



ISTRO INFO

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

December 2010

Dr. Blair M. McKenzie
Assistant Secretary General, ISTRO
Scottish Crop Research Institute
Invergowrie, Dundee,
DD2 5DA, UK

Table of Contents

ISTRO INFO – December 2010	3
Nigerian Branch Conference Tillage for Agricultural Productivity and Environmental Sustainability 21-24 February 2011	4
Announcement of Working Group F meeting – Applications of Visual Soil Evaluation 16-18 May 2011	5
Announcement of ISTRO working group K – CTF 24-25 May 2011	6
19th ISTRO congress Uruguay 24-28 September 2012	7
Report on the International Exploratory Workshop on soil compaction modeling and news for working group B subsoil compaction.....	8
New Chair and Secretary of working group B subsoil compaction	9
News from the Croatian branch.....	10
Other conferences and events.....	11
Final Comments	11

ISTRO INFO – December 2010

The general form and layout of ISTROINFO has not changed for more than a decade. It has been suggested to me that with the improvements in technology, formatting etc this might be a good time to update the format and content. There is an alternative view that ISTROINFO has an established and comfortable format and that this is a good reason not to change! Having informally canvassed some local colleagues, reaction has been broadly in favour of an updated format. When I have asked about the content of ISTROINFO, the purpose of connecting ISTRO members with activities and each other is agreed - but opinions as to the breadth and depth of extra information varies. Erik van den Elsen our webmaster has been very supportive of updating this newsletter so that our two forms of connection with members are best aligned. As we go through these updates in the year ahead, I welcome any comments, thoughts, suggestion etc that members have to help the flow of information. Similarly if any members have information, notices or other things for the website please let me or Erik know.

The other item to draw to member's attention is the on-going activities of the working groups. There is more information on these as you read on. What may be of interest to some members is that for the first time there is some coordination between these activities. Working group F visual soil evaluation has a meeting in Denmark on May 16-18 2011. Working group K controlled traffic farming has a meeting planned in southern Germany on May 24-25 2011. Each activity is entirely discrete. However, knowing that people may be reluctant to travel long distances for a single event, this combination offers the opportunity to attend 2 events in 10 days. I am sure there are many opportunities for scientific visits or simple tourism that could be taken in traveling between the two venues. Perhaps we should have sought sponsorship from the Danish and German tourism boards.

Blair M. McKenzie

Assistant Secretary General

Nigerian Branch Conference Tillage for Agricultural Productivity and Environmental Sustainability 21-24 February 2011

In late October the executive committee of the Nigerian branch of ISTRO and organizing committee of the conference held a joint meeting to ensure preparations are on track and to review submissions received. Due to requests from potential participants the meeting has been extended by one day. The extra day (Thursday 24th) will be a technical tour to see a range of agricultural activities including conventional agricultural practices in Nigeria. Also included should be practical demonstration of a two wheel tractor drawn seeder.

Members, and others interested, are invited to attend the ISTRO Nigerian symposium at the University Auditorium, University of Ilorin, Ilorin, Kwara State, Nigeria. Details, including a poster for display on notice boards are at: (http://iworx5.webxtra.net/~istroorg/download/Istro_Nigeria_Symposium_2011_Poster.pdf) Further information can also be obtained by contacting the Technical Secretary (ISTRO-Nigeria), Dr J.O. Olaoye (olaoyejo@yahoo.com).

Lead papers include:

Tillage in Nigerian Agriculture by Prof K.C. Oni, University of Ilorin

Tillage, Crop Production and Environmental Conservation by Prof S.O. Ojeniyi, Federal University of Technology

Soil Dynamics in Tillage by Prof A.P. Onwualu, Director General Raw Materials R&D Council

Soil and Tillage Equipment by Prof C.I. Ijoma, Federal University of Technology and

Conservation Tillage for Sustainable Agricultural Productivity by Prof P.O. Aina, Obafemi Awolowo University.

Registration: Registration is now N10,000.00 for local delegates. Delegates from developed countries will pay conference registration fees of \$US150 at the conference desk. This can be either in cash or cheque.

Travel: The closest point of entry (by air) to Nigeria is Murtala Mohammed International Airport (MMIA), Lagos, Nigeria. Connections to Ilorin are from the domestic terminal with daily flights by Overland Airways and Arik Air. To facilitate travel to Nigeria intending participants are advised to contact their travel agents.

Accommodation: Several hotels in Ilorin are offering accommodation for participants and contact details can be found on the web address above.

