

Annual Reports

S - Div. S-6, Soil and Water Management and Conservation Officers (S011.06)

2007 Annual Report

SSSA Division S-6
Soil & Water Management & Conservation
Annual Report 2007

2007 ANNUAL MEETINGS

The Division of Soil & Water Management and Conservation continues to make a significant contribution to the success of the annual meetings. The Division was the lead sponsor on 24 sessions that included two hundred nineteen papers (219) for the 2007 meetings in New Orleans. Of those 219 papers, 131 were poster papers and 88 were oral papers, which included 21 presentations by invited speakers. In addition, Division S6 joined other divisions in three symposiums that attracted an additional 89 papers, which included 49 oral and 40 poster presentations. This year, each division was limited to two (2) symposia. In addition, S-6 takes a lead role for SSSA in developing the SSSA-SWCS Joint Symposium, which is a society level symposium. We also sponsor the Howard M. Taylor Lectureship.

Symposium 1: "Soil Erosion Processes and Modeling: Past, Present, and Future"

The special symposium titled 'Soil Erosion Processes and Modeling: Past, Present, and Future' will review the achievements of soil erosion science during the last several decades and explore what developments the future might bring. Soil erosion processes and modeling for natural and anthropogenic forces will be explored through invited and volunteered oral presentations as well as a poster session.

Time: Orals 9:25 AM – 3:40 PM, Tuesday, November 6th; Poster session Tuesday, November 6th 4:00-6:00 PM; and orals 9:25 AM – 11:55 AM, Wednesday, November 7th

Place: Orals in Conv. Center, Room 219, Second Floor and Posters in Exhibit Hall A

Organizers: R. Scott Van Pelt and Ted M. Zobeck

Symposium 2: "Major Advances in Soil and Water Conservation: What Now?"

Symposium speakers will address Major Advances in Soil and Water Conservation from the perspective of several geographic regions of the United States. The session will include invited and volunteered papers.

Time: Orals 1:00 PM – 4:55 PM, Tuesday, November 6th; Poster session Tuesday, 4:00-6:00 PM, Wednesday November 7th; and orals 9:25 AM – 10:25 AM, Thursday, November 8th

Place: Orals in Conv. Center, Room 217 (Wednesday) and Room 222 (Thursday), Second Floor and Posters in Exhibit Hall A

Organizers: William Schillinger and Ted M. Zobeck

Howard Taylor Lectureship

Dr. Peter Gregory, Chief Executive and Institute Director of the Scottish Crop Research Institute will present "Routes to Roots: Exploring the Growth and Activity of Roots in Soils" as the Howard M. Taylor Memorial Lecturer on Monday morning at 9:30 am in Room 224 of the Convention Center. Dr. Gregory's talk will contrast soil excavation methods of information gathering about root systems with newer noninvasive techniques, analogous to human body imaging, used to visualize roots. He will also cover some new techniques for investigating the competition for soil phosphate between roots and microbes. "Roots also modify the soil environment biologically, chemically, and physically to enhance plant growth," Gregory says. "Some pests take advantage of these changes to identify host plants." Gregory contributes to a range of research activities from root imaging to determining the impact of global environmental change on food systems. He studies the effects of Sitona, a weevil pest, on the production of grass and clover crops. Gregory is also involved in the development of a microfocus X-ray that uses tomography, imaging by sections, to create a picture of roots and soils. Formerly the leader of the international research project GECAFS, Gregory is currently a member of the group that studies the effects of global environmental change on food systems and human societies as well as the adaptations of food systems in response to global change. Prior to joining the Scottish Crop Research Institute, Gregory taught in the University of Reading's Soil Science Department. He served as Dean of the Faculty of Agriculture and Food for two years and then as Pro-Vice-Chancellor for Research and Enterprise from 1998 onwards. He also spent six years working as a research scientist at CSIRO in Perth, Australia. The Howard M. Taylor Memorial Lecture honors the contributions of Dr. Taylor to the profession and is administered by SSSA. (Copied from CSA News)

Abstract: "Routes to Roots: Exploring the Growth and Activity of Roots in Soils"

