



# **ISTRO INFO**

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

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## ISTRO INFO – June 2010

As people who deal with crop production in its many forms, ISTRO members will be used to coping with uncertainties – no rain when it is wanted; too much when it is not, etc. At the time of the last newsletter I doubt that any of us considered something so out of the ordinary as the volcanic eruption in Iceland!. For most ISTRO members the consequences have probably been insignificant – but for those who had planned and prepared for the CTF working group meeting in Switzerland the consequences were serious. On Wednesday before the scheduled event everything was on track with the Swiss efficiency of Thomas Anken, Martin Holpp and colleagues. By Friday evening with most European air space (including that above the Swiss destination) closed the decision was taken to postpone the workshop. Further information on the new program is later in this issue is and the new dates are August 17-18, 2010.

It has not been the custom for ISTRO INFO to acknowledge each individual membership. New members receive a membership certificate and start to receive the ISTRO INFO and other communications. I will however note one new member as it highlights the extending spread of ISTRO involvement. ISTRO has just accepted our first member in Bhutan! Bhutan (for those unfamiliar with the geography of the area) is an independent democratic nation between India and China. Thinlay Wangchuk studied Agricultural Science at La Trobe University in Melbourne Australia (where I first met him) and subsequently did a Masters degree in soil science at Reading University in the UK. Thinlay has worked for the Ministry of Agriculture in Bhutan and is currently employed by SNV (the Netherlands Development Organization) working to achieve a sustainable balance between environmental quality and productivity for the mainly subsistence farmers of eastern Bhutan. The picture is of Thinlay in cap and traditional Bhutanese “gho” discussing with farmers and Ministry of Agriculture staff options for controlling the erosion through the field of intercropped maize and potatoes. Note the water flowing through the field!



Having a first ISTRO member from Bhutan is great news – but there are still other areas of the globe where ISTRO has little or no representation. I challenge members to reach out to colleagues, friends or even just acquaintances in areas where ISTRO does not have a strong foothold and help them to join the ISTRO community.

ISTRO INFO is for communication between members and as such is happy to publish information (words, pictures etc) on meetings, activities or other things that members think are likely to be of interest. Remember also that details for events are given in the following pages with updates appearing on the activities page of the ISTRO website ([http://iworx5.webxtra.net/~istroorg/p\\_frame.htm](http://iworx5.webxtra.net/~istroorg/p_frame.htm) )

Blair M. McKenzie

Assistant Secretary General

## **Soil & Tillage Research: Congratulations ISTRO Authors & Reviewers**

Last month ISTRO INFO carried a plea to members from Secretary General Doug Karlen to take seriously their reviewing responsibilities for our journal Soil & Tillage Research. This month we are able to highlight the significant improvement in the Impact factor for Soil & Tillage Research. Thanks to the hard work and excellent science contributed by ISTRO authors and reviewers, the Impact Factor (a measure of the scientific quality and respect a journal receives) has risen significantly for Soil & Tillage Research. In 2008 the impact factor was a respectable 1.695, but in 2009 it has risen to 2.883, placing it in the top few journals in the area. A major factor contributing to this rise is an increase in the total number of citations – which means that the papers being published are meaningful and important to others. In 2008, there were 3,811 citations to papers published in Soil & Tillage Research while in 2009 there were 5,192! More people are reading and referring to our results, which creates a journal with greater impact and recognition.

To continue the upward trend for Soil & Tillage Research, ISTRO members are requested to keep submitting high quality manuscripts for publication and when asked to take on the task of reviewing, to do so diligently and promptly. If you have never been asked to serve as a reviewer, please contact Doug or any of our four editors. You will be asked for some information about your areas of interest and your name will be added to the list of active reviewers.

## **ISTRO is offering a 3 year free membership of ISTRO to recent PhD graduates in soil-tillage related fields**

The Board of ISTRO wants to make sure that the membership of ISTRO continues to grow and includes the best scientists in the broad areas of soil and tillage research. One way to promote our Research Society is to make sure that new scientists in the field are aware of ISTRO and become active members. In this regard, ISTRO has initiated a program for current members to promote membership among recent PhDs in soil-tillage related fields. ISTRO will provide worthy candidates a 3 year free membership to ISTRO (and a free 1 year subscription to Soil & Tillage Research) if

nominated by a current member of ISTRO. In order to participate in the program, the candidate must supply a copy of their PhD dissertation abstract which can be posted on the ISTRO website.