Announcement of Working Group F meeting – Applications of Visual Soil Evaluation 16-18 May 2011

Monday and Tuesday 16th and 17th May 2011, Research Centre Flakkebjerg, Denmark

With a follow-up day Knowledge Transfer day for advisors, farmers and policy makers on 18th May 2011

The deadline for submission of one page abstracts has been extended and should now reach the organizers by January 31st 2011. Full details are at the workshop homepage (www.agrsci.au.dk/VSEE), and this will be updated soon to include more information on registration etc. The first two days, 16th and 17th May, VSEE members, ISTRO members and colleagues and are invited. A more general invitation to advisors, farmers, consultants etc. is made for the Knowledge Transfer meeting on Wednesday 18th May. Please note that on Wednesday only those involved in the methods chosen for demonstration need attend.

The meeting will be held at Aarhus University, Research Centre Flakkebjerg, which is located 1h drive from Copenhagen.

http://agrsci.au.dk/en/om_djf/centre/forskningscenter_flakkebjerg/

The soil is sandy loam developed on till moraine with a low concentration of organic matter and will have treatments of contrasting tillage and controlled traffic levels where methods can be evaluated.

Objectives: (that are clearly within the working group guidelines) :

To discuss subsoil methods,

To exchange experiences in using different visual methods,

To begin to harmonize their scales and to relate visual methods to environmental losses.

Offers of presentations in the form of one page abstracts should be sent to the organisers by January 31st. If you intend to demonstrate a method on Tuesday, please send details of the method, including any web description, and how you intend to demonstrate it by January 31st. We aim to publish presentations and descriptions of demonstrated techniques in a special issue of Soil & Tillage Research.

Can those wanting to attend please contact (bruce.ball@sac.ac.uk or lars.munkholm@agrsci.dk or 2033@tombatey.f2s.com) preferably by 31st January. The registration fee for the 2-day meeting will be 200 Euro; and for the KT day 75 Euro.

Announcement of ISTRO working group K – CTF 24-25 May 2011

Tuesday and Wednesday 24th and 25th May 2011, Bavarian State Research Center, Weihenstephan, Germany

The topic of the meeting will be: RESEARCH ON CONTROLLED TRAFFIC FARMING AND STRIP TILLAGE

Draft Outline Programme

24 May, 10:30 am. Arrive BSRCA at Freising

PM. Travel to Eichstätt to view field experiments at Wittenfeld

Overnight. Stay at Eichstätt

25 May. Visit to geo-konzept (<http://www.geo-konzept.de/de/>) and learn about its close association with the work at BSRCA

PM. Return to Freising and depart

Background

The CTF research centred at Freising is a three year programme which started in 2009. With the aim of adapting CTF and strip tillage practices to Bavarian conditions, it involves the investigation of soil water balance and plant growth and the technology needed for its realisation. Field experiments at three locations involve different CTF systems within five rotations growing sugar beet, maize, oilseed rape, rye and wheat. Specific measurements include yields and crop quality, labour and energy requirements and the operability of the different systems.

CTF AND VSE WORKING GROUPS

The programme is still under development but the date has been chosen to provide connection to the ISTRO Visual Soil Examination working group meeting on 16-18 May in Denmark, while being close enough in time to encourage travellers from afar to attend both with a short break in between. If one or other of these meetings is of interest, please put them in your diaries and await further news and developments. More information on the CTF meeting will be available from the organizers Markus Demmel (Markus.Demmel@lfl.bayern.de) and Robert Brandhuber (Robert.Brandhuber@lfl.bayern.de).

19th ISTRO congress Uruguay 24-28 September 2012

The team in Uruguay continue to work diligently preparing for the next ISTRO conference. Keep watching the website for regular updates (www.congresos-rohr.com/istro2012) as all the available information cannot be carried in a single issue of ISTROINFO. First details of the pre conference (starting in the pampas of Argentina) and post conference tour (finishing in southern Brazil) are on the website. Notice that the deadline for abstracts is now less than 12 months away – 10 December 2011. Put this date for your diary or calendar and a flag several weeks before, so that you can have things ready on time for the organisers. Conference sessions include: Tillage and soil physical properties, Tillage and soil chemical properties, Tillage and soil biology; Conservation tillage and soil management for sustainable farming systems, Precision agriculture, Greenhouse gas emissions and soil carbon sequestration; Developments in soil dynamics and modelling of tillage and traction. Registration details, deadlines and general travel information are also available.

Report on the International Exploratory Workshop on soil compaction modeling and news for working group B subsoil compaction

12/13 October 2010, Zurich (Switzerland)

The International Exploratory Workshop on Soil Compaction Modelling was held at Agroscope Research Station ART, Zurich, Switzerland, 12/13 October 2010. The workshop was convened by Thomas Keller (Agroscope Research Station ART, Zurich, Switzerland) and Mathieu Lamandé (Department of Crop and Soil Sciences, Aarhus University, Tjele, Denmark).

An initial motivation for organizing the workshop was that most research on soil compaction of agricultural soils is empirical and mainly deals with effects of compaction on soil physical properties and crop responses. Models used for calculation of stress propagation through agricultural, structured soils and associated deformation suffer from insufficient knowledge. More information is needed on soil structure and soil water effects on stress propagation, and on the characterization of soil mechanical properties relevant for short term dynamic loading as occurs in agricultural soils. An international, interdisciplinary effort is needed to advance the description and modelling of fundamental soil mechanical processes related to soil compaction.

