awards Fellows

Exceptional Achievement



Distinguished Service



Professional Commitment



ASA–CSSA–SSSA Undergraduate Student Awards 32
Soil Science Society of America Awards & Fellows 33
Crop Science Society of America Awards & Fellows 40
American Society of Agronomy Awards & Fellows 46

ASA-CSSA-SSSA Student Awards

Student Speech Contest

The Student Speech Contest, initiated in 1961, is a way for students to improve their public speaking abilities. The contest takes place at the Annual Meetings where contestants prepare a speech on one of three topics selected approximately six hours prior to the contest. They are rated on voice, physical manner, speech structure, development, language, and value and effectiveness. The final contest will be held on 6 November, 7–8 pm, in the Convention Center, Room 251DEF. Cash prizes are given to the top six finalists and a cash award is given to the top soil and water conservation speech by Division S-6 Soil and Water Management and Conservation.

Manuscript Contest

The Manuscript Contest, started in 1933, provides students with experience in researching, organizing, and writing articles on agronomy, crops, soils, and environmental science topics. The first place winner in the 2005 contest was Amy Troyer, University of Illinois, for her manuscript, *Urban Sprawl: A Growing Concern for Agriculture*. Daina Klimanis, University of Maryland, placed second for her manuscript, *Anthropogenic Sulfur Effects on Marshland Sulfate Sources*. Julie Hill, University of Maryland, placed third for her manuscript, *Inhibition of Vesicular-Arbuscular Mycorrhizae on Soybean Roots following Brassica Cover Crop*. Joel Wilkinson, Texas A&M University, placed fourth for his manuscript, *Evaluating Potato Quality using Refractometry to Measure Brix*. Nathan Schnettgoecke, University of Illinois, placed fifth for his manuscript, *Integrating Beef and Crop Production*. Cash awards are given to the top five finalists through the ASF Darrel S. Metcalfe Manuscript Contest Fund.

National Soil Judging Contest

The National Soil Judging Contest has been held at a different host institution each year since 1961. Undergraduate teams are expected to correctly identify, evaluate, classify, and describe four soil profiles. Twenty-two universities and 140 undergraduate students partic-

ipated in the 2005 contest hosted by Auburn University. In the team competition, the Virginia Tech University won first place; the University of Arizona placed second; University of Rhode Island placed third; University of Georgia placed fourth; and the University of Wisconsin, Platteville placed fifth. Doug Frisco, Virginia Tech, took first place in the individual competition. The first place team was presented a traveling trophy and the top five teams received trophies. The five highest scoring individuals received plaques.

Collegiate Crops Contest

The Collegiate Crops Contest is held each year. Students are judged on grain grading, plant and seed identification and seed analysis. For the sixth straight year, Kansas State University won both the Kansas City Board of Trade and Chicago Collegiate Crops Contests in November 2004. The University of Wisconsin, Platteville placed second and the University of Minnesota, Crookston placed third in both contests. The Kansas City Board of Trade was the primary sponsor of the 71st Annual Kansas City Collegiate Crops Contest. The Chicago Board of Trade was the primary sponsor of the 75th Annual Chicago Collegiate Crops Contest. The contests are also supported by ASA and CSSA.

National Visual Presentation Contest

The National Visual Presentation Contest develops a student's ability to prepare visual presentation materials through electronic presentation software. Students demonstrate the ability to communicate an idea to a small group audience while showcasing their photography and communication skills. Judging is conducted approximately three weeks before the annual meetings. Pioneer Hi-Bred International, Inc. provides cash awards to the top three winners and their affiliated clubs.

National Student Research Symposium Contest

The National Student Research Symposium Contest is held at the Annual Meetings each year. Students conduct research and competitively present those findings through oral and poster presentations. Papers are judged on title, abstract, organization and content, presentation, visual aids, research quality and response to questions. Contestants must complete the research as an undergraduate. The oral sessions will be judged on Sunday, 6 November from 1:00–3:30 pm in the Convention Center, Rooms 251AB and 251 DEF, and the poster session will be judged on 7 November from 8:00–10:00 am in the Convention Center, Exhibit Hall ABC. The top three contestants in each session receive cash prizes.

National Poster Presentation Contest

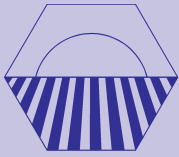
The National Poster Presentation Contest showcases undergraduate work through club activities, and gives clubs recognition for promoting agronomy, crops, soils and environmental sciences on their college campus or local communities. The contest will be judged during the annual meetings on Sunday, 6 November from 1:00–2:30 pm in the Convention Center, East Lobby, Upper Level. Posters will be on display during convention week.

Outstanding Student Award

The ASA-CSSA-SSSA Outstanding Student Award annually recognizes an outstanding senior in agronomy, crop science, soil science, or environmental science at each four-year and two-year institution that has an active club with SASES. Students are selected on the basis of their scholarship, leadership and participation in campus organizations. Thirty-eight students were recognized and announced in the April issue of *CSA News*. Students receive an engraved plaque as part of their recognition.



Salt Palace
Convention Center



SSSA Awards Program



Presented Tuesday, 8 November 2005, 11:30am–1:15pm *
Marriott Downtown, Grand Ballroom Salon ABCD, Lobby Level

* Purchase Awards Luncheon tickets at Registration in the East Lobby of the Salt Palace Convention Center.
There is limited space at the event to attend the awards program only.

SSSA Election Results for 2006

Newly Elected Division Officers

SSSA

The Society is pleased to present and recognize the following newly elected Division Officers for 2006:

Representatives to the SSSA Board of Directors

SSSA President-Elect

Rattan Lal, The Ohio State Univ., Columbus

Div. S-3, Soil Biology & Biochemistry

Richard P. Dick, The Ohio State Univ., Columbus

Div. S-6, Soil & Water Management & Conservation

Diane E. Stott, USDA-ARS, West Lafayette, IN

Div. S-9, Soil Mineralogy

Randal J. Southard, Univ. of California, Davis

Div. S-10, Wetland Soils

David L. Lindbo, North Carolina State Univ., Raleigh

Certified Professional Soil Scientist

Daniel G. Neary, USDA-Forest Service, Flagstaff, AZ

SSSA Division Chairs-Elect

Div. S-1, Soil Physics

Jiri Simunek, Univ. of California, Riverside

Div. S-2, Soil Chemistry

Stephen A. Boyd, Michigan State Univ., East Lansing

Div. S-3, Soil Biology & Biochemistry

Cindy H. Nakatsu, Purdue Univ., West Lafayette, IN

Div. S-4, Soil Fertility & Plant Nutrition

David W. Franzen, North Dakota State Univ., Fargo

Div. S-5, Pedology

Philip J. Schoeneberger, USDA-NRCS, Lincoln, NE

Div. S-6, Soil & Water Management & Conservation

Ted M. Zobeck, USDA-ARS, Lubbock, TX

President-Elect 2005–2006

Rattan Lal

Rattan Lal is a professor of soil physics in the School of Natural Resources and Director of the Carbon Management and Sequestration Center, FAES/OARDC at The Ohio State University. Prior to joining OSU in 1987, he was a soil physicist for 18 years at the International Institute of Tropical Agriculture, Ibadan, Nigeria. Dr. Lal is a fellow of SSSA, ASA, Third World Academy of Sciences, American Association for the Advancement of Sciences, Soil and Water Conservation Society, and Indian Academy of Agricultural Sciences. He is the recipient of the International Soil Science Award, the Soil Science Applied Research Award, and Soil Science Research Award of SSSA, the International Agronomy Award, Agronomic Services Award, and Environment Quality Research Award of ASA, and the Hugh Hammond Bennett Award of the Soil and Water Conservation Society, and the Borlaug Award. He is the recipient of 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. He was a member of the U.S. National Committee on Soil Science of the National Academy of Sciences (1998–2002). 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 1,100 research publications; in addition, he has written nine and edited or co-edited 43 books.



L.R. Ahuja Ag Systems Modeling Fellowship

The L.R. Ahuja Ag Systems Modeling Fellowship was designed to encourage and train upcoming young scientists for using computer models of agricultural systems in their field research. The fellowship is supported by a gift from Dr. Lajpat Ahuja to the Agronomic Science Foundation; the selection process is administered by SSSA.

Jennifer Gilbert

Jennifer Gilbert is a USDA National Needs Fellow working on her Ph.D. in the Plant and Soil Sciences Department at the University of Delaware. She earned her B.S. at the State University of New York at Buffalo in environmental science and her masters from the University of Connecticut in the Natural Resources Management and Engineering department with a focus on urban stormwater. Jennifer is an active member of the Soil Science Society of America and the SERA-17 phosphorus work group. Her current research focus is on modifying vegetated filter strip (VFS) design to increase phosphorus (P) trapping capabilities, and then modeling P transport through filter strips to improve VFS placement.



Emil Truog Soil Science Award

The Emil Truog Award is presented by SSSA and is supported through funds originally derived from Society members and a bequest from Dr. Truog's estate. Dr. Truog served as Chair of the Soil Science Department at the University of Wisconsin from 1939 to 1953 and was one of the founding members of SSSA.

The Emil Truog Award is given to a Ph.D. recipient who has made an outstanding contribution to soil science as evidenced by his or her Ph.D. dissertation. The awardee must have received the Ph.D. degree during the preceding calendar year.

Thomas M. DeSutter

Tom DeSutter is a Post-Doctoral Research Agronomist with the USDA-ARS National Soil Tilth Laboratory in Ames, IA. Dr. DeSutter earned his B.S. and M.S. degrees from South Dakota State University, and his Ph.D. degree from Kansas State University. His program currently focuses on air quality and developing a subsurface-gradient technique to continuously monitor carbon dioxide fluxes from soil.



Francis and Evelyn Clark Soil Biology Scholarship

The Francis and Evelyn Clark Soil Biology Scholarship was established to recognize the importance of soil biology and the understanding of soil, plant, and microbial interactions and of nutrient cycling in terrestrial ecosystems.

The scholarship is supported by a gift from Dr. and Mrs. Francis Clark to the Agronomic Science Foundation. The selection process is administered by SSSA.

Peter Tomlinson

Peter Tomlinson will be a Ph.D. candidate and senior graduate research assistant working with Mary C. Savin in the Crop, Soil and Environmental Sciences Department at the University of Arkansas. Mr. Tomlinson earned his B.S. degree from the University of Connecticut in 2000 and his M.S. degree in 2005 under the direction of Dr. Savin at the University of Arkansas. His master's thesis research focused on the dynamics and structure of microbial communities in soils with a history of eight years of annual poultry litter additions. Mr. Tomlinson's dissertation research will involve an examination of microbial community structure in relation to gross C and N dynamics in earthworm burrows as model biological systems.



Don & Betty Kirkham Soil Physics Award

The Don and Betty Kirkham Soil Physics Award recognizes midcareer soil scientists who have made outstanding contributions in the area of soil physics. The principal criteria for the award are significance and originality of basic and applied research in soil physics, quality and impact of teaching soil physics at undergraduate and graduate levels, and total impact of contributions on soil science and other fields, nationally and internationally, as well as on the world community at large.

The Don and Betty Kirkham Soil Physics Award is supported by the Lena and Maria Van der Ploeg Fund and the Don and Betty Kirkham Funds, both funds of which have been established in the Agronomic Science Foundation.

Jirka Simunek

Jirka Simunek is a Professor and Hydrologist in the Department of the Environmental Sciences at the University of California Riverside. Dr. Simunek earned his M.S. degree from the Czech Technical University in Prague, Czech Republic, and his Ph.D. degree from the Academy of Sciences of the Czech Republic in Prague. His program focuses mainly on mathematical/numerical modeling of various vadose zone processes and development of HYDRUS models. Dr. Simunek served as an associate editor for *Vadose Zone Journal* and is serving as an associated editor for *Water Resources Research and Hydrological Sciences Journal*. He is a member of the American Geophysical Union, International Association of Hydrological Sciences, and SSSA.