Nominations by existing ISTRO members of recent PhD graduates for this program can be sent to Secretary General - Dr. Doug Karlen ([doug.karlen@gmail.com](mailto:doug.karlen@gmail.com)) or to the Assistant Secretary General - Dr. Blair McKenzie ([blair.mckenzie@scri.ac.uk](mailto:blair.mckenzie@scri.ac.uk)). The candidates' PhD research has to be related to soil and tillage research, so a short description of the candidates' research area should be included. Also, the contact information for the candidate should be included.

Please consider nominating new PhD's for this opportunity.

### **Report on the Estonian Branch conference held in June**

From 8 – 10 June this year almost 50 participants from 8 countries (Czech Republic, Estonia, Finland, Germany, Hungary, Latvia, Lithuania and Poland) actively participated in an International Conference on “Risk in Agriculture: Environmental and Economic Consequences” in Tallinn, organized by the Estonian Branch of ISTRO. There were 34 scientific presentations. It was noted that while the risks and problems associated with land use for agriculture and other purposes are often similar, Estonia and the other Baltic states had some particular regional issues associated with the abandonment of military bases following the end of the cold war. Participants heard presentations on topics including Food quality and safety, Environmental strategies, Weather and soil resources and Crop production and Economy.

Mainstream issues such as the impact of climate change on soil and water management were considered with specific examples such as the importance of agrometeorological data for considering numbers of extreme wet days or dry periods. Similarly sustainable crop production and the use of appropriate, improved crop rotations was considered but the meeting also discussed ideas for novel opportunities for the use of little known or niche crops. Several presentations focused on topics of the ISTRO working groups, such as subsoil compaction and its wider impacts on soil structure. A wide range of issues from the macro scale such as EU directives and

policies on phytosanitary efficiency through to practical issues for individual farmers such as the preparation good seedbeds, slurry application methods and weed control provide opportunities for all delegates to participate. The identified session on food quality and safety brought presentations on contamination risks, hygiene management and opportunities for biofortification of the concentration of micro elements in various foods. Risks to crops and the environment (including to groundwater and gaseous emissions) were identified from poor agricultural practice and poorly targeted policies.



Delegates at one of the sessions.

A photo gallery of the conference can be found at

<http://demo.eria.ee/avalik/istro2010/>

Thirty two of the conference papers have been published in Journal “Agronomy Research”, vol. 8, Special Issue 2, 2010, pp.504.

The post conference tour on 10 June visited abandoned military installations, scenic and cultural attractions, the experimental farm near Nissi and field experiments

at Kuusiku, the Research Centre in Saku to examine soil profiles before finishing at the Estonian Research Institute of Agriculture (ERIA).



A group on the field trip enjoying the picturesque surrounds.



Delegates on the field excursion examining soil profiles

## **Uruguayan ISTRO Branch and the Uruguayan Society of Soil Science Conference 12-14 July 2010**

The science and technology community is invited to participate in a meeting on the topic of “Soil properties dynamics under different land uses” to be held in Bastion del Carmen - Colonia. The conference language is Spanish. The program is now available and keynote presentations include:

Antonio Mallarino (Iowa State University) Definición de zonas de manejo para la aplicación variable de P y K.

Douglas Karlen (USDA-ARS) Crop residue removal for biofuels impacts on soil quality.

Jorge Hernandez (Facultad de Agronomía, UdelaR) Manejo de residuos de cosecha forestal y su impacto en el ciclado de nutrientes.

Armen Kemanian (Pennsylvania State University) Assessing production systems and natural resources conservation in micro-catchments with simulation models.

Fernando Salvagiotti (INTA, República Argentina) Estrategias de fertilización en sistemas agrícolas continuos: Soja, nitrógeno y sustentabilidad del sistema.

Mariano Saluzzio (Facultad de Agronomía Entre Ríos) El control de erosión en sistemas agrícolas. La experiencia de Entre Ríos.

Agustín del Prado (Basque Centre for Climate Change, España) Emisiones de gases de efecto invernadero en sistemas agropecuarios: buscando soluciones prácticas empleando modelos.

Blair McKenzie (Scottish Crop Research Institute) Development and application of a multi-criterion analysis of soil quality indicators.

Ricardo Melchiori (INTA República Argentina) Uso de sensores remotos para la aplicación variable de fertilizantes (N) en maíz y trigo.

Cimelio Bayer (Universidad Federal de Rio Grande do Sul). Estabilización de la materia orgánica en suelo, secuestro de C e mitigación de las emisiones de gases de efecto invernadero en sistemas conservacionistas de manejo en Brasil.