Roots are an essential component of soil biology, but their interactions with soils and other organisms are still poorly understood not least because they live in a complex, opaque medium. Excavation of roots, while time-consuming, still has practical value as a means of observing root types, their spatial distributions, and their location with respect to soil features. Recent measurements with field-grown potatoes demonstrate the variety of forms that exist and hint at how the efficiency of resource capture by the crop might be improved. Tomographic imaging of the soil-root interface is a new and developing technique with the potential to quantify both the roots and the biophysical complexity at the root/soil interface. For example, a study with five barley genotypes showed that while the overall architecture, as measured by root growth angles, varied significantly between them, these differences were consistently detected using x-ray μ CT, gel chambers and soil sacs. Single images can be analysed to give information about, for example, the angles of lateral root branching or the position of a pathogen relative to the host, but it is the ability to repeatedly image organisms non-invasively that allows the dynamics of root-soil interactions to be studied for the first time. Current studies using wheat and barley containing different dwarfing genes will be discussed. Finally, the ability to genetically modify plants to give specified properties at the root surface is opening up new means to study chemical changes at the root/soil interface. Plants modified to produce phytase provide new insights into the processes of soil organic P transformations and, under appropriate conditions, may also enhance P uptake and yield. Combining appropriate root architecture with root surface properties opens up exciting possibilities for sustainable farming practices.

Time: 9:30 AM - 10:45 AM, Monday, November 5th

Place: Conv. Center, Room 224, Second Floor

Organizers: Bobbie McMichael and Tom Kaspar

2007 Lectureship Committee: Bobbie McMichael, Diane Stott, Tom Kaspar, Ken Van Rees, Kelly Morgan, Andres Quincke, and Ted Zobeck.

SSSA – SWCS Joint Symposium

"Implications of Bioenergy Production for Agricultural Development"

Time: 12:55 PM – 3:45 PM, Monday, November 5th

Place: Conv. Center, Room R02, Second Floor

Organizing Committee: Warren Busscher, Jorge Delgado, Mike Lindstrom, Jeff Vonk

S06 Listserv

To unsubscribe from s06 Listserv: Send an email to Request-s06@acs-net.soils.org and put "unsubscribe" (just the word without quotes) in the Body of the message. Please do not type anything else in the Subject line or Body of the message. Also, be sure that your default signature is not included in the message.

To subscribe to the S06 Listserv: Send an email to Request-s06@acs-net.soils.org and put "subscribe" (just the word without quotes) in the body of the message. Please do not type anything else in the Subject line or Body of the message. Also, be sure that your default signature is not included in the message.

DIVISION S-6 CONTACT INFORMATION

Chair (2007), Ted Zobeck tzobeck@lbk.ars.usda.gov

Chair-Elect (Chair, 2008), Brian Wienhold bwienhold1@unl.edu

Incoming Chair-Elect (Chair, 2009), Neil Hansen, neil.hansen@colostate.edu

Past Chair (Chair, 2006), Tom Kaspar, kaspar@nstl.gov

Board Representative (2006-2008), Diane Stott destott@purdue.edu

SSSA Journal S-6 Technical Editor, Seth Dabney sdabney@ars.usda.gov

SSSA Rapid Response Contact, Div S-06 (2007), Diane Stott destott@purdue.edu

S-6 COMMITTEES

2008 S-6 Program (Houston, tx, oct. 5-9)

SSSA Division S-6 2008 Chair, Brian Weinhold

Send Brian ideas for 2008 symposia and special sessions. Better yet, volunteer to organize a symposium for the next meeting. It's a great way to become involved. Topics will be discussed during the S-6 Division Business Meeting. Currently, we are allowed two symposia at the annual meeting. We can also organize non-funded oral or poster sessions around specific themes.

2008 Nominating Committee

Chair, 2008 (2010) Ted Zobeck tzobeck@lbk.ars.usda.gov

Member (2009) Tom Kaspar, kaspar@nstl.gov

Member (2008) Diane Stott, destott@purdue.edu

The internet run-off election for Chair-Elect and Board Rep (2009-2011) closed on Nov. 1, 2007 at 4:00 PM CST. The Run-off election was needed to narrow the field down to two candidates for each office. The results of the run-off election will be announced at the business meeting. Since only members of our Division vote for the position of SWCS Liaison (2009-2011), we will accept nominations until the business meeting for this office. We have four candidates for the office of Chair-Elect: R. Louis Baumhardt, Clark J. Gantzer, Harry H. Schomberg, and Brenton Sharratt. We have four candidates for the office of Board Rep (2009-2011): Tom Kaspar, Martin Locke, Jeff Strock, and Harold van Es. Please vote for one candidate for each office at: <https://www.soils.org/divisions/s06/elections/index.php>