Irrrometer Professional Certification Service Award

The Irrrometer Professional Certification Service Award recognizes an outstanding certified professional who has demonstrated adherence to the certification goals and personal growth, impact on associates and the public at large. Service involving consulting, cooperation with industry, community development, and/or public extension and research programs is strongly solicited.

The award is administered by SSSA and supported by the Irrrometer Company to the Agronomic Science Foundation.

Brad L. Inman

Brad Inman has firm-wide responsibilities as a Senior Soil Scientist, Agronomist for the Global Water Business Group of CH2M HILL.



CH2M HILL is a project consulting delivery firm with over 15,000 employees and 200 offices world-wide that helps their clients apply technology and safeguard the environment. He currently is a Principal Technologist in the Agricultural Services technology group. He manages and conducts soil and agronomic investigations for a wide range of projects including irrigation development, wetland treatment and restoration, wastewater and biosolids site investigations. He served as a Congressional Science Fellow where he analyzed and promoted legislative issues concerning agriculture and the environment for U.S. Senator Max Baucus as part of the ASA-CSSA-SSSA Fellowship program in 1994–1995. He also served as member of the Board of Directors of Council for Agricultural Science and Technology (CAST) from 1997 to 2000 representing the ASA, and was elected by the Board and served as CAST President, 2001–2002. He earned his B.S. in General Agronomy and Agricultural Education from Purdue University and his M.S. in Soil Science from Cornell University. He is a Certified Professional Soil Scientist and Agronomist with ARC-PACS.

Marion L. & Chrystie M. Jackson Soil Science Award

The Marion L. and Chrystie M. Jackson Soil Science Award recognizes mid-career soil scientists who have made outstanding contributions in the areas of soil chemistry and mineralogy. The principal criteria for the award are significance and originality of research, excellence in creative reasoning, quality of teaching, and total impact of contributions on soil science and other fields.

The award is administered by SSSA and supported through a contribution by Dr. and Mrs. Marion L. Jackson to the Agronomic Science Foundation.

Douglas W. Ming

Doug Ming is a Space Scientist and Soil Mineralogist in the Astromaterials Research and Exploration Science Directorate at the NASA Johnson Space Center. Dr. Ming earned his B.S. and M.S. degrees from Colorado State University, and his Ph.D. from Texas A&M University. His research focuses mainly on the mineralogy and chemistry of surface materials on Mars and the development of plant growth systems for space flight. Dr. Ming served as Division Chair for S-9 and an associate editor for SSSAJ. He is active in the Clay Minerals Society, Mineralogical Society of America, American Geophysical Union, and The Meteoritical Society. Dr. Ming has served as the president of the International Natural Zeolite Association.

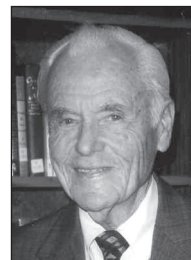


Soil Science Distinguished Service Awards

The Soil Science Distinguished Service Award is presented in recognition of outstanding service to soil science. Selection is based on the nominee's contributions during his or her career. Members eligible for the award must have 25 years or more of active membership in the Society and have ceased full-time professional employment.

B.L. Allen

B. L. Allen is Rockwell Professor Emeritus of Soil Science in the Plant and Soil Science Department at Texas Tech University. Dr. Allen earned a B.S. degree from Texas Tech University and M.S. and Ph.D. degrees from Michigan State University. Dr. Allen taught courses in Basic Soils, Soil Classification, Pedology, and Soil Mineralogy at Texas Tech. His research interests were mostly in pedology and soil mineralogy, primarily in soils of semiarid and arid regions. He directed more than 40 M.S. and Ph.D. students. He is a Fellow of SSSA, ASA, and AAAS. He is a former recipient of the SSSA Education Award.



Stanley W. Buol

Stan Buol is a Distinguished Professor Emeritus in the Soil Science Department at North Carolina State University. After receiving a B.S., M.S. and Ph.D. at the University of Wisconsin, Dr. Buol joined the faculty at the University of Arizona in 1960, and in 1966 at North Carolina. He served as major professor for 42 Ph.D. and 35 M.S. students and in 1990 received an Alumni Distinguished Graduate Professorship and in 1992 received a William Neal Reynolds Distinguished Professorship. He is a fellow of ASA and SSSA (1978) and received the SSSA International Soil Science Award (1989). In addition to numerous research publications, Dr. Buol co-authored five editions of the graduate text, *Soil Genesis and Classification*.



John Letey

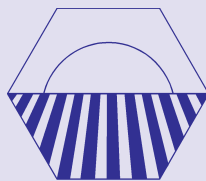
John Letey, Jr. is Distinguished Professor of Soil Science, Emeritus at the University of California-Riverside. Dr. Letey earned his B.S. degree at Colorado State University and Ph.D. at the University of Illinois. His research led to 300 publications and the



Soil Science Achievement Awards

The Society recognizes the following individuals with the Industry Award, Research Award, Education Award, Applied Research Award, Professional Service Award, and International Soil Science Award for their outstanding achievements in soil science through education, research, and national and international service.

Recipients of these awards are productive, competent individuals known for original and significant research and for an outstanding ability to inspire the qualities of sound thinking, objectivity, integrity, and cooperativeness in students and others with whom they associate.



Soil Science Research Award. Dr. Letey was instrumental in establishing one of the first undergraduate environmental science degree programs in the U.S. and taught the Introductory Environmental Science and Water Resources courses within that program. He served as Chair of the Department of Soil and Environmental Sciences, Director of the University of California Kearney Foundation of Soil Science, and Director of the University of California Center for Water Resources. Dr. Letey served on the National Academy of Science by being on the Water Science and Technology Board and making presentations to two NAS sponsored workshops in Tunisia.

Soil Science Industry Award

Raymond C. Ward

Raymond C. Ward is the President and owner of one of the Midwest's largest and most successful agricultural testing laboratories, Ward Laboratories, Inc. in Kearney, NE. Dr. Ward earned his B.S. and M.S. from the University of Nebraska-Lincoln and his Ph. D. in soil fertility from South Dakota State University. Throughout his professional career, Dr. Ward has focused on providing agricultural producers with the best possible soil fertility and nutrient management recommendations and information by offering state of the art soil, plant and water testing. Further, Dr. Ward's expertise is highly sought after by the agricultural community as is evidenced by more than 50 speaking engagements he makes annually.



Soil Science Research Award

Sridhar Komarneni

Sridhar Komarneni is a Professor of Clay Mineralogy in the Department of Crop and Soil Sciences at The Pennsylvania State University. Dr. Komarneni earned his B.S. from A.P. Agricultural University, M.S. from the Indian Agricultural Research Institute and Ph.D. from University of Wisconsin. He has a joint appointment with the Materials Research Institute. He has been serving as the Editor-in-Chief of *J. Porous Materials* since 1994. He has published more than 425 refereed papers, received 9 patents and edited/written 13 books. He has received numerous awards such as election as Fellow to five societies including SSSA, ASA, European Academy of Sciences and World Academy of Ceramics.



Soil Science Education Award

Gary M. Pierzynski

Gary M. Pierzynski is a professor of soil and environmental chemistry in the Department of Agronomy at Kansas State University with a teaching and research appointment. He received his B.S. in crop and soil science (1982) and his M.S. in soil environmen-



tal chemistry (1985) from Michigan State University in East Lansing, MI. He earned his Ph.D. in soil chemistry (1989) from The Ohio State University, Columbus. He currently serves as editor of the *Journal of Environmental Quality*. Dr. Pierzynski teaches courses on environmental quality, plant nutrient sources, soil and environmental chemistry, and advanced soil chemistry. He is the senior author on the textbook *Soils and Environmental Quality*, now in the third edition. Dr. Pierzynski is a Fellow of ASA and SSSA, has received the Outstanding Teaching and Outstanding Research Awards from Gamma Sigma Delta, and has been twice named Faculty of the Semester and received the Outstanding Academic Advisor Award from the College of Agriculture at Kansas State University.

Soil Science Applied Research Award

Gerald E. Schuman

Jerry Schuman is a Supervisory Soil Scientist at the High Plains Grasslands Research Station, with the Agricultural Research Service, USDA in Cheyenne, WY. He also serves as Adjunct Professor, Department of Renewable Resources, University of Wyoming. Dr. Schuman received his B.S. from the University of Wyoming, M.S. from the University of Nevada-Reno, and his Ph.D. from the University of Nebraska-Lincoln. His research program focuses mainly on land reclamation and soil carbon sequestration in rangelands as it relates to global climate change and serves on the Wyoming Governors Carbon Storage Task Force. Dr. Schuman served as associate editor of the *Journal of Range Management* and *Journal of Soil and Water Conservation* and has been active in SSSA, ASA, Soil and Water Conservation Society, American Society of Mining and Reclamation, and Society for Range Management.



Soil Science Professional Service Award

Raymond Allmaras

Raymond Allmaras is Professor Emeritus in the Soil, Water, and Climate Department, University of Minnesota. Dr. Allmaras earned his B.S., M.S. and Ph.D. from North Dakota State University, University of Nebraska, and Iowa State University. He served for 44 years with USDA-Agricultural Research Service in Nebraska, Minnesota, and Oregon; researched and gave outreach in many aspects of soil and water conservation; and provided 25 editor-years for four journals including *Soil Science Society of America Journal* and *Agronomy Journal*.



International Soil Science Award

Ahmet R. Mermut

Ahmet Mermut is a Professor in the Department of Soil Science at Harran University in Turkey and Adjunct Professor in the Department of Soil Science at the University of Saskatchewan, Canada. Dr. Mermut earned his B.S. and Ph.D. from the University of Ankara, Turkey with the support from The Agricultural University in Wageningen, the Netherlands. His research focuses mainly in the area of pedology, land resources especially for developing countries, and arid zones. Dr. Mermut served as an associate editor and editor for *Canadian Journal of Soil Science*, *Clays and Clay Minerals*, and *Scientific World* and has been active in Canadian Society of Soil Science, SSSA, and many developing countries.



SSSA Fellows

The Society is continuing a time-honored tradition this year with the presentation of Fellows. The Society has been electing outstanding members to the position of Fellow since 1976.

Fellows are active members of the Society who have been nominated to receive the honor of Fellow by other active members, recommended by the Fellows Committee, and elected by the SSSA Executive Committee. Up to 0.3% of the active members may be elected Fellow of SSSA

SSSA has chosen 14 individuals, based on their professional achievements and meritorious service, to receive this honor in 2005.



Stephen H. Anderson

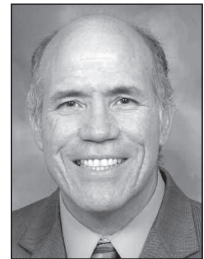
Stephen H. Anderson is a Professor of Soil Physics and Chair of the Department of Soil, Environmental and Atmospheric Sciences at the University of Missouri. He is also an Adjunct Professor in the Department of Agronomy. Dr. Anderson earned his B.S. in Agronomy from Brigham Young University and his M.S. and Ph.D. in Soil Science from North Carolina State University. His research focuses on the use of x-ray computed tomography for quantifying soil physical properties and processes. He teaches Soil Physics and Advanced Soil Physics, and co-teaches both Watershed Modeling Using GIS and Advanced Turf Management. He recently completed serving 14 years as the Director of Graduate Studies for the department. Dr. Anderson has served on several ASA and SSSA committees, as editor of the SSSA Special Publication *Tomography of Soil-Water-Root Processes*, and as associate editor of *Soil Science Society of America Journal*.



lege of Environmental Science and Forestry. His research is focused on the biogeochemistry of nutrients in agricultural, forested, and aquatic ecosystems, with an emphasis on the role of soils. He has conducted interdisciplinary research to study complex systems from a variety of approaches. David served as an associate editor for the *Soil Science Society of America Journal*, is currently as associate editor for the *Journal of Environmental Quality*, and has frequently served as a proposal panel member for the USDA and NSF.

