



ISTRO INFO

**A Publication of the
International Soil Tillage Research Organization**

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Dr. Douglas L. Karlen
Assistant Secretary General, ISTRO
2150 Pammel Dr.
Ames, IA USA 50011

Table of Contents

<i>ISTRO INFO – SUMMER 2005</i>	3
NEW MEMBER REGISTRATION PROCESS	4
NORDIC TILLAGE CONFERENCE – MAY 2006	4
17TH ISTRO CONFERENCE UPDATE	6
SCHOLARSHIPS FOR YOUNG RESEARCHERS	6
SOIL & TILLAGE IMPACT FACTOR INCREASES SIGNIFICANTLY	7
18TH WORLD CONGRESS OF SOIL SCIENCE	8
CZECH REPUBLIC CONFERENCE HIGHLIGHTS	8
NEWS FROM THE IUSS	9
NEW BOOKS FROM THE SOIL SCIENCE SOCIETY OF AMERICA	10
SOIL QUALITY NEWSLETTER AVAILABLE	10
FINAL COMMENTS	10

ISTRO INFO – SUMMER 2005

Greetings to all ISTRO members from the Midwestern U.S.! The end of summer in the northern hemisphere is rapidly approaching and harvest of silage corn and some grain has already begun. Variable weather patterns throughout the Midwest have once again influenced crop performance with some areas suffering drought stress and other sites having very good yield potential. We also extend our sympathy to those who suffered losses due to hurricane Katrina along the U.S. Gulf Coast.

An important event with regard to ISTRO members is the launch of our new website http://www.alterra-research.nl/pls/portal30/docs/FOLDER/ISTRO/ISTRO_II/P_FRAME.HTM. This has been coordinated by our Secretary General Jan J.H. van den Akker. Be sure to take a look at the new site and send Jan any comments you may have. Please note that the site has plenty of space for announcing future Branch or Working Group meetings, publications, news items, and other website linkages that may be of interest to other ISTRO members. Please feel free to send these types of announcements to Jan and to me so that they can also be incorporated into ISTRO INFO.

As always, please continue to circulate ISTRO-INFO to non-members in your various countries, institutions and organizations. Be sure to bring their attention to the new membership application procedures describe below and to invite them to join our organization. Finally, if you have any type of information including publications, new books, or reference materials that you want your ISTRO colleagues to know about, or if you have questions regarding any aspect of soil and tillage research or technology transfer, please submit them to me at any time. I plan to continue developing quarterly issues of this newsletter so that it will provide an opportunity to advertise up-coming programs and to send reports (e.g. the Czech Republic Conference) so that others will know what happened and what their colleagues are doing in other ISTRO Branches.

Doug Karlen
Assistant Secretary General

NEW MEMBER REGISTRATION PROCESS

A new feature associated with the revised ISTRO website is the ability to register for membership on-line. To join ISTRO yourself or if you are helping a colleague do so, go to the new website (given below) and take the following actions:

http://www.alterra-research.nl/pls/portal30/docs/FOLDER/ISTRO/ISTRO_II/P_FRAME.HTM.

1. Please read and follow the instructions **before** filling out the forms.
2. Fill out the on-line membership application form.
3. Fill out the *.pdf* payment form that can be downloaded at the end of the on-line membership application form. This form can be filled out on your computer if you the Acrobat *pdf* reader version 7.0 or higher installed. If you don't have the Acrobat reader installed, you can do so by connecting to the link: given on the Membership page of the ISTRO website.
4. Print the filled-out payment form and FAX it to **(334-887-8597)** if using a credit card payment, or send it **by regular mail** to the ISTRO Treasure (Allen Torbert) at 411 S. Donahue Dr ., Auburn , AL 36832 USA.

NORDIC TILLAGE CONFERENCE – MAY 2006

The Nordic Association of Agricultural Scientists would like to remind all ISTRO members and others of their up-coming conference entitled “**Tillage Systems for the Benefit of Agriculture and the Environment**” that will be held May 29-31, 2006 at the Nordic Agricultural Academy, in Odense, Denmark. Accommodations will be provided by the Nordic Agricultural Academy. The target group for this conference is scientists, teachers, advisors and farmers who are interested in the impact of soil tillage systems on agricultural production and the environment. The official language will be English. All abstracts and presentations must be prepared and presented in English. Three keynote speakers, **Richard Godwin**, Cranfield University, Silsoe, UK, **Jim Orson**, Morley Research Centre, UK, and **Arild Vatn**, Norwegian University of Life Sciences, NOR

have been invited to make presentations on *Crop Establishment and Machinery*, *Weed and Pest Management*, and *Resource Economics*, respectively. A ½-day excursion is planned on Tuesday May 30th to visit a tillage experiment involving four different tillage systems and four different crop rotations at Research Centre Flakkebjerg, and to visit a couple of farmers practicing reduced tillage.