We also solicited names for a new Liaison to the Soil and Water Conservation Society (SWCS). Warren Busscher's term expires at the end of the Business meeting in 2008 and we need to refill this 3-year (2009-2011) position. The duties of the Liaison are to coordinate with the Chair and Past-Chair all joint activities between S6 and SWCS, including joint symposia at SSSA Annual Meetings and SWCS Annual Meetings. Since this is not a society-wide election, we will also take nominations at the business meeting.

2008 SSSA – SWCS Joint Symposium

Chair, Warren Busscher, busscher@florence.ars.usda.gov

Member, Jorge Delgado, jorge.delgado@ars.usda.gov

Member, SWCS Member, lindstrom@morris.ars.usda.gov

Member, SWCS Board Rep, jeff.vonk@dnr.state.ia.us

2008 Howard M. Taylor Lectureship Committee S711.13

The membership of this committee is appointed in part by the SSSA President-Elect, but contact any of the following for information, interest in serving on the committee in the future, or for suggestions for next year's selection for lecturer.

2008 Chair, Ted Zobeck tzobeck@lbk.ars.usda.gov

2008 Chair-Elect, Brian Wienhold bwienhold1@unl.edu

2008 Member, Diane Stott, destott@purdue.edu

2008 Member, Bobbie McMichael, bmc michael@lbk.ars.usda.gov

2008 Member, Bob Stewart, bstewart@mail.wtamu.edu

2008 Member, Kelly Morgan, ktm@ifas.ufl.edu

2008 Member, Tom Kaspar, kaspar@nstl.gov

2008 Young Scholar Award Committee

Chair, Ted Zobeck tzobeck@lbk.ars.usda.gov

Member, Tom Kaspar, kaspar@nstl.gov

Member, Diane Stott, destott@purdue.edu

2008 Graduate Student Award

Chair, Clark Gantzer, GantzerC@missouri.edu

Member, Zhi (Luke) Wang, zwang@csufresno.edu
Member, Tom Schumacher, Thomas_Schumacher@sdstate.edu

BUSINESS MEETING AGENDA

Welcome – Ted Zobeck, 2007 S6 Chair

Awards

S6 Young Scholar of the Year Award: Presented by Tom Kaspar
S6 Graduate Student Award: Presented by Clark Gantzer
S6 Undergraduate Student Speech Contest Award: Presented by Neil Hansen

Board of Directors Report - Diane Stott, S6 Board Rep

SWCS Liaison Report – Warren Busscher

Nominations/Election for SWCS Liaison 2009-2011

Division S06 Technical Editor's Comments – Seth Dabney

Best Paper Award Discussion – Jeff Strock

2007 Symposia Discussion – Brian Weinhold, S6 Chair-Elect

General Business, Announcements, and Discussion
Soil and Water Scholarship Fund – Jerry Lemunyon

Introduction of the New Chair and Chair-Elect

Adjourn

ANNUAL BUSINESS MEETING MINUTES

Monday, November 5, 2007, 11:00 a.m.-12:00 p.m.
New Orleans Convention Center, Room 224

The meeting was called to order by the 2007 S6 Chair, Ted Zobeck

Ted welcomed those in attendance and gave a brief presentation of division highlights during the previous year. Included in this overview was a report that S-6 was the lead sponsor on 24 sessions that included two hundred nineteen papers (219) for the 2007 meetings in New Orleans. Of those 219 papers, 131 were poster papers and 88 were oral papers, which included 21 presentations by invited speakers. In addition, Division S6 joined other divisions in three symposiums that attracted an additional 89 papers, which included 49 oral and 40 poster presentations.

A motion was made by member, Alvin Smucker, to approve the minutes from the 2006 annual meetings. This motion was seconded by member, Clark Gantzer. The motion carried with a unanimous vote.

Awards

S-6 Young scholar of the year award: Presented by Tom Kaspar and representing the committee of Tom Kaspar (Chair), Diane Stott, Jorge Delgado.