Jorge A. Delgado

Jorge Delgado is a Senior Soil Scientist with the USDA-ARS Soil Plant Nutrient Research Unit, Fort Collins, Colorado. He is also a Faculty Affiliate with Colorado State University and "Ad Honorem" Professor with the Chinese Academy of Sciences, Shijiazhuang Institute of Agricultural Modernization. He serves as co-research advisor for M.S. and Ph.D. students and on graduate student committees. Dr. Delgado earned his B.S. degree from the University of Puerto Rico, Mayaguez, and his M.S. and Ph.D. from Louisiana State University, Baton Rouge, Louisiana. His research program focuses on improving nutrient management and soil and water conservation using new tools including GIS and modeling to maximize N recoveries and protect ground water. He has contributed to improve nitrogen management on vegetable – small grain rotations of irrigated systems and reduce nitrate leaching. Delgado contributed to the development of a new version of the NLEAP 1.20 model and correlated rooting depths



Mark B. David

Mark David is a Professor in the Department of Natural Resources and Environmental Sciences at the University of Illinois at Urbana-Champaign. Dr. David earned his B.S. from the Pennsylvania State University, M.S. from the University of Maine, and his Ph.D. from the State University of New York, Col-



with N use efficiencies, showing the potential to recover $\text{NO}_3\text{-N}$ from groundwater. His research has contributed to the use of winter cover crops by farmers resulting in increased nutrient use efficiencies and a reduction of nitrate leaching and wind erosion. Delgado demonstrated originality by leading the conceptualization, design, and implementation of isotopic chemistry studies (^{35}S and ^{15}N) that have been used to conduct nutrient research studies describing transport in soils, uptake and cycling. He has been invited to collaborate with scientists from the Chinese Academy of Sciences, University of Puerto Rico, Universidad del Este and INIFAP-Mexico, among others. Delgado also serves as Research Editor of the *Journal of Soil and Water Conservation* and Chair of the Soil and Water Conservation Society Editorial Board. He is a member of SSSA and Soil and Water Conservation Society Liaison Committee. Delgado has significantly contributed to strengthen the cooperation between the SSSA and SWCS.

Alan J. Franzluebbbers

Alan Franzluebbbers is a research ecologist with the USDA-Agricultural Research Service in Watkinsville, GA. He also holds an adjunct faculty position with the Department of Agronomy and Soils at Auburn University and has a pending application with the Department of Crop and Soil Sciences at the University of Georgia. Dr. Franzluebbbers earned his B.S. and M.S. from the University of Nebraska (1985, 1991) and his Ph.D. from Texas A&M University (1995). His research program focuses on soil organic matter management for development of sustainable agricultural systems. Conservation tillage, pasture management, and integrated crop-livestock production are topics of current interest. Franzluebbbers has served on several ASA and SSSA committees, has been an ad-hoc reviewer for *Agronomy Journal* and *Journal of Environmental Quality*, has been an associate editor for the *Soil Science Society of America Journal*, has been on the editorial board of *Soil Biology & Biochemistry*, and is currently on the editorial board of *Renewable Agriculture and Food Systems* and serving as a joint Editor-in-Chief of *Soil and Tillage Research*. He has helped to organize three



symposia at ASA-CSSA-SSSA Annual Meetings.

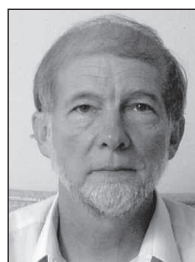
Satish C. Gupta

Satish Gupta is a Professor of Soil Physics and Soil Hydrology in the department of Soil, Water, and Climate at the University of Minnesota. He is a member of the Soil Science and Water Resources Science Graduate Faculty. Dr. Gupta earned his B.Sc. and M.Sc. from the Punjab Agricultural University in India and his Ph.D. from Utah State University. His research focus has been on water quality, landscape hydrology, unsaturated soil mechanics, soil structure, and waste utilization. Dr. Gupta teaches Contaminant Hydrology, Vadose Zone Hydrology, and Advance Soil Physics courses at the University of Minnesota. He has advised or co-advised 14 Ph.D. and 15 M.S. degree students and 13 post-doctoral research associates. He has authored or co-authored 135 research articles and 17 book chapters. Gupta is an associate editor of the *Journal of Environmental Quality* and has served as an associate editor of the *Soil Science Society of America Journal* and an editor-in-chief of *Soil Tillage Research*. He is also an associate fellow of the supercomputing institute at the University of Minnesota.



Willie G. Harris

Willie Harris is a professor in the Soil and Water Science Department, University of Florida, with research and teaching responsibilities. He received his Ph.D. from Virginia Tech. His general research activities relate to mineral stability and transformations in soils and sediments; properties of soil minerals; mineral distributions as related to stability and genetic processes; and soil properties as related to mineralogy.



Rainer Horn

Rainer Horn is a full Professor of the Institute of Plant Nutrition and Soil Science at the Agricultural and Food Science Faculty of the Christian Albrechts University zu Kiel, Germany. In 1973, Dr. Horn earned his Diploma degree in horticulture at the University of Hannover, followed by his Ph.D. in Soil Science in 1976 from the same university. His habilitation thesis in Soil Science was accepted by the Technical University Berlin. His research programme includes the analysis of physical, mechanical, and hydraulic processes in structured unsaturated agricultural and forest soils at various scales (from single aggregates to the landscape) and furthermore deals with the quantification of stress (mechanical and hydraulic) dependent changes in soil functions. Furthermore, he developed a long term rigid and impermeable waste deposit sealing system by also including the swell shrink dependent changes in pore rigidity and functioning. Horn serves at present as the President of ISTRO, as a commission chair in IUSS, and as an editorial advisory board member of more than 10 international journals.



Jeffrey S. Jacobsen

Jeff Jacobsen is Professor and Dean of the College of Agriculture and Director of the Montana Agricultural Experiment Station at Montana State University. Dr. Jacobsen earned his B.S. from Cal Poly-San Luis Obispo, M.S. at Colorado State University and Ph.D. from Oklahoma State University. His research, academic, and Extension program focuses on nutrient cycling in agricultural and natural systems, water quality and environmental sciences. Jacobsen has been active in the ICCA Program, and on committees with ASA and SSSA. He was named a Fellow of ASA in 2000.



Wesley M. Jarrell

Wes Jarrell is Professor of Soil Science and Head, Department of Natural Resources and Environmental Sciences, University of Illinois at Urbana-Champaign. He earned his B.A. in Biological Sciences at Stanford University, and his M.S. and Ph.D. in Soil Science at Oregon State University, and held earlier positions at University of California–Riverside, the Oregon Graduate Institute, and the University of Wisconsin.



John J. Meisinger

John (Jack) Meisinger is a Soil Scientist in the Animal and Natural Resource Institute at the USDA Beltsville Agriculture Research Center. He also serves as Adjunct Associate Professor in Soil Science in the Department of Natural Resource Sciences at the University of Maryland College Park. His research has focused on the agricultural nitrogen cycle and on developing improved nitrogen management practices. Dr. Meisinger has served as an officer in the Northeast Branch of ASA, as Division Chairman in SSSA, and been active in the Soil and Water Conservation Society of America.



Per Moldrup

Per Moldrup is an Associate Professor in the Life Sciences Department at Aalborg University, Denmark. Dr. Moldrup earned his M.S. and Ph.D. degrees at Aalborg University; with the Ph.D. study in collaboration with University of California–Davis. His program focuses on applied soil physics in environmental engineering, with emphasis on gas, solute and colloid transport processes in soils. Moldrup has served as an associate editor for *Soil Science Society of America Journal* and is on the editorial



board of *Soil Science*. He has served on and chaired the SSSA S-1 Early Career Award Committee.

Daniel G. Neary

Dan Neary is a Project Leader and Research Soil Scientist for the Watershed and Riparian Ecosystems Project, USDA Forest Service, Rocky Mountain Research Station, Flagstaff, Arizona. He is also an Adjunct Professor in the School of Natural Resources, University of Arizona, the Soil and Water Sciences Department, the University of Florida, and the School of Forestry, Northern Arizona University. Dr. Neary earned his B.S., M.S., and Ph.D. at Michigan State University. His research program focuses on the effects of wildfires, prescribed fires, and forest fuels treatments on soils and watersheds. Neary is a member of the American Water Resources Association, the Association for Fire Ecology, the International Erosion Control Association, and the International Wildland Fire Association. He is the USA national team co-leader of the International Energy Agency, Bioenergy Task 31: “Biomass Production for Energy from Sustainable Conventional Forestry.”



Bal Ram Singh

Bal Ram Singh is a professor in the Department of Plant and Environmental Sciences, Norwegian University of Life Sciences. Dr. Singh earned his M.Sc. degree from the Indian Agricultural Research Institute, New Delhi, and his Ph.D. from G.B. Pant University of Agriculture & Technology, Pantnagar, India. His program focuses on sorption and mobility of heavy metals in the soil and their plant availability in relation to soil and climatic conditions, fertility management and agricultural sustainability in soils of the tropics and soil carbon sequestration under different land uses. He has served as Chairman of the Executive board for “The Research Program on Plants and Soils” of the Research Council of Norway and of the Re-



search and Higher Education Committee in the department. He has been a member of the University Research and Higher Education Committee, the Executive Board of the International Society of Biogeochemistry of Trace Elements, the International Editorial Board of *Encyclopedia of Soil Science*, and the national committee on Geomedicine of the Norwegian Academy of Science and Letters. He has participated in several COST programs of EU and is a coordinator of a EU project. He is on the editorial board of two journals and a reviewer for 19 international journals including *SSSAJ* and *JEQ*. Dr. Singh is also a fellow of ASA.

Jon M. Wraith

Jon Wraith is a Professor of Soil and Environmental Physics and Head of the Department of Land Resources and Environmental Sciences at Montana State University. Dr. Wraith earned his B.S. from Humboldt State University, and his M.S. and Ph.D. from Utah State University. His program focuses on soil physical properties and processes; fate and transport of soil water and chemicals; soil and plant water relationships including agronomic and invasive species; soil microbial biophysics; and developing new or improved measurements and instrumentation. He has been a leader in the development and applications of time-domain reflectometry (TDR) techniques. Dr. Wraith served as an associate editor for *Soil Science Society of America Journal*, as member and chair of the Soil Science Teaching Award and Soil Science Research Award committees, has organized symposia for annual meetings, and will serve as chair for division S-1 Soil Physics during 2005–2006.





CSSA Awards Program



Presented Tuesday, 8 November 2005, 3:00–3:40pm *
Marriott Downtown, Grand Ballroom Salon EF, Lobby Level

* Tickets are not required to attend the CSSA Awards Program, which begins at 3pm.
The Klepper Lecture begins at 3:40pm, immediately following the Awards Program.