The conference is being organized because tillage is a management decision that has strong and complex impacts on agricultural production and the environment. Key functions of the agroecosystem (such as nutrient cycling, disease and weed control, water infiltration and runoff, and soil structure formation and stabilization) are affected by tillage. These functions influence the quality of soil for plant growth (seedbed quality, nutrient and water supply, pest and weed control) and with regard to the impact of agriculture on the environment (biodiversity as well as nutrient, pesticide and soil loss). Farm economics are also strongly affected, as soil tillage is the most expensive element in crop production. Therefore, there is an ongoing effort to reduce costs (i.e. tillage intensity) while maintaining crop production and reducing the impact on the environment. In short, the multifaceted effects of tillage call for a multidisciplinary and interdisciplinary approach to advance our understanding of how the various functions are influenced. The objective of the seminar is to bring together scientists and participants from different fields to address soil tillage in an interdisciplinary perspective

The organizing committee invites ISTRO members to submit papers and posters on (1) Crop Protection and Management, (2) Economics and Politics, (3) Crop Establishment and Machinery, (4) N and P loss, or (5) Soil Structure and Quality. All proposed titles and abstracts for either oral presentations or posters should be sent to the Organizing Committee (Lars J. Munkholm, lars.munkholm@agrsci.dk) before December 1, 2005. If accepted for the conference by the Committee, extended abstracts for both oral and poster presentations will be due on or before May 1, 2006. For additional information, please see the Nordic Association of Agricultural Scientists' webpage [<http://www.njf.nu>] and follow the links under the category "Seminars."

17TH ISTRO CONFERENCE UPDATE

Plans for the 17th ISTRO Conference (August 28th –September 3rd, 2006) at the Christian-Albrechts University in Kiel, Germany, as well as the pre-, post-, and mid-conference tours are progressing very well. Hopefully everyone interested in making a poster or oral presentation has already submitted your Abstract. **Remember, they were due on August 1, 2005!**

Themes for the conference are (1) Soil Dynamics and Traction, (2) Traffic, Tillage and Soil Deformation, (3) Conservation Farming and Forestry Land-Use Systems and Environmental Quality, (4) Soil Biological Quality and Health, (5) Soil Amendments, (6) Precision Agriculture, (7) Soil Erosion and Its Control, (8) Economical Aspects of tillage, crop establishment, energy balance, subsidy strategies, and weed control, (9) Soil Management Induced Global Change Effects, (10) Sustainable Landscape Management, and (11) Soil Reclamation. The **Pre-conference Tour** (August 21 – 26) starts at the Frankfurt Airport and will visit sites evaluating long-term tillage research, soil deformation in agriculture, forestry, and in winegrowing areas, water erosion, soil amelioration, open cast brown coal mining, water studies in sandy regions, deep ploughing of peat soils and consequences of land use. The **Post-conference tour** (September 3 – 9) ends at the Frankfurt Airport after stops at sites evaluating soil management and sustainability issues in agriculture and forestry, brown coal mining, soil deformation, subsoiling, amelioration and lysimeter experiments. For budgeting, a maximum fee of 550€ for hotel accommodations, meals, entrance fees etc. can be anticipated. Be sure to look for final details in the registration brochure.

SCHOLARSHIPS FOR YOUNG RESEARCHERS

Don't forget that the ISTRO Board unanimously agreed to sponsor four (4) scholarships to help young researchers (under the age of 40, with demonstrated superior research accomplishments) attend the ISTRO conference. One scholarship is open to young

scientists from all countries, while the other three are for researchers from all countries except those classified as being “high-income.” This listing is found at the website http://www.worldbank.org/data/countryclass/classgroups.htm#Low_income.

The scholarships will cover airfare (lowest cost possible), registration, the Conference Dinner and provide 35 EURO per day toward the hotel accommodation. Scholarship candidates must be current members of ISTRO themselves and nominated by current members of ISTRO.

Nominations including supporting material documenting their research activities (e.g. two recent journal or conference publications), a curriculum vitae listing education and all publications, presentations and teaching activities, and the Abstract for a paper to be presented at the 2006 ISTRO Conference must be submitted to the Assistant Secretary-General (Doug Karlen) by February 1, 2006. The selection committee will consist of the two new Board Members (Allen Torbert and Laura Alakukku). After the selection, the scholarship winners and losers will be informed by the Assistant Secretary-General who will also notify the Conference Organization. Heiner Fleige (Organizing Committee) will then assume all correspondence with the winners.

SOIL & TILLAGE IMPACT FACTOR INCREASES SIGNIFICANTLY

The ISTRO Board was pleased to learn at the mid-conference meeting in May 2005 that the Impact Factor (IF) for Soil and Tillage Research had increased from 0.550 in 1998 to 1.310 in 2003. The ranking (R) among soil science journals has also risen from 17th in 1998 to 7th in 2003. These increases in impact and rank are primarily due to broadening the aims of the journal after incorporating Soil Technology into the journal and a gradual increase in the quality of manuscripts submitted to the journal. Please continue to support Soil and Tillage Research by submitting your best manuscripts to the journal for review and possible publication. Thanks are also extended to all Associate Editors, authors and other members of the production team for ensuring the manuscripts are of the best possible quality before accepting them for publication

18TH WORLD CONGRESS OF SOIL SCIENCE

The due date for submitting an abstract for the 18th World Congress of Soil Science has been extended to December 1, 2005. To submit an Abstract, please go to the website www.18wcoss.org. The deadline was extended to enable more people to participate. The symposia sessions will be finalized by January 15, 2006 with the Congress to be held July 9-15, 2006 in Philadelphia, Pennsylvania, USA. The current registration fee is US\$550, but the cost will increase on both February 1st and May 1st, 2006. For those needing financial assistance to participate, there is also an application for Fellowships listed on the website.