2007 Recipient: Christian Renschler

The S06 Young Scholar Award recognizes scientists who have made an outstanding contribution in Soil and Water Management and Conservation within seven years of completing their Ph.D. The 2007 Young Scholar for Division S06 is Dr. Christian Renschler.

Dr. Renschler received his Ph.D. in 2000 at the University of Bonn, in Bonn, Germany, and was recently promoted to Associate Professor with tenure at the University at Buffalo, NY. He has authored or co-authored 26 refereed publications. He has been PI or co-PI on grants approaching \$770,000. His research has focused on geo-spatial modeling of natural resources, hydrology, and erosion. As part of his work, Dr. Renschler has developed and supported a geo-spatial interface for WEPP, called GeoWEPP, for use with ArcGIS and ArcView. Dr. Renschler's GeoWEPP is being widely used by scientists and land managers in ARS, USDI, BLM, USDA Forest Service, and other land management agencies for land use planning, environmental analysis, and management practice evaluation. As a result, Dr. Renschler has had a major impact on the management and protection of public lands and water resources.

S-6 Graduate Student Award: Presented by Clark Gantzer and representing the committee of Clark Gantzer (Chair), Zhi (Luke) Wang, and Tom Schumacher.

2007 Recipient: Pingping Jiang

The S6 Graduate Student Award is presented each year to a graduate student whose thesis research and graduate responsibilities utilize creative approaches to gain understanding and develop solutions for soil and water conservation and management problems. The recipient's research must be in soil and water management and conservation. The \$350 award is designed to assist the student with travel expenses associated with attending the annual SSSA meeting. The recipient will be recognized at the Division S6 Business Meeting.

The 2007 awardee is Pingping Jiang, a graduate student at the University of Missouri under the advisement of Drs. Newell Kitchen and Steve Anderson. In May 2007, she graduated with her Ph.D. in environmental soil science with an emphasis in applied soil physics. Her doctoral research was focused on soil hydraulic properties as affected by conservation management and landscape position, and estimating plant available water capacity for claypan soil landscapes using apparent soil electrical conductivity. Her research was focused on site-specific management regarding water use and management. Her research was also useful in providing input information for hydrologic models designed to work at the

landscape and watershed scales.

S-6 Undergraduate Student Speech Contest Award: Presented by Neil Hansen.

2007 Recipient: Amber Beutler

Division S-6 sponsored an undergraduate student speech contest in conjunction with the A-01 student speech contest at the annual international meetings in New Orleans on Sunday, November 4, 2007. Nine students competed in the preliminary round and six of the nine contestants advanced to the finals. Two of the six students in the finals addressed topics relevant to the goals and ideals of division S-6. The contest winner was Amber Beutler, University of Florida. Amber's speech addressed "Agriculture and conservation: A critical alliance now and in the future." Amber was presented a plaque at the student awards banquet, an award of \$200, and a one year membership in the Soil and Water Conservation Society. Division S-6 volunteer judges were: Diane Stott, Steve Green, James Cropper, Sheryl Kunickis, and Neil Hansen.

Runoff Election Announcement - Ted Zobeck

Nominations were received and preliminary elections were held in October for the positions of Chair Elect and Board Representative for the division. Based on results of the preliminary elections, a runoff election will be held among the following finalists.

Div S6 Chair-Elect: Harry Schomberg and R. Louis Baumhardt

Div S6 Board Rep: Tom Kaspar and Harold Van Es

2007 SSSA DIVISION S6 BOARD REPORT

Reporting: Diane Stott, S-6 Board of Directors Representative

Journals

For all papers submitted to SSSA Journal on or after January 1, 2008, the corresponding author of an accepted manuscript, at the time of acceptance, must be a member of SSSA in order to receive the member rate on publication charges.

ACCESS

Alliance of Crop, Soil and Environmental Science Societies is to be the supporting organization for the SSSA, ASA, and CSSA. This organization is in the process of being set up and obtaining IRS approval. Operations will begin to shift to ACSESS during 2008. Watch the CSA news for further developments

Budget Summary

Publications: Budgeted revenues are lower than last year primarily due to declines in library subscriptions. New international agreements that are currently being negotiated should help the bottom line for SSSAJ and JEQ.