CSSA Election Results for 2006

Newly Elected Division Officers

CSSA

The Society is pleased to present and recognize the following newly elected Division Officers for 2006:

Representatives to the CSSA Board of Directors

CSSA President-Elect

Henry L. Shands, USDA-ARS, Fort Collins, CO

Div. C-2, Crop Physiology & Metabolism

Thomas J. Gerik, Texas Agric. Exp. Stn., Temple

Div. C-5, Turfgrass Science

Anthony J. Koski, Colorado State Univ., Fort Collins

CSSA Division Chairs-Elect

Div. C-1, Crop Breeding, Genetics & Cytology

Kimberly Garland Campbell, USDA-ARS, Pullman, WA

Div. C-2, Crop Physiology & Metabolism

Mary Beth Kirkham, Kansas State Univ., Manhattan

Div. C-3, Crop Ecology, Management & Quality

Perry R. Miller, Montana State Univ., Bozeman

Div. C-4, Seed Physiology, Production & Technology

Paul R. Beuselinck, USDA-ARS, Columbia, MO

Div. C-5, Turfgrass Science

Roch E. Gaussoin, Univ. of Nebraska, Lincoln

Div. C-6, Forage & Grazing Lands

Robert L. Kallenbach, Univ. of Missouri, Columbia

Div. C-7, Genomics, Molecular Genetics & Biotechnology

Mark E. Sorrells, Cornell Univ., Ithaca, NY

Div. C-8, Plant Genetic Resources

William F. Tracy, Univ. of Wisconsin, Madison

President-Elect 2005–2006

Henry L. Shands

Henry L. Shands is Director for the USDA-ARS National Center for Genetic Resources Preservation in Fort Collins, Colorado. He earned his B.S. from the University of Wisconsin and M.S. and Ph.D. degrees from Purdue University. Previously, Shands was the Agricultural Research Service's Assistant Administrator for Genetic Resources in Washington, DC after serving for 12 years on the USDA-ARS National Program Staff as Program Leader and Associate Deputy Administrator for Genetic Resources. Shands has been active in international research activities, including serving as Acting Director of the ARS International Programs Office and an Advisor with the Rural Development Department at the World Bank. He recently coordinated the World Bank's Genebank Upgrading Program for the CGIAR's International Agricultural Research Centers. His previous research focused on plant breeding and genetics of major food crops. Dr. Shands is a Fellow of CSSA, ASA, and the American Association for the Advancement of Science, and recipient of the Frank N. Meyer Medal for Plant Genetic Resources. In 2004, he was awarded the William L. Brown Medal for Excellence in Genetic Resources Conservation.



Gerald O. Mott Scholarship

The Gerald O. Mott Scholarship is provided to a meritorious student who has completed at least one year of graduate work leading to an M.S. or Ph.D. degree in a field of emphasis within crop science and who has outstanding potential for leadership. The scholarship is supported through a contribution by Mrs. Lorraine Mott and family, and contributions to the Agronomic Science Foundation.

Flavio Breseghello

Flavio Breseghello is a researcher and rice breeder in the National Research Center for Rice and Beans, of the Brazilian Institute of Agricultural Research – Embrapa. He earned his B.S. and M.S. from the Federal University of Goiás (Brazil) and his Ph.D. from Cornell University. At Cornell, Dr. Breseghello studied association analysis with microsatellite markers, a method that he plans to apply to Embrapa's rice breeding program to increase the efficiency of selection of quantitative traits.



Frank N. Meyer Medal for Plant Genetic Resources

The Frank N. Meyer Medal for Plant Genetic Resources is presented in commemoration of Frank N. Meyer who served for 13 years as Agricultural Explorer in the Office of Foreign Seed and Plant Introduction and who died while exploring in China. The memorial award was created in recognition of his contribution to the economic horticulture of America and service in the field of foreign plant introduction.

Geoffrey C. Hawtin

Geoff Hawtin is currently Senior Advisor to the Global Crop Diversity Trust, an international fund he helped establish to support long-term ex situ conservation around the world. Prior to that, he was Director General of the International Plant Genetic Resources Institute in Rome, Italy. He obtained both his M.A. and Ph.D. from Cambridge University, U.K. Geoff has been involved throughout his career in the conservation and use of plant genetic resources for development, living in Uganda, Lebanon, Egypt, Syria, Canada and Italy.



NCCPB Genetics and Plant Breeding Award for Industry

The Genetics and Plant Breeding Award for Industry is administered by CSSA and is financially supported by the National Council of Commercial Plant Breeders. The award is presented to a crop scientist who has made significant contributions in genetics and plant breeding during his or her career in the private sector. These contributions to plant science may be made through basic, applied, or developmental research in genetics and plant breeding.

Andrew D. Brede

Doug Brede is Research Director and one of three operating officers for Jacklin Seed by Simplot, Post Falls, ID. He received his B.S., M.S., and Ph.D. at Penn State University in turfgrass agronomy. He is the developer of over 60 popular turf varieties. He has authored peer-review and magazine articles and a book on reducing turf maintenance. Dr. Brede is an ASA Fellow and has been active in ASA and CSSA for 27 years. He has twice served as associate editor for *Agronomy Journal* and has published 88% of his technical articles in ASA-CSSA-SSSA periodicals.



Monsanto Crop Science Distinguished Career Award

The Monsanto Crop Science Distinguished Career Award is presented by the CSSA and is financially supported by Monsanto Company. The award consists of an honorarium and a certificate. The award is presented to a crop scientist who has exhibited an outstanding record of service during a minimum of 25 years.

Sant S. Virmani

Sant S. Virmani recently retired as Principal Scientist from International Rice Research Institute (IRRI), Manila, Philippines. He led IRRI's hybrid rice program and was the Team Leader of the Project "Genetic Enhancement for Yield, Grain Quality and Stress Resistance in Rice." Concurrently, he worked as Adjunct Professor of Agronomy, University of the Philippines at Los Banos, Philippines. Dr. Virmani obtained his B.S. and M.S. from Vikram University, Ujjain, India in 1961 and 1963, respectively and Ph.D. from Punjab Agricultural University, Ludhiana, India in 1969. Subsequently, he worked at IRRI (1970-1972, 1979-2005) and IITA (1973-1979). At IRRI, he pioneered research on developing hybrid rice technology for the tropics. For his contributions Virmani received: Pravasi Bhartiya Samman (Non-Resident Indian Honor) Award for Agriculture from the President of India (2005); Koshihikari International Rice Prize from Japan (2005); International Service in Crop Science Award from CSSA (2002); the 2000 Third World Network of Scientific Organization Award in Agriculture (2002); Agriculture and Rural Development Medal from the Ministry of Agriculture, Vietnam (2002); and Gold Medal and a Plaque of appreciation from the Asia Pacific Seed Association (2000). He is Fellow of: National Academy of Agricultural Sciences, India (1995); American Society of Agronomy (1999); Crop Science Society of America (2001); Crop Science Society of the Philippines (2001); and American Association of Advancement of Sciences (2002). He is a member of the editorial board of *Journal of Plant Breeding* (EUPHYTICA) since 1987.



Young Crop Scientist Award

This award is designed to recognize a young scientist who has made an outstanding contribution in any area of crop science by the age of 37. Specifically, the recipient is cited for teaching abilities, effectiveness in extension and service activities, significance and originality of basic and applied research, and effectiveness in administrative areas.

Stacy Bonos

Stacy Bonos is an Assistant Professor and Extension Specialist of Turfgrass Breeding and Genetics in the Plant Biology and Pathology Department at Rutgers University.



Dr. Bonos earned her B.S. from Gettysburg College and her M.S. and Ph.D. from Rutgers University. Bonos' research program focuses on the development of turfgrass cultivars with improved pest and stress tolerance using both molecular and classical breeding techniques. Recent accomplishments include the development of several turfgrass cultivars with improved disease resistance and the development of a genetic linkage map of creeping bentgrass. Bonos advises and teaches both graduate and undergraduate students. Her outreach program includes numerous extension publications and presentations per year in the form of research field days and educational seminars. Bonos has served as an associate editor for *Applied Turfgrass Science Journal* and section editor for the *International Turfgrass Society Research Journal*. She is active in the C-5 Division of CSSA, International Turfgrass Society and the Turfgrass Breeders Association where she has served on the board of directors for the past three years.

Fred V. Grau Turfgrass Science Award

The Fred V. Grau Turfgrass Science Award is presented by CSSA and is supported by a fund developed by Division C-5 Turfgrass Science.

The award is presented in recognition of significant career contributions in turfgrass science. The principal criteria for selecting the recipient are significance and originality of research, teaching effectiveness, implementation of programs in extension and/or industry, administrative effectiveness, and total impact on turfgrass science.

Andrew D. Brede

Doug Brede is Research Director and one of three operating officers for Jacklin Seed by Simplot, Post Falls, Idaho. He received his B.S., M.S., and Ph.D. at Penn State University in turfgrass agronomy. Dr. Brede is the developer of over 60 popular turf varieties. He has authored peer-review and magazine articles and a book on reducing turf maintenance. Brede is an ASA Fellow and has been active in ASA/CSSA for 27 years. He has twice served as associate editor for *Agronomy Journal* and has published 88% of his technical articles in ASA-CSSA-SSSA periodicals.



Seed Science Award

The Seed Science Award is presented by CSSA and is financially supported by Pioneer Hi-Bred International, Inc.

The award is presented in recognition of distinctive service to the development and use of quality seeds in agriculture. The principal criteria for the award are significance and originality of research, contributions to extension and service activities, educational activities relative to training seed scientists, international contributions, and professional interactions with seed-related organizations.

Norman Hopper

Norman Hopper is a Piper Professor in the Department of Plant and Soil Science at Texas Tech University and holds a joint appointment with the Texas Agricultural Experiment Station at Texas A&M University. He also serves as Associate Dean for Academic and Student Programs in the College of Agricultural Sciences and Natural Resources at Texas Tech University. Dr. Hopper earned his B.S. and M.S. from Texas Tech University, and his Ph.D. from Iowa State University. His program focuses mainly on means of assessing various seed quality factors in cotton. Hopper has served in several positions with CSSA (Chair of Div. C-4, various committees, etc.) and has also been active in the ASA and the Beltwide Cotton Conferences.



International Service in Crop Science Award

The International Service in Crop Science Award recognizes creativity and innovation in bringing about specific changes in practices, products, and/or programs in the crops area at the international level.

Bent Skovmand

Bent Skovmand is director of the Nordic Gene Bank (NGB), Sweden. He holds an appointment as Adjunct Professor for Plant Genetic Resources at the Royal Veterinary and Agricultural University in Copenhagen, Denmark. Dr. Skovmand earned his B.S., M.S., and Ph.D. from University of Minnesota. He is a citizen of Denmark. Skovmand manages the NGB, an institution under the Nordic Council of Ministers; NGB is a regional center for conservation and utilization of plant genetic resources (PGR) and supports several regional programs in Africa. Before his appointment at NGB, Bent Skovmand was a Principal Scientist at the International



Maize and Wheat Improvement Center, Mexico. Since 1988 he was Head of Wheat Genetic Resources and from 1999, Coordinator of all genetic resources activities at the center. His research focused on wheat, rye and triticale, directed towards the conservation and utilization of *Triticum* genetic resources. He has served on a number of international committees and has supported the CSSA as Chair of Section C-8 and as member of several other CSSA committees. Dr. Skovmand is a Fellow of ASA and CSSA, a recipient of the Frank N. Myer Medal for Plant Genetic Resources, and he was awarded the Knight Order of Dannebrog by Queen Magrethe II of Denmark.

Crop Science Teaching Award

The Crop Science Teaching Award is presented for resident classroom teaching of crop science at the undergraduate and graduate levels. The principal criteria for selecting the recipient are classroom skills as evidenced by peer and student evaluations, innovative and unique approaches to teaching, influence of the recipient on the professional performance of former students, effectiveness in counseling students, contributions to the overall effectiveness of undergraduate and graduate teaching programs, professional publications and presentations related to crop science teaching, contributions in professional societies that emphasize excellence in crop science teaching, and recognition of accomplishments as a classroom teacher.

Russell E. Mullen

Russell Mullen is Professor of Agronomy and a faculty member of the Graduate Program in Sustainable Agriculture at Iowa State University. He teaches courses in crop production, crop quality and utilization, and international agriculture. He advises students in agronomy and seed science, and conducts research in seed physiology and sustainable agriculture. Dr. Mullen received his M.S. in Education from Northwest Missouri State University and his Ph.D. in Crop Physiology and Manage-



ment from Purdue University. His teaching efforts have focused on developing computer integrated multimedia programs to improve student learning of agronomic principles for on-campus and distance students, improving curricula through learner outcomes assessment, and improving global agriculture awareness in students. His research focuses on the effects of environmental and biological stresses on seed yield and quality of soybeans and factors affecting sustainable agriculture and community development. He is an ASA and CSSA Fellow and a recipient of the ASA Resident Education Award.