The website of the Universidad de la República – Uruguay, Estación Experimental ( <http://www.eemac.edu.uy> ) provides a range of information for this meeting (as well as hosting information for the 19<sup>th</sup> triennial conference). Details specific to this meeting can be found at

([http://www.eemac.edu.uy/dmdocuments/reunion\\_tecnica/La Sociedad Uruguaya de Ciencia del Suelo y la ISTRO.pdf](http://www.eemac.edu.uy/dmdocuments/reunion_tecnica/La_Sociedad_Uruguaya_de_Ciencia_del_Suelo_y_la_ISTRO.pdf) ) which gives full details of all oral presentations.

A meeting of the ISTRO board will follow on 15-16 July 2010. Reports on the conference and board meeting will be in the next issue of ISTRO INFO.

## **17 & 18 August 2010 New Date: Controlled Traffic Farming and minimum tillage in the framework of small scale farming**

The CTF working group and in particular Thomas Anken and colleagues at the Agroscope Reckenholz-Tänikon Research Station in Switzerland have put together a 2 day workshop for 17 & 18 August 2010. The practical program includes demonstrations and hands on sessions including:

- Minimum tillage and direct drilling: more than 20 years of experience in Switzerland - overall situation and updates
- Visit to field lysimeters: nitrate leaching from plough and no-tillage
- CTF trial in Tänikon (soil water, redox-potential, soil air, temperature and more)
- Spade test: Practical application - How can we improve acceptance by farmers?
- GNSS: Presentation of the virtual network in Switzerland and practical experiences with auto steer and the Swiss virtual network
- Visit to the research farm (tractor test bench, automatic detection of broad-leaved weeds, renewable energies in Switzerland)
- Visit to entrepreneurial farmers practicing strip tillage of wheat and corn
- Visit of a local vineyard with wine tasting

This workshop will include a meeting of the ISTRO CTF working group on Tuesday evening which will consider updates from working group members, news about commercial application and ideas for research to optimize CTF systems. All details and the final program have been published on websites ( [www.ctf-swiss.ch](http://www.ctf-swiss.ch) and [www.controlledtrafficfarming.com](http://www.controlledtrafficfarming.com) ). Contacts Thomas Anken & Martin Holpp, Agroscope ART, CH-8356 Ettenhausen  
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A report on the event will be in the next ISTRO INFO. If members are interested in working group activities they are welcome to email the working group contacts identified on the website.

### **Croatia Branch Conference 9-11 September 2010**

Members and others interested are invited to attend the Croatian Branch conference “Soil Tillage – Open Approach” from 9-11 September 2010 in Osijek. Details are on the website (<http://suncokret.pfos.hr/~hdpot/simpozij.htm>). Delegates from more than 12 countries have already registered.

The conference is organized by the Croatia Soil Tillage Research Organization – CROSTRO and the Croatian branch of ISTRO. The conference themes will be:

1. Soil tillage in function of environmental protection
2. Conservation tillage – direct seeding – no-tillage
3. Soil biotic and abiotic degradations – causes and consequences
4. Soil tillage – new approach – technologies – perspectives

The final program will be published on 1 August. The scientific and professional presentations will promote correct application of agrotechnical measures, the newest state-of-the-art information and techniques, and alternative approaches in agricultural production – all in the scope of soil tillage. English will be the official language for the conference. For more information including travel and accommodation, see the website or contact Dr. Bojan Stipešević – Branch President at: [Bojan.Stipesevic@pfos.hr](mailto:Bojan.Stipesevic@pfos.hr)

### **Other conferences and events**

19<sup>th</sup> World Congress of Soil Science in Brisbane Australia, 1-6 August 2010. For information: <http://www.19wcsc.org.au/whats-new.html>

XI<sup>th</sup> European Society for Agronomy in Montpellier France, 29 August – 3 September 2010. Information at: <http://www.agropolis.fr/agro2010>

ASA-CSSA-SSSA International Annual Meeting is in Long Beach California, U.S.A. 31 October – 4 November 2010.

6<sup>th</sup> International Congress of the European Society for Soil Conservation in Thessaloniki, Greece titled “Innovative strategies and policies for soil conservation”, 9-14 May 2011. Website to be launched soon.

## **Final Comments**

ISTRO INFO exists to share information in an informal manner between ISTRO members. The information can be much broader than announcements of workshops and meetings (although of course I welcome those). I know there is a wealth of information produced by ISTRO members as websites, extension activities, teaching materials, books and newsletters. If members are willing to share the results of their hard work then I am happy to use ISTRO INFO to see that it reaches the over 600 functioning email addresses in the ISTRO data base. The anticipated date for distributing the next issue is September 30 – so contributions before that date are welcome.

Blair M. McKenzie

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