Meetings: The 2008 Annual Meetings budget shows a lower net income than recent meetings due to uncertainty regarding the joint meetings with the Geological Society of America (GSA). Currently it appears that the meetings will have a net income greater than the budgeted amount.

Member Services: Headquarters staff have implemented several changes in operations that have resulted in improved efficiencies which will reduce member services costs. Publication costs for CSA News have also been reduced. Also, within CSA News there is a reallocation due to sharing ad revenue with Career Placement.

Web Presence: Input from Task Forces and members indicate that SSSA should invest more in our web presence. The budget reflects this with regard to an increase in funding for educational programming which includes both web-related and other education-related activities.

Reallocation of Recurring Expenses: As the reorganization of the three societies into more independent societies has progressed, there have been several reallocations of member services expenses to more closely reflect the actual expenses incurred by the societies. This has increased SSSA member service expenses in areas such as Science Policy, Educational Programming, and overhead allocation.

NAPT Program: This program showing a significant deficit in the 2008 budget based on current participation and existing contracts for program services. This will be addressed by the SSSA board and the NAPT committee.

Smithsonian Exhibit: This year's SSSA budget includes a significant one-time expense related to activities surrounding the opening of the Smithsonian Soils Exhibit in July of 2008. Fund raising for this exhibit continues and could offset some of this expense currently in the 2008 budget.

CPSS Program: Funding has been approved to support pilot professional soil scientist licensing programs in Florida and Ohio.

New Information Technology Updates at Headquarters

The IT structure at headquarters has undergone a major upgrade over the last several years. This was a very significant investment by the Tri-Societies that is resulting in improved member services and greater efficiency in the operations of the societies. However, the costs for this upgrade must now be depreciated over the next three years. This is a major new expense in the 2008 budget.

Bottom Line

The 2008 budget for the SSSA is showing a \$194,493 deficit. However, without the one-time expenses for the Smithsonian Soils Exhibit, increased funding for website and educational resources, the pilot program for soil scientist licensing, and the short-term (3 year) depreciation costs for the new IT infrastructure the budget would be solidly in the black. The board of directors recognize the special circumstances resulting in this budget deficit and has determined that society reserves should be used to cover the deficit. The society's invested reserves are very healthy and even with this deficit, are estimated to be over \$2.1 million at the end of the 2008 budget year.

Respectively Submitted,

Diane E. Stott

S-6 Representative, SSSA Board of Directors

destott@purdue.edu

Additional Comments by Gary Peterson

Gary Peterson, SSSA 2007 Program Chair, gave an overview of Alliance of Crop, Soil and Environmental Science Societies (ACSESS). ACSESS is a jointly funded business office.

SWCS LIAISON REPORT

Reporting: Warren Busscher

The 2007 Joint Symposium

The 2007 joint symposium of SWCS and SSSA was titled "Implications of Bioenergy Production for Agricultural Development." It was the 8th in the series.

The symposium was held on Tuesday July 24th at the SWCS Annual Conference in Tampa, Florida. It followed a plenary session on the same subject. The talks at the SWCS meeting were:

"Bioenergy: Implication for Soil and Water Conservation" by Rick M. Cruse from Iowa State University

"Energy from Livestock Waste" by Patrick G. Hunt, USDA-ARS, Florence, SC

"The impact of improved genetics and traits on corn yield" by Mike Edgerton, Monsanto, St. Louis, MO

The same talks were given at the New Orleans symposium at SSSA with the addition of:

"Economic Opportunities and Challenges for Agriculture from the Expansion of the Demand for Biofuels" by Daniel G De La Torre Ugarte, Director, Agricultural Policy Analysis Center, University of Tennessee

"Interactions of Cropping History and Residue Management Determine Acceptable Limits for Corn Stover Biofuel Harvest" by Keith Paustian of Colorado State University

Soil Research Award: This was the first year that SWCS gave out the Conservation Research Award that we developed. The winners of the Award were Doug Karlen, Jorge Delgado, and Don Tanaka.

For Next Year: The committee is developing the 9th joint symposium continuing its emphasis on 'Energy and Agriculture'. For SWCS, the symposium is being developed along with the main program committee.