Crop Science Extension Education Award

The Crop Science Extension Education Award is presented in recognition of excellence in extension teaching activities in the area of crop science. The award criteria are based on educational innovation developed and used successfully and include demonstrated ability to communicate client attitudes, influence client attitudes, and motivate change in client or audience action.

James E. Beuerlein

Jim Beuerlein is a Professor of Agronomy in the Horticulture and Crop Science Department at The Ohio State University. He serves as the State Extension Specialist for soybean and small grain. Dr. Beuerlein earned his B.S. and M.S. from the University of Tennessee, and his Ph.D. degree from the University of Illinois. His extension and research programs focus on profitable crop production. He has been an ASA, and CSSA member for 35 years and serves on the Board of Directors of the Ohio Soybean Association, the Ohio Wheat Growers Association, and Ohio Foundation Seeds.



Crop Science Research Award

The Crop Science Research Award is presented for excellence in research. The principal criteria for choosing the recipient are significance and originality of basic and applied research contributions in crop science; excellence in creative reasoning and skill in obtaining significant data; and total impact of contributions on crop science and other fields, nationally and internationally.

Major M. Goodman

Major Goodman is a William Neal Reynolds Professor and Distinguished University Professor in the Department of Crop Science at NC State University. He received his B.S. in Math from Iowa State, his M.S. and Ph.D. in Genetics from NC State, and held an NSF Post-doctoral Fellowship at ESALQ of the University of Sao Paulo in Piracicaba, Brazil. His program specializes in the study and utilization of tropical maize germplasm and the education of field-oriented plant breeding graduate students. His maize breeding efforts have resulted in the release of over 100 inbred lines, many of which are 50% to 100% tropical but adapted to the US. He has studied and characterized most of the races of maize of Latin America. Dr. Goodman pioneered the use of multivariate and molecular-marker analyses for racial studies in maize. He is a member of the Society for Economic Botany and the National Academy of Sciences.



CSSA Fellows

The Society is continuing a time-honored tradition this year with the presentation of Fellows. The Society has been electing outstanding members to the position of Fellow since 1985.

Friends and colleagues within the Society nominate worthy members and the CSSA Committee on the Nomination of Fellows, with the CSSA Past President acting as nonvoting chair, carefully ranks the nominees. The CSSA Executive Committee ratifies the election.

CSSA has chosen 10 individuals, based on their professional achievements and meritorious service, to receive this honor in 2005.



Rex Bernardo

Rex Bernardo is a professor and endowed chair in corn breeding and genetics in the Department of Agronomy and Plant Genetics, University of Minnesota. He obtained a B.S. in agriculture



at the Visayas State College of Agriculture in the Philippines in 1984, and a Ph.D. in plant breeding and genetics at the University of Illinois at Urbana-Champaign in 1988. Dr. Bernardo's research focuses on the use of quantitative genetics theory and molecular markers to improve the efficiency of plant breeding methods, particularly for corn. Bernardo teaches a graduate course on the application of quantitative genetics to plant breeding and a graduate course on publishing in plant science journals. He is currently director of the Applied Plant Sciences graduate program at the University of Minnesota. Bernardo has served as associate editor and technical editor of *Crop Science*. He received the CSSA Young Crop Scientist Award in 1999 and is the incoming chair of CSSA Division C-1.

Andrew D. Brede

Doug Brede is Research Director and one of three operating officers for Jacklin Seed by Simplot, Post Falls, Idaho. He received his B.S., M.S., and Ph.D. at Penn State University in turfgrass agronomy. Dr. Brede is the developer of over 60 popular turf varieties. He has authored peer-review and magazine articles and a book on reducing turf maintenance. Brede is an ASA Fellow and has been active in ASA and CSSA for 27 years. He has twice served as associate editor for *Agronomy Journal* and has published 88% of his technical articles in Society periodicals.



Paul R. Carter

Paul Carter is Director, Agronomy Sciences, with Pioneer Hi-Bred International. Dr. Carter earned his B. S. degree at North Dakota State University and his M. S. and Ph. D. from the University of Minnesota. Paul's team at Pioneer provides technical support to Pioneer field sales agronomists and conducts agronomic field research. Before joining Pioneer he was Professor and Extension Agronomist at the University of Wisconsin-Madison.



Paul Gepts

Paul Gepts is a Professor and Geneticist in the Department of Plant Sciences at the University of California, Davis. He is a native of Belgium where he earned a degree in Plant Protection at the Faculté des Sciences Agronomiques de Gembloux. He earned his Ph.D. in Plant Breeding and Plant Genetics from the University of Wisconsin-Madison, and pursued postdoctoral studies at the University of California-Riverside.



James E. Hill

Jim Hill is Extension Specialist and currently Associate Dean for International Programs in the College of Agriculture and Environmental Sciences at UC Davis. He received his B.S. from Cal Poly San Luis Obispo and his Ph.D. from the University of California. His research and extension programs focused on the evaluation, management and adoption of semidwarf rice in California. His work also included research and education programs to mitigate off-site environmental effects related to rice production, including water and air quality. Dr. Hill has served as Chair of the Department of Agronomy and Range Science and Vice Chair for Outreach and Extension in the Department of Plant Sciences at UC Davis. He also was Program Leader for Irrigated Rice and Division Head of Crop, Soil and Water Science at the International Rice Research Institute. He has been Chair of the USA Rice Technical Working Group and the International Temperate Rice Conference. He is active in and a chair-elect of Division A-4 and an ASA Fellow.



Frederick L. Kolb

Frederick L. Kolb is a Professor of Plant Breeding in the Department of Crop Sciences at the University of Illinois. Dr. Kolb earned his B.S. degree in Biology at Pennsylvania State University and his M.S. and Ph.D. in Agronomy - Plant Breeding also at Pennsylvania State University. Kolb's research on soft red winter wheat and spring oats is focused on development of improved wheat and oat varieties, scab resistance in wheat, barley yellow dwarf virus tolerance in oat, and identification of molecular markers associated with genes for resistance to these diseases. For the past five years, Kolb has also served as the Teaching Coordinator for the Crop Sciences Department. He has served on several ASA and CSSA committees, as Chair of the CSSA Crop Registration Oat Subcommittee, and as Chair of Division C-1. Dr. Kolb is an ASA Fellow.



Shaobing Peng

Shaobing Peng is a Senior Crop Physiologist at the International Rice Research Institute and a Chang Jiang Chair Professor (Chang Jiang Scholars Program, Ministry of Education) of Huazhong Agricultural University, China. He earned his B.S. from Huazhong Agricultural University, his M.S. degree from the University of California, Davis, and his Ph.D. degree from Texas Tech University. Dr. Peng's research focuses on crop management and physiology of rice yield potential in the irrigated ecosystem. He currently serves on the editorial boards of *Crop Science*, *Field Crops Research*, and *Plant Production Science*. Peng is a Fellow of the American Society of Agronomy.



Ravi P. Singh

Ravi P. Singh is a Principal Scientist at the International Maize and Wheat Improvement Center (CIMMYT), Mexico, where he is leader of spring bread wheat improvement for intensive agro-ecosystems. He earned his B.S.(Hons.) and M.S. degrees from Banaras Hindu University, Varanasi, India, and Ph.D. from the University of Sydney, Australia. Singh's research focuses on genetics and breeding of wheat with emphasis on durable resistance to rust diseases. He has developed, or contributed to the development of, wheat germplasm that has resulted in the release of over 160 cultivars in numerous developing countries. Singh also is an Adjunct Professor at Kansas State University.



J. Stephen C. Smith

Stephen Smith holds the position of Research Fellow and Germplasm Security Coordinator at Pioneer Hi-Bred International, Inc., in Johnston, Iowa. Dr. Smith earned his B.S. at Wye College, the University of London and his M.S. and Ph.D. at University of Birmingham in the United Kingdom. Stephen joined Pioneer in 1980 as a post-doctoral research fellow and soon after completed the first peer-reviewed research applying molecular methods to the evolution of maize. His work accelerated efforts to conserve teosinte, the historical ancestor of modern corn. An expert in germplasm security, he has employed molecular tools to describe and authenticate varieties, characterize genetic diversity and determine plant pedigrees. In addition, Stephen's published research has provided justification to strengthen and broaden the genetic base of U.S. corn.



Richard R.C. Wang

Richard R.-C. Wang is a Research Geneticist at the USDA-ARS Forage and Range Research Laboratory, Logan, Utah. He earned his B.S. from National Taiwan University and his M.S. and Ph.D. from Rutgers University. Dr. Wang's research focuses on molecular genome analysis and germplasm development of forage species including perennial grasses and kochia. He led the germplasm development research and is now actively involved in technology transfer of salt-tolerant wheat to world communities. He served as member and then Chair of the CSSA Crop Science Research Award Committee and serves as a member of International Crop Science Committee and the Chair of the Societies Minorities in Agronomy Committee.





ASA Awards Program



Presented Wednesday, 9 November 2005, 11:30am–1:15pm *
Marriott Downtown, Grand Ballroom Salon ABCD, Lobby Level

* Purchase Awards Luncheon tickets at Registration in the East Lobby of the Salt Palace Convention Center.
There is limited space at the event to attend the awards program only.

ASA Election Results for 2006

Newly Elected Division Officers

ASA

The Society is pleased to present and recognize the following newly elected Division Officers for 2006:

Representatives to the ASA Board of Directors

ASA President-Elect

Jerry L. Hatfield, USDA-ARS Natl. Soil Tilth Lab., Ames, IA

Div. A-2, Military Land Use & Management

Robert M. Lacey, U.S. Army Engineer Research and Development Center, Champaign, IL

Div. A-4, Extension Education

Robert N. Klein, Univ. of Nebraska, North Platte

Div. A-6, International Agronomy

Roland J. Buresh, Intl. Rice Research Inst., Manila, Philippines

Div. A-8, Integrated Agricultural Systems

Newell R. Kitchen, USDA-ARS, Columbia, MO

ASA Division Chairs Elect

Div. A-1, Resident Education

Lee Burras, Iowa State Univ., Ames

Div. A-2, Military Land Use & Management

Heidi R. Howard, U.S. Army Engineer Research and Development Center, Champaign, IL

Div. A-3, Agroclimatology & Agronomic Modeling

Steven R. Evett, USDA-ARS, Bushland, TX

Div. A-4, Extension Education

James E. Hill, Univ. of California, Davis

Div. A-5, Environmental Quality

Stephen R. Kaffka, Univ. of California, Davis

Div. A-6, International Agronomy

J. Mark Powell, USDA-ARS, Madison, WI

Div. A-7, Agricultural Research Station Management

Rick M. Bottoms, New Mexico State Univ., Las Cruces

Div. A-8, Integrated Agricultural Systems

Patrick M. Carr, North Dakota State Univ., Dickinson

Div. A-9, Professional Practitioners

Jeffrey A. Bunting, GROWMARK Inc., Bloomington, IL

President-Elect 2005–2006

Jerry L. Hatfield

Jerry Hatfield received his Ph.D. from Iowa State University in 1975 in Agricultural Climatology and Statistics (minor), a B.S. degree in Agronomy from Kansas State University in 1971, and a M.S. degree in Agronomy from the University of Kentucky in 1972. He served as the Biometeorologist at the University of California-Davis from 1975-1983 and Research Leader of the Plant Stress and Water Conservation Unit in Lubbock, TX from 1983–1989. In 1989 he became the Laboratory Director of the USDA-ARS National Soil Tilth Laboratory in Ames, Iowa. He has developed several watershed scale projects to address concerns about the spatial and temporal impacts of farming practices on environmental quality. His research focuses on the interaction of water, nutrients, carbon, and light in crop response to management systems across varying landscapes. He integrates remotely sensed information into agricultural management decisions to enhance agricultural production efficiency. He is recognized as one of the international authorities on the impact of crop and livestock components of agricultural systems on air, water, and soil quality. He is a Fellow of ASA, CSSA, and SSSA, and a recipient of the Arthur S. Flemming Award for Outstanding Federal service in 1997, ARS Outstanding Scientist of the Year Award in 1999, and the Distinguished Service Award for Research from Kansas State University in 2002. He is the co-editor of the recent ASA-CSSA-SSSA Monograph, *Micrometeorology in Agricultural Systems*, along with nine other monographs and over 330 referred publications.