CZECH REPUBLIC CONFERENCE HIGHLIGHTS

The 3rd International Conference entitled “Agriculture, Environment, and Landscape” announced in the July 2004 issue of ISTRO-INFO and held in Brno, Czech Republic from 29 June through 1 July 2005 was very successful. Organized by members of ISTRO – Czech Branch from the Research Institute for “Fodder Crops Ltd., Troubsko with Mendael College of Agriculture and Forestry at Brno, and the Research Institute for Crop Production in Praha, there were 84 participants from 15 countries (Austria, Croatia, Czech Republic, Germany, Hungary, Iran, Italy, Latvia, Lithuania, Mexico, Netherlands, Poland, Romania, Slovakia, and the United Kingdom). A total of 28 lectures and 41 posters were presented on four topics. They were: (1) New methods of soil tillage, (2) Changes in soil fertility, (3) Development of deleterious factors – pests and plant conditions, and (4) Ecological aspects (risks, remediation, and revitalization of soils).

The lectures addressed soil tillage, conservation technologies in light of erosion and preservation of soil quality with catch crops, physical, chemical and biological soil characteristics, irrigation, economics, interrelations between soil nutrients and weed killers, soil revitalization, and the influence of pasture farming on soil quality. A day-long

excursion was also held during which participants visited two farms in southern Moravia. On a crop farm near Blazovicie they became acquainted with the economics, practices used, and products produced. At a second farm near Visnova, participants visited a long-term conservation tillage site. They learned how the minimum tillage practices had cut operating expenses and increased productivity. For more information about the conference including a CD-ROM with the presentations, please contact Ing. Barbora Badalikova at badalikova@vupt.cz.

NEWS FROM THE IUSS

Authors Wanted: The International Union of Soil Scientists (IUSS) is seeking authors to produce and publish a number of brochures (in paper and PDF formats) that explain how Soil Science fits in to current problems and debates on the following themes:

- Soils and Climate Change
- Soils and Food Production
- Soils and Human Health
- Soils and Water
- Soils and Poverty Alleviation
- Soils and Land Use Planning

The brochures (800 words, some pictures, graphs or tables) should be written in plain English and are meant to communicate the importance of soil science to the general public, decision makers, and for colleagues in other disciplines. If you are willing to write such brochure please contact Stephen Nortcliff at iuss@reading.ac.uk

Award Opportunities: Nominations for two awards to be presented by IUSS at the World Congress of Soil Science (WCSS) in Philadelphia, Pennsylvania, USA are due the 30th of September 2005. The awards are the:

IUSS Dokuchaev Award for basic research in soil sciences

IUSS Liebig Award for applied research in soil sciences

Nominations should be sent to Winfried Blum at herma.exner@boku.ac.at. For more information about each award, please see the IUSS website at www.iuss.org.

NEW BOOKS FROM THE SOIL SCIENCE SOCIETY OF AMERICA

Phosphorus: Agriculture and the Environment

J.T. Sims & A.N. Sharpley (ed.) 1121 pages \$155. A thorough discussion by 78 experts, sections include: Production and characteristics, reactions and cycling, plant nutrition and crop management, animal nutrition, management practices, phosphorus and the environment.

Chemical Processes in Soils

M.A. Tabatabai & D.L. Sparks (ed.) 723 pages \$90. Essential, detailed coverage of soil chemistry for those in the agricultural, environmental and earth sciences.

For more information please see "STORE" at www.soils.org.

SOIL QUALITY NEWSLETTER AVAILABLE

Volume 8, Edition 2 of the Newsletter by the North Carolina (USA) Soil Quality Team was recently issued. It includes articles entitled "Lots of Choices for Rolling Cover Crops!" by Dana Ashford-Kornburger, "Why Cover Crops?" by Will Mann, and "Soil Organic Matter Evaluation at the Beecher Grose Faarm in Iredell County, NC" by Alan J. Franzluebbbers. For a copy of this and/or other issues of the Newsletter, go to <ftp://ftp-fc.sc.egov.usda.gov/NC/NCweb/Technical/sqnl/sqnl-5-05.pdf> or view them at <http://www.nc.nrcs.usda.gov/technical/TechRef/soilqualitynewsletter.html>

FINAL COMMENTS

Please remember, **COMMUNICATION** is the key to having an effective International Soil and Tillage Research Organization. Your ideas, concerns, successes and failures will help all of us improve our research and technology transfer programs. All comments and suggestions for improving ISTRO-INFO will be appreciated.