Nominations/Election for SWCS Liaison 2009-2011

Nominations were open on the floor for the SWCS Liaison for 2009-2011.

Jorge Delgado was nominated by Warren Busscher and was seconded by Scott Van Pelt

Scott Van Pelt was nominated by Brian Wienhold and was seconded by Steve Merrill

Doug Karlen made a motion to close nominations and seconded by Diane Stott

DIVISION S06 TECHNICAL EDITOR'S COMMENTS

S-6 had 12 Associate Editors in 2007: April Leytem, Hangsheng (Henry) Lin, Humberto Blanco, John Zhang, Kristofor Brye, Louis Baumhardt, Neil Hansen, Terry Howell, Tom Kaspar, Tom Schumacher, Tris West, and Bill Schillinger.

In 2008, Baumhardt, Schumacher, and Zhang will be reappointed for second terms and Guy Levy will become an AE. Seth Dabney will also be reappointed for a second term as Technical Editor. David Myrold will be appointed as the SSSAJ Editor, replacing Richard Mulvaney, who is retiring from the board.

From July 2006 through June 2007, S-6 received 90 manuscripts out of a total of 441 for the SSSAJ. During that period S-6 accepted 49 and published 38.

Subscriptions to the journal declined 4% last year. There has been some conversion from print to electronic subscriptions, but more than 50% are still print subscriptions.

The redesign of the Journal and in-house publishing has resulted in a reduction of about 1 page per article. Average paper length was 8.4 pages for research articles and 4.3 pages for notes. Publication costs structure is being changed from \$650+ per article to \$80+ per page (member cost). Additional costs result from table and figure setup.

A proposal is being discussed to offer "Open Access" (immediate, unlimited on-line access) for an additional cost, proposed to be \$800 per article. This cost would cover all production costs if subscriptions were reduced due to Open Access. Currently, articles are available to non-subscribers only 18 months after publication.

Authors should not post .pdf files on their own web site, but rather active links to the highwire site where the Journal is hosted (this increases visibility of the Journal).

The entire SSSAJ archive will be available on-line to subscribers by the end of January.

The "Special Topics" that were instituted to invite submissions in selected areas of research will be eliminated at the end of 2007 because few papers were submitted and they frequently did not review as well.

There is ongoing discussion about restructuring the editorial board to reduce review turn-around time. Some AEs have difficulty finding willing reviewers who complete reviews in a timely fashion.

The opportunity still exists for volunteer and invited review papers, but to date very few reviews have been completed. The Technical Editor invites suggestions for S-6 review topics.

BEST PAPER AWARD DISCUSSION

Reporting: Diane Stott

Diane reported representing the ad-hoc committee's development of guidelines for the Div. S-6 best paper award. A document describing the procedure was presented as well as a scoring sheet. A motion was made by Doug Karlen and seconded by Scott Van Pelt to accept the developed criteria and to reinstitute the best paper award for 2008.

2008 SYMPOSIA DISCUSSION

Reporting: Brian Wienhold,

Brian outlined that the planning process would be different in 2008 as a result of the joint US Geological Society meeting jointly with SSSA. Brian was to attend a joint planning meeting later the same day and would report back on the process.

OTHER BUSINESS AND ANNOUNCEMENTS

Soil and Water Scholarship Fund – Discussion by Jerry Lemunyon

Jerry requested the support of Div S06 of a new scholarship designed to attract young people to soil and water conservation professions and careers. The request was for S06 to appoint a chair and committee to establish guidelines and selection criteria. Jerry Lemunyon was appointed as the chair and will solicit a committee to assist him.

Steve Green was appointed as the S06 Undergraduate Speech Contest Chair.

Introduction of New Chair and Chair-Elect

Tom Kaspar steps down as Past Chair.

Ted Zobeck moves from Division Chair to Past Chair.

Brian Wienhold moves from Chair-Elect to Division Chair.

Neil Hansen becomes Chair-Elect.

Adjourn

Items Requiring Board Attention:**Members of the Committee:**

Brian Wienhold (Chair, Div. S-6)

Neil Hansen (Chair-Elect, Div. S-6)

Ted Zobeck (Past Chair, Div. S-6)

Diane Stott (Div. S-6 Bd. Rep.)

Prepared By:

Ted Zobeck