Frank D. Keim Graduate Fellowship

The Frank D. Keim Graduate Fellowship was established to honor and recognize the unparalleled academic advising of the late Frank D. Keim, whose students and work have reached around the world. Criteria for the Fellowship include academic excellence, leadership activities, and future plans related to the agronomic sciences. The Fellowship is funded through contributions to the Agronomic Science Foundation and the selection process is administered by ASA.

Courtney M. Thomas

Courtney M. Thomas is a senior in her final semester at Colorado State University. She will graduate in December 2005 with a B.S. in Soil and Crop Sciences with a concentration in



Biotechnology, Plant Breeding, and Genetics. In January 2006, Thomas will begin working towards an M.S. at the University of Nebraska-Lincoln in Plant Breeding and Genetics. During her undergraduate studies at Colorado State, she has served as the president of the Agronomy Club and as a teaching assistant for the beginning Crops Laboratory. In 2003-2004 Thomas was elected president of the Students of Agronomy, Soils, and Environmental Sciences, which is the undergraduate organization of ASA-CSSA-SSSA.

Harry J. Larsen/Yara Memorial Scholarship

The Harry J. Larsen/Yara Memorial Scholarship is provided to a meritorious graduate student studying practical soil fertility and crop production. Funds for the scholarship are provided through the Agronomic Science Foundation by Yara America, Inc.; the scholarship is administered by ASA.

The scholarship was established in recognition of the 50th anniversary of Yara America and in memory of Harry J. Larsen, a former employee dedicated to agronomy and the economics of fertilizer management in commercial crop production.

Fabian Fernandez

Fabian Fernandez is a Ph.D. candidate in Soil Fertility and Plant Nutrition in the Department of Agronomy at Purdue University. He has also been a teaching assistant of several graduate and undergraduate courses. Mr. Fernandez earned his B.S. and M.S. from Brigham Young University. His research focuses on advancing the understanding of interactions between soil water status, soil K availability, soybean root and shoot development, and soybean K requirements in rain-fed production with stratified soil test K.

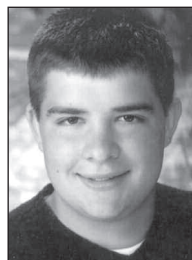


J. Fielding Reed Scholarship

The J. Fielding Reed Scholarship was established in recognition of Dr. Reed's life-long commitment to advancing the knowledge of agriculture through his work in soil science and natural resources and his passion for educating students. Funds for the scholarship are administered by the Agronomic Science Foundation and the selection process is administered by the ASA. The purpose of this scholarship is to honor an outstanding undergraduate senior pursuing a career in the soil or plant sciences.

Eric Riedeman

Eric Riedeman graduated from the University of Wisconsin at Platteville in May of 2005 with a degree in Soil and Crop Science. He is currently attending the University of Wisconsin-Madison in pursuit of his M.S. in Plant Breeding. Riedeman's Masters research is directed towards quantifying pest and disease resistance of sweet corn with early and late transitions of juvenile wax to adult wax. He has been actively involved with ASA and the Soil and Water Conservation Society.



Hank Beachell Future Leader Scholarship

The Hank Beachell Future Leader Scholarship was established in recognition of Dr. Beachell's commitment to advancing the knowledge of agriculture through his work in rice breeding and development. The purpose of this scholarship is to expand the agricultural knowledge of undergraduate students participating in activities that enhance their university studies. Funds for the scholarship are administered by the Agronomic Science Foundation and the award is administered by ASA.

Jason Haegele

Jason Haegele is a senior undergraduate student in the Departments of Agronomy and Agricultural and Biosystems Engineering at Iowa State University.



Throughout his college career, Haegele has held numerous leadership positions through his involvement in the Agronomy Club, Alpha Zeta, the College of Ag Student Council, Ag Ambassadors, and the International Agriculture Club. Additionally, he has had many work experiences in agronomy including internships with Pioneer Hi-Bred International Inc., the International Corn and Wheat Improvement Center, and Golden Harvest.

W.L. Nelson Award for Diagnosis of Yield-Limiting Factors

The Werner L. Nelson Award for Diagnosis of Yield-Limiting Factors recognizes outstanding performance in the development, acceptance, and/or implementation of diagnostic techniques and approaches in the field. Identification and correction of yield-limiting factors in crop production are emphasized. The principal criteria used in the selection process are the creativity and innovation of the nominee. The award is administered by ASA and supported through a contribution by the late Dr. Nelson to the Agronomic Science Foundation.

Alfred M. Blackmer

Alfred M. Blackmer is a Professor in the Agronomy Department at Iowa State University. His responsibilities focus on research and graduate-level teaching in soil fertility. Dr. Blackmer received his B.S. and M.S. degrees from the University of Massachusetts and his Ph.D. degree from Iowa State University. His program focuses on nitrogen management in soil-plant systems. He has developed several tools and programs that enable on-farm evaluation and improvement of nitrogen management practices during corn production.



Syngenta Crop Protection Recognition Award

Syngenta presents the Syngenta Crop Protection Recognition Award in recognition of outstanding service to one or more of the agronomic professions. A paid European trip to Syngenta facilities is included in the award.

Rajiv Khosla

Rajiv Khosla is an Associate Professor and Extension Specialist of Precision Agriculture at Colorado State University. He earned his B.S. from University of Allahabad, India, and M.S. and Ph.D. from Virginia Tech. Dr. Khosla has established a comprehensive research and extension program in Precision Agriculture. In addition, he has developed and directs a unique undergraduate degree program, "Applied Information Technology in Agriculture." Khosla has received numerous awards including the Outstanding Young Scientist Award 2003 and 2004 from Division S-6 and A.A.S.I.O. respectively. He was recognized with the highest teaching award in the College of Agriculture at CSU, the Charles N. Shepardson Teaching Award. Dr. Khosla actively participates in Society activities. He is an Associate Editor of the *Soil Science Society of America Journal* and is the President of Gamma Sigma Delta Honor Society of Agriculture at CSU.



Agronomic Awards

The Society recognizes the following individuals with the Agronomic Resident Education, Agronomic Extension Education, Agronomic Service, Carl Sprengel Agronomic Research, International Service in Agronomy, Environmental Quality Research, Agronomic Industry Awards for their outstanding contributions to agronomy through education, national and international service, and research. In addition, Monsanto presents the Professional Certification Award in recognition of outstanding certified professional.



These agronomic awards are given to productive, capable individuals known for original and significant research and for an outstanding ability to inspire in students and others with whom they associate the qualities of sound thinking, objectivity, integrity, and cooperativeness.

Agronomic Resident Education Award

Mary H. Wiedenhoef

Mary Wiedenhoef is an Associate Professor in Agronomy in the Agronomy Department at Iowa State University. Dr. Wiedenhoef earned her B.S. degree from Iowa State University and her M.S. and Ph.D. Degrees from Washington State University. Her major responsibility is in teaching courses in plant science, crop management, agroecology, experimental design, and sustainable agriculture. She has published in the areas of experiential learning, learner outcomes, learning communities, forage management, and manure management in forage production. Wiedenhoef has been active in American Society of America, serving as A-1 chair and on the Board of Directors.



B.S. and M.S. degrees from Iowa State University and his Ph.D. degree from the University of Georgia. His extension and applied research program improves crop productivity and enhances yield stability while protecting the environment. Wiebold has been an active supporter of the Certified Crop Advisor program and has served the Missouri Board in several capacities including board chair. He is Associate Editor of *Crop Science* and the ASA Board Representative for the C-3 division of CSSA.

Agronomic Service Award

Darrell W. Nelson

Darrell Nelson recently retired as Dean for Agricultural Research and Director of the agricultural experiment station at the University of Nebraska and is currently Professor Emeritus of Agronomy and Horticulture. He previously served as Head of the University of Nebraska Department of Agronomy and as Professor of Soil Science at Purdue University. His research focused on the impact of agricultural practices on environmental quality. Nelson earned his B.S. and M.S. degrees from the University of Illinois and his Ph.D. degree from Iowa State University. He is a former president of the American Society of Agronomy and the Soil Science Society of America.



Agronomic Extension Education Award

William J. Wiebold

Bill Wiebold is a Professor in the Division of Plant Sciences and the state extension specialist for soybean and corn at the University of Missouri. Dr. Wiebold earned his



Carl Sprengel Agronomic Research Award

Rattan Lal

Rattan Lal is a Professor of Soil Science in the School of Natural Resources, and Director of the Carbon Management and Sequestration Center at The Ohio State University. He is also the Faculty Director of the Clusters of Inter-Disciplinary Research on International Themes: Climate Change (CIRIT-CC). Lal earned his B.S. degree from Punjab Agricultural University, Ludhiana, India, M.S. degree from Indian Agricultural Research Institute, New Delhi, India, and Ph.D. from The Ohio State University. His research program focused on sustainable management of soil and water resources in the tropics between 1970 and 1987, and on soil carbon sequestration and climate change since 1988. Lal has been active in developing regional research networks on soil carbon sequestration, soil quality and agronomic productivity in Latin America, Central Asia and South Asia.



International Service in Agronomy Award

W. Ronnie Coffman

Ronnie Coffman is an International Professor of Plant Breeding at Cornell University. He also serves as Chair of the Department of Plant Breeding & Genetics and Director of International Programs for the College of Agriculture & Life Sciences. Coffman earned his B.S. and M.S. degrees from the University of Kentucky and his Ph.D. from Cornell University. His work has focused on crop improvement (especially rice) and international development. He is currently Co-Director of the Agricultural Biotechnology Support Project (ABSPII).



Environmental Quality Research Award

George A. O'Connor

George A. O'Connor is Professor of Environmental Soil Chemistry in the Soil and Water Science Department at the University of Florida. Dr. O'Connor earned his B.S. from the University of Massachusetts, and his M.S. and Ph.D. Degrees at Colorado State University. O'Connor's program focuses on the application of basic soil chemistry to issues associated with the land application of non-hazardous wastes (primarily biosolids) and the determination and control of the fate and transport of waste constituents.



Agronomic Industry Award

Kim R. Polizotto

Kim Polizotto is Chief Agronomist for the Potash Corporation of Saskatchewan (PotashCorp/PCS Sales U.S.). Dr. Polizotto earned his B.S. degree from Butler University, his M.S. from Indiana State University, and his Ph.D. from Purdue University. Polizotto provides agronomic and technical support and services about fertilizers to research personnel, fertilizer dealers and farmers around the world. He communicates research needs, develops projects and proposals, follows research progress, and helps interpret and communicate research findings from universities and the USDA to the agricultural industry.



Monsanto Professional Certification Service Award

Vivan M. Jennings

Vivan Jennings is the CEO of Asoyia LLC, a farmer-owned Iowa company producing a new trans-fat free soybean oil to the foodservice industry. Prior to joining Asoyia, Dr. Jennings spent 31 years with the U.S. Department of Agriculture's Cooperative States Research, Education, and Extension Service. He was deputy administrator for the agency in Washington, D.C., as well as an agricultural extension specialist in Iowa. Jennings served as associate director and associate dean of the Iowa State University Extension Service. His experience in international agricultural policy and trade, sustainable agriculture, organizational development, and strategic planning prepared him to lead in the start-up of Asoyia. Owned by 25 farmer-owners, the company's innovative marketing model provides for all of the company's growers to share in the profits. Asoyia's Ultra Low Lin Soybean Oil is currently marketing its first year's production to restaurants, distributors, food manufacturers and processors, and food service operations in the Midwest and throughout the world. Jennings received undergraduate and graduate degrees from Iowa State University. He operates a farm in Louisa County, Iowa, owns Elm Grove International, an agricultural advisory service, and is a certified professional agronomist.



ASA Fellows

The Society is continuing a time-honored tradition this year with the presentation of 28 individuals as Fellows. The Society has been electing outstanding members to the position of Fellow since 1924. Colleagues within the Society nominate worthy members and the ASA Committee on the Nomination of Fellows, with the ASA Past President acting as nonvoting chair, carefully rank the nominees. Final election is made by the ASA Executive Committee. Chosen for their professional achievements and meritorious service, the 2005 Fellows bring the total number to 1570.



Stephen H. Anderson

Stephen H. Anderson is a Professor of Soil Physics and Chair of the Department of Soil, Environmental and Atmospheric Sciences at the University of Missouri. He is also an Adjunct Professor in the Department of Agronomy. Dr. Anderson earned his B.S. degree in Agronomy from Brigham Young University and his M.S. and Ph.D. degrees in Soil Science from North Carolina State University. His research focuses on the use of x-ray computed tomography for quantifying soil physical properties and processes. He teaches Soil Physics and Advanced Soil Physics, and co-teaches both Watershed Modeling Using GIS and Advanced Turf Management. He recently completed serving 14 years as the Director of Graduate Studies for the department. Anderson has served on several ASA and SSSA committees, as editor of the SSSA Special Publication *Tomography of Soil-Water-Root Processes*, and as associate editor of the *Soil Science Society of America Journal*.



Rex N. Bernardo

Rex Bernardo is a professor and endowed chair in corn breeding and genetics in the Department of Agronomy and Plant Genetics, University of Minnesota. He obtained a B.S. degree in agriculture at the Visayas State College of Agriculture in the Philippines in 1984, and a Ph.D. degree in plant breeding and genetics at the University of Illinois at Urbana-Champaign in 1988. Dr. Bernardo's research focuses on the use of quantitative genetics theory and molecular markers to improve the efficiency of plant breeding methods, particularly for corn. Bernardo teaches a graduate course on the application of quantitative genetics to plant breeding and a graduate course on publishing in plant science journals. He is currently director of the Applied Plant Sciences graduate program at the University of Minnesota. Bernardo has served as associate editor and technical editor of *Crop Science*. He received the CSSA Young Crop Scientist Award in 1999 and is the incoming chair of CSSA Division C-1.



Sylvie M. Brouder

Sylvie Brouder is a Professor in Purdue University's Department of Agronomy, Crops, Soils, and Environmental Sciences. She also serves as an Extension Specialist of Plant Nutrition and Soil Fertility. Dr. Brouder earned her B.A. in Biology from Harvard University and her Ph.D. in Ecology from University of California-Davis. Her program focuses on crop nutrient balance with an emphasis on both crop productivity and environmental loss. Brouder serves as an associate editor for *Soil Science Society of America Journal*, has served as A-8 Division Chair, and has been active in many ASA-CSSA-SSSA affiliated professional opportunities.



Alan J. Franzluebbers

Alan Franzluebbers is a research ecologist with the USDA-Agricultural Research Service in Watkinsville, GA. He also holds an adjunct faculty position with the Department of Agronomy and Soils at Auburn University and has a pending application with the Department of Crop and Soil Sciences at the University of Georgia. Dr. Franzluebbers earned his B.S. and M.S. degrees from the University of Nebraska (1985, 1991) and his Ph.D. degree from Texas A&M University (1995). His research program focuses on soil organic matter management for development of sustainable agricultural systems. Conservation tillage, pasture management, and integrated crop-livestock production are topics of current interest. Franzluebbers has served on several ASA and SSSA committees, has been an ad-hoc reviewer for *Agronomy Journal* and *Journal of Environmental Quality*, has been an associate editor for the *Soil Science Society of America Journal*, has been on the editorial board of *Soil Biology & Biochemistry*, and is currently on the editorial board of *Renewable Agriculture and Food Systems* and serving as a joint Editor-in-Chief of *Soil and Tillage Research*. He has helped to organize three symposia at the Annual Meetings.



Roch E. Gaussoin

Roch Gaussoin is a Professor of Agronomy and Horticulture and Extension Turfgrass Specialist at the University of Nebraska-Lincoln. Dr. Gaussoin received his B.S. and M.S. degrees from New Mexico State University and his Ph.D. from Michigan State University. His research program focuses on turfgrass weed management and the management and construction of golf greens. He provides state-wide support of turfgrass extension programs and also serves as the departmental Extension Coordinator for Horticulture. Gaussoin served as an editor for the *International Turfgrass Research Society Journal* from 1998 to 2005. He currently serves as an Associate Editor for *Crop Science* and is the outgoing board representative and the in-coming Chair-Elect for the Turfgrass Science division of CSSA.



Satish C. Gupta

Satish Gupta is a Professor of Soil Physics and Soil Hydrology in the Department of Soil, Water, and Climate at the University of Minnesota. Dr. Gupta earned his B.Sc. and M.Sc. degrees from the Punjab Agricultural University in India and his Ph.D. degree from Utah State University. His research focus has been on water quality, landscape hydrology, unsaturated soil mechanics, soil structure, and waste utilization. Gupta teaches Contaminant Hydrology, Vadose Zone Hydrology, and Advance Soil Physics courses at the University of Minnesota. He has advised or co-advised 14 Ph.D. and 15 M.S. degree students and 13 post-doctoral research associates. He has authored or co-authored 135 research articles and 17 book chapters. Gupta is an associate editor of the *Journal of Environmental Quality* and has served as an associate editor of the *Soil Science Society of America Journal* and an editor-in-chief of the *Soil Tillage Research*. He is also an associate fellow of the supercomputing institute at the University of Minnesota.



Abul Kalam Samsul Huda

Samsul Huda is an associate professor, agroclimatologist/ modeler and Systems Agriculture Program Advisor at Hawkesbury campus of the University of Western Sydney (UWS), Australia. Dr. Huda earned his B. Sc (Agriculture) Honors degree from Visva-Bharati University, India; M.Sc (Ag) in Soils with Late Professor B.P. Ghildyal from G.B. Pant University of Agriculture and Technology, India; and Ph.D. in Agronomy with Professor Edward Runge from the University of Missouri-Columbia, USA. He is now at the forefront of practicing and promoting research-led teaching programs in agriculture with particular emphasis in agronomy, agroclimatic risk/ opportunity management, and modeling. His research program focuses on developing/adapting and using decision/discussion support tools, nationally and internationally, utilizing participative approaches to help growers make improved tactical and strategic farm decisions (crop production, nutrient and water applications, forward selling, crop disease management, reduced environmental pollution). Huda has an outstanding record of achievement in the field of climate related risk and opportunity analysis, modeling and participative decision making for food crop production, and water management as well as the scientific manager's role in national and international project leadership. In recent years through his leadership five major international workshops/conferences were organized.



Wayne H. Hudnall

Wayne H. Hudnall is the B.L. Allen Endowed Professor of Pedology in the Plant and Soil Science Department at Texas Tech University. Dr. Hudnall earned his B.S. and M.S. degrees from Texas Tech University and his Ph.D. from the University of Hawaii, Manoa. His principal areas of focus include soil genesis, classification, mineralogy, hydric soils, wetland delineation and agronomic requirements. He has been awarded research grants to study the remediation of drastically disturbed land; identification and delineation of hydric soils and wetlands; and carbon sequestration within the coastal marsh, natural occurring prairies within the Kisatchie National Forest and soil moisture and temperature regimes of southern Vertisols. Dr. Hudnall is the chairperson of the USDA-NRCS International Committee on Soil Moisture and Temperature Regimes (ICOMMOTR). Dr. Hudnall is a SSSA Fellow and board rep for Division S-9. He serves as a member of the ASA-CSSA-SSSA awards and fellows committee. Dr. Hudnall served as Editor-in-Chief for The Clay Minerals Society.



R. César Izaurralde

César Izaurralde is a Laboratory Fellow in the Joint Global Change Research Institute, a collaboration of the Pacific Northwest National Laboratory and the University of Maryland. He is also an Adjunct Professor in the Department of Geography and an Adjunct Associate Professor in the Department of Natural Resource Sciences and Landscape Architecture at the University of Maryland. Dr. Izaurralde earned his Agronomist Engineer degree from University of Córdoba (Argentina) and his M.Sc. and Ph.D. degrees from Kansas State University. Dr. Izaurralde's research focuses in three areas: 1) sustainable agriculture, 2) climate change impacts on agriculture and water resources and 3) climate change mitigation through soil carbon sequestration and



reductions in soil emissions of nitrous oxide. Dr. Izaurralde has been an active member of the American Society of Agronomy and the Soil Science Society of America since 1982. He is also an active member of the American Association for the Advancement of Science, the American Geophysical Union, and the American Society for Photogrammetry and Remote Sensing.

Drew J. Lyon

Drew Lyon is a Professor and the Extension Dryland Cropping Systems Specialist at the University of Nebraska Panhandle Research and Extension Center located in Scottsbluff. Dr. Lyon



earned his B.S. degree from the University of Illinois and his M.S. and Ph.D. degrees from the University of Nebraska-Lincoln. His research and Extension responsibilities include the investigation and development of resource efficient cropping systems for dryland crops that emphasize water management, weed control, and soil conservation. Lyon has served as an associate editor for *Agronomy Journal*, currently serves as the ASA-CSSA-SSSA liaison with the Weed Science Society of America, and has served in elected positions with the Crop Science Society of America and the Western Society of Weed Science. He has served as the chair of the W. L. Nelson Award for Diagnosis of Yield-Limiting Factors committee, a member of the Agronomic Extension Education Award committee, and as a judge for the ASA Educational Materials Awards Program.

Liwang Ma

Liwang Ma is a Soil Scientist with USDA-ARS, Great Plains Systems Research Unit in Fort Collins, Colorado. He earned his B. S. and M. S. degrees from Beijing Agricultural University



(now China Agricultural University) and his Ph.D. degree from Louisiana State University. His research interests on agricultural system modeling extend from water/chemical transport in soils,

to soil carbon and nitrogen dynamics and plant growth. He has contributed significantly to our understanding of pesticide-soil interactions by publishing a series of papers with Dr. H. M. Selim. Dr. Ma has contributed to and improved several components of the USDA-ARS Root Zone Water Quality Model (RZWQM), including soil water movement, pesticide transport, plant growth, and soil carbon/nitrogen dynamics. He is a key contact for RZWQM and is developing information databases and decision support systems (DSS) for conservation planning and water quality protection by combining experimental and model simulation results. Ma is an Associate Editor of *Soil Science Society of America Journal* (SSSAJ). He is a faculty affiliate of Colorado State University and a guest Research Professor of the Chinese Academy of Sciences.

Antonio P. Mallarino

Antonio P. Mallarino is Professor of Agronomy at Iowa State University. His work involves research, extension education, graduate student training, and some teaching. Dr. Mallarino initiated his professional career at the University of Uruguay and joined the Iowa State University Faculty in 1993. His research interests are in soil fertility and nutrient management. His efforts focus on improving the agronomic and environmental efficiency of phosphorus and potassium management through work on soil and plant-tissue testing, fertilizer and manure placement methods, nutrient management for conservation tillage, use of precision agriculture technologies, and new environmental phosphorus assessment tools. Mallarino has authored or coauthored 53 refereed journal articles or book chapters, 85 other technical papers, and 50 extension articles or publications. He serves or has served as Associate Editor of *Agronomy Journal* and *Soil Science Society of America Journal*, as Chair of the CSREES North-Central Regional Committee for Soil Testing and Plant Analysis (NCR-13), and as representative of SSSA to the North American Proficiency Testing Program.



earned his B.S. and Ph.D. from the University of Ankara, Turkey with the support from The Agricultural University in Wageningen, the Netherlands. His research focuses mainly in the area of pedology, land resources, carbon cycle, and sustainable development in arid zones. Mermut served as an associate editor and editor for *Canadian Journal of Soil Science*, *Clays and Clay Minerals*, and *Scientific World* and has been active in Canadian Society of Soil Science, SSSA, and many developing countries.

John J. Meisinger

John (Jack) Meisinger is a Soil Scientist in the Animal and Natural Resource Institute at the USDA Beltsville Agriculture Research Center. He also serves as Adjunct Associate Professor in Soil Science in the Department of Natural Resource Sciences at the University of Maryland College Park. His research has focused on the agricultural nitrogen cycle and on developing improved nitrogen management practices. Dr. Meisinger has served as an officer in the Northeast Branch of ASA, as Division Chairman in SSSA, and has been active in the Soil and Water Conservation Society of America.



earned his B.S. and Ph.D. from the University of Saskatchewan, Canada. Dr. Mermut

Ahmet R. Mermut

Ahmet Mermut is a Professor in the Department of Soil Science at Harran University in Turkey and Adjunct Professor in the Department of Soil Science at the University of



earned his B.S. and Ph.D. from the University of Ankara, Turkey with the support from The Agricultural University in Wageningen, the Netherlands. His research focuses mainly in the area of pedology, land resources, carbon cycle, and sustainable development in arid zones. Mermut served as an associate editor and editor for *Canadian Journal of Soil Science*, *Clays and Clay Minerals*, and *Scientific World* and has been active in Canadian Society of Soil Science, SSSA, and many developing countries.

Robert J. Mikkelsen

Robert Mikkelsen is currently the Western Director of the Potash & Phosphate Institute, located in Davis, CA. He earned his B.S. from Brigham Young University and a Ph.D. from the University of California-Riverside. Dr. Mikkelsen worked as a Research Scientist with the National Fertilizer Development Center of the Tennessee Valley Authority. He was responsible for nutrient management issues involving fertilizers and irrigation and received a patent for new fertilizer innovations. He joined the Soil Science Department faculty at North Carolina State University, where he was very active in graduate education and received the College Excellence in Teaching Award. His research at NCSU focused on managing fertilizers and manures in cropping systems to maximize nutrient efficiency and productivity. He now works with PPI throughout the Western U.S. and Canada to promote science-based education and research in the agricultural community and to train practitioners on appropriate nutrient use. He provides active leadership in many national professional societies. He has served on editorial boards of numerous international journals as well as Associate Editor for *Agronomy Journal* and the *Journal of Environmental Quality*. He currently serves as Associate Editor of the *Soil Science Society of America Journal*.



Phillip N. Miklas

Phil Miklas is a Research Geneticist with USDA-ARS at the Vegetable and Forage Crops Research Unit in Prosser, Washington. He also serves as an Adjunct Faculty Member in the Crop and Soil Sciences Department at Washington State University. Dr. Miklas earned his B.S. degree from Mesa State College, M.S. degree from Colorado State University, and his Ph.D. degree from North Dakota State University. His program develops enhanced germplasm lines and improved cultivars of dry edible bean. Research efforts focus prima-



rily on genetics of disease resistance. He serves as associate editor for *Crop Science* and is an active member of the Bean Genetics, Phaseolus Crop Germplasm, and Bean Improvement Cooperative Coordinating Committees. Miklas also serves as a Principal Investigator for the USAID Bean/Cowpea Collaborative Research Support Program in East and Southern Africa, and is an active participant in the USDA-ARS Sclerotinia Initiative.

Cheryl A. Palm

Cheryl Palm is a Senior Research Scientist at the Tropical Agricultural and Rural Environment Program, The Earth Institute, Columbia University. She also serves as a Senior Advisor to the UN Millennium Project. She received her B.S. and M.A. degrees in Zoology at the University of California-Davis and her Ph.D. in Soil Science at North Carolina State University. Dr. Palm's research focuses on the ecology of tropical agriculture and land use change in the tropics. She is also the Director of the Millennium Village Project of the Earth Institute and the UN Millennium Project. She has spent most of her research career working in the tropics in the humid forest zones of Latin America, Southeast Asia, and Africa. Most recently her research has focused on restoration of depleted soils of SubSaharan Africa. She is lead editor of the recently released book, *Slash and Burn: The Search for Alternatives*, Columbia University Press.



Srinivas C. Rao

Srinivas C. Rao is a Research Agronomist with the USDA-ARS, Grazinglands Research Laboratory, in El Reno, Oklahoma. Dr. Rao earned his B.S. degree from Andhra Pradesh Agricultural University, Hyderabad, India, M.S. from Texas A & M University, and his Ph.D. from Oklahoma State University. His research has contributed significantly to the understanding of nitrogen fertilizer management and tillage practices for cropping and grazing sys-



tems for continuous winter wheat in the southern Great Plains. Rao has introduced summer grain legumes in the southern Great Plains to provide high-quality forage year-round, to fill the forage deficit gaps, and reduce costs of storing and purchasing forage or concentrate feeds. Rao organized and chaired the symposia entitled "Food Security and Sustainable Agricultural Development for the 21st Century in India" for the 1998 annual meeting and "Challenges and Strategies of Dryland Agriculture into the Next Millennium" for the 2002 annual meeting. In addition to organizing each symposium, the symposium proceedings were published by the CSSA and ASA as a special publication, with Rao serving as proceedings editor. Rao also served as president of the Association of Agricultural Scientists of Indian Origin for 1998 to 2000.

K. Raja Reddy

K. Raja Reddy is a Research Professor and Plant Physiologist in the Plant and Soil Sciences Department at Mississippi State University. Dr. Reddy earned all his degrees from Sri Venkateswara University, Tirupati, Andhra Pradesh, India. His research focuses on environmental control of plant growth and development, crop simulation model development and applications and global change biology and remote sensing applications in natural resource management. In addition, he teaches graduate courses in the Plant and Soil Sciences Department in Environmental Plant Physiology and Global Change Biology. Reddy has been active in ASA, CSSA, Biological Systems Simulation Workgroup, Association of Agricultural Scientists of India Origin, and the Beltwide Cotton Conferences.



Kenneth S. Sajwan

Kenneth Sajwan is a Professor and Director of the Environmental Science Program in the Department of Natural Sciences and Mathematics at Savannah State University. Dr. Sajwan earned his B.S. in Agriculture and Animal Husbandry from G.B. Pant University of Agricultural and Technology, M.S. Degree in Agronomy from Jawaharlal Nehru Agricultural University in India, and his Ph.D. in Agronomy from Colorado State University. His teaching and research programs focus on the phytoremediation of toxic elements from contaminated soils; sediments and waste streams; and co-disposal of coal combustion byproducts with biosolids such as sewage sludge and animal manure as soil amendments. Sajwan serves as an associate editor for the *Journal of Environmental Monitoring and Restoration*, and has been actively serving the ASA as a member of the Membership and Society Identity Committee.



John F Shanahan

John Shanahan is a Research Agronomist in the Soil and Water Conservation Research Unit with USDA-ARS in Lincoln, Nebraska. Dr. Shanahan earned his B.S. degree from University of Nebraska and his M.S. and Ph.D. from Colorado State University. His research program focuses on developing site-specific management tools for more efficient application of crop production inputs. Shanahan has served as associate editor for *Agronomy Journal* and *Journal of Precision Ag*, and has been active in ASA, North Central Extension-Industry, Great Plains Soil Fertility, and International Precision Ag Conferences.



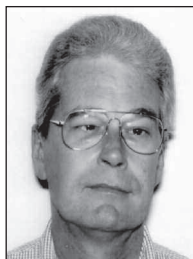
Charles A. Shapiro

Charles Shapiro is a Professor in the Agronomy and Horticulture Department at the University of Nebraska-Lincoln. He serves as Extension Specialist in Crop Nutrition and is located at the Haskell Agricultural Laboratory. Dr. Shapiro earned his B.S. at Cornell University and his M.S. and Ph.D. at the University of Nebraska. His program focuses mainly on nitrogen and manure management with an emphasis on water quality. Dr. Shapiro serves as Division S-4 chair and represents ARCPACS on the ASA board.



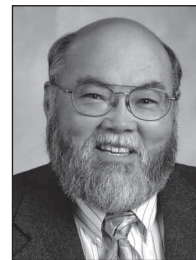
Thomas J. Smyth

Jot Smyth is a Professor in the Soil Science Department at North Carolina State University. He earned his B.S. from Texas Tech University and his M.S. and Ph.D. from North Carolina State University. His program focuses on increasing crop production and efficiency in tropical soils through improved soil nutrient management. Dr. Smyth has actively participated in the Soil Management Collaborative Research Support Program since its inception in 1981 as a joint effort among U.S. universities, developing countries and the U.S. Agency for International Development.



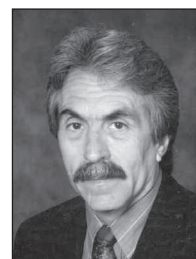
Don L. Tanaka

Donald L. Tanaka is a Soil Scientist at the USDA-ARS Northern Great Plains Research Laboratory in Mandan, ND. He earned his B.S. degree from Chadron State College and his M.S. and Ph.D. from the University of Nebraska. Dr. Tanaka's research focuses on developing long-term dryland integrated agricultural systems for the Northern Great Plains. He served as associate editor for *Agronomy Journal*, on the Soil Science Applied Research Awards Committee and on the Research Awards Committee for SSSA.



Bertrand D. Tanner

Bertrand D. Tanner is a vice-president and micro-meteorologist at Campbell Scientific Inc., Logan, UT and has been a corporate director since 1980. He received his B.S. at the University of Wisconsin-Madison and his M.S. at Utah State University. Since joining the company in 1978, he has been involved with environmental instrumentation and measurement practices, and with supporting applications in a variety of research disciplines. Early emphasis included the development of automated weather stations, widely deployed today in networks serving both agricultural research and producers. He has authored two invited chapters on automated weather stations. A primary focus has been the development and field operation of sensors for measuring the surface-atmosphere exchange of heat, water vapor, CO₂ and other trace gases. He is a Certified Consulting Meteorologist with the American Meteorological Society (AMS) and is a member of the Meteorology Subcommittee of the American Society for Testing and Materials. He served six years on the Council of Agricultural Science and Technology (CAST) Board of Directors as the AMS representative.



FAQ

Frequently Asked Questions

Salt Palace Convention Center (SPCC)
Salt Lake City, UT

Who? What? When? Where?

Business Center

Upper Level (SPCC)

Career Placement Service

Ballroom AC, Lower Level (SPCC)

Communications Center

Room 250A, Upper Level (SPCC)
*(practice oral presentations, check e-mail,
view abstracts)*

Room 250B, Upper Level
(Upload abstracts)

Emergency/First Aid

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Rite-Aid Pharmacy, 801-521-0583
72 South Main

Expo '05

Exhibit Hall ABC, Lower Level (SPCC)

Food Function Tickets

All tickets are sold in Registration.
Special meal requests go to Registration
48 hours before the event.
East Lobby, Upper Level (SPCC)

Housing List

Available at Registration

Member Services Booth

Adjacent to East Lobby,
Upper Level (SPCC)

Message Center

Adjacent to East Lobby
Upper Level (SPCC)

Poster Session

Exhibit Halls ABC, Lower Level (SPCC)

Registration

East Lobby, Upper Level (SPCC)

Tour Departure

South Lobby Entrance (SPCC)
Lower Level

Velcro

On-site Registration
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