The aim of the workshop was to bring together young and experienced researchers with expertise in mechanical behaviour of soil and granular material, and stress transmission through porous media (soil, geomaterials, granular media) from different research fields, namely soil physics (including soil mechanics and soil rheology), geomechanics, geophysics and granular material, in order to: (i) present state of the art; (ii) identify common ground; (iii) explore possible new approaches to soil compaction modelling; and (iv) improve coordination and research efforts.

Eighteen scientists from 7 countries participated in the workshop. Five keynote speakers from Europe, Canada and USA (Stephan Peth, Patrick Selvadurai, Jean Rajchenbach, Markus Berli and Wolfgang Rabbel) provided state-of-the-art reviews on current knowledge within the above-mentioned research topics. The programme further included 6 invited oral presentations, and extensive discussions.

We gratefully acknowledge financial support from the International Soil Tillage Research Organization (ISTRO), the Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning (Formas) and Wille Geotechnik APS GmbH, Göttingen (D).

Some approaches discussed at the workshop in Zurich were presented at the 1st International Conference and Exploratory Workshop on Soil Architecture and Physico-Chemical Interactions “CESAR” that was held 30 November - 2 December 2010 at the Research Centre Foulum, Aarhus University, in Tjele, Denmark, and published in:

Lamandé M., Keller T., Berli M., Carizzoni M., Delenne J.-Y., Markgraf W., Or D., Peth S., Rabbel W., Rajchenbach J., Selvadurai P. 2010. Towards new approaches for modelling soil mechanical behaviour. In: de Jonge L.W., Moldrup P, Vendelboe A.L. (eds.) 1st International Conference & Exploratory Workshop on Soil Architecture and Physico-Chemical Functions “CESAR”, DJF Report December 2, 2010, 189-194.

Thomas Keller & Mathieu Lamandé

New Chair and Secretary of working group B subsoil compaction

Perhaps not surprising after the above report but Jan van den Akker, until recently Chairman of working group B, has much pleasure in announcing that Thomas Keller (thomas.keller@art.admin.ch) is the new Chairman of working group B and Mathieu Lamandé (Mathieu.Lamande@agrsci.dk) is the new Secretary. Jan is really pleased to see two younger ISTRO members taking an active role.



A photo, taken by Per Schjønning, showing Thomas and Mathieu on top of mountain Rigi ("Queen of the mountains", www.rigi.ch) one day after the workshop.

News from the Croatian branch

The results from the recent elections of CROSTRO, the Croatian branch of ISTRO are: Danijel Jug – president, Ivica Kisić – vice president, Bojan Stipešević – secretary, Boris Đurđević – treasurer. The new mailing address is: Danijel Jug, Kralja Zvonimira 61, 31000 Antunovac, Croatia. The web site address remains at: <http://suncokret.pfos.hr/~hdpot/simpozij.htm> Note that CROSTRO are starting to plan a conference or similar event for 2013.

Other conferences and events

46th Croatian and 6th International Symposium on Agriculture at the Grand Hotel Adriatic, Opatija, 14-18 February 2011 (<http://sa.agr.hr>)

6th International Congress of the European Society for Soil Conservation in Thessaloniki, Greece titled “Innovative strategies and policies for soil conservation”, 9-14 May 2011.

Land quality and Land Use Information in the EU, 26-27 May 2011 Keszthely, Hungary (<http://landq2011.uni-pannon.hu/>)

World Congress of Conservation Agriculture in Brisbane in September 2011. For more information see <http://www.wcca2011.org/index.htm> .

2nd Human Impacts on Soil Quality Attributes in (Semi-) Arid Regions”HISQA2” at Isfahan University of Technology in May 2012. This meeting will have substantial contribution from the Iranian ISTRO Branch and their branch Chair, Mohammad Hajabbasi is taking the opportunity to invite ISTRO members from around the world to participate and meet their Iranian colleagues. Topics relating to soil physical, chemical and biological degradation including salinization, nutrient depletion, desertification will be addressed.

International Society for Root Research 2-6 July 2012 Dundee, UK

Final Comments

At the risk of repeating final comments from the September issue please can I remind all members that in 2012 some members of the ISTRO board will step down having served their terms of office. Prior to that there will be a call for nominations and a ballot of members for board positions. While everyone I know seems to say that they are increasingly busy, I also know that I am very much enjoying and certainly find rewarding my ISTRO activities. So while there is still time to reflect before the call for nominations I urge members to consider whether they would be willing to nominate to serve on the ISTRO board.

This is a time of year when many of you will be traveling to spend holidays with family and friends. I sincerely hope that you travel safely and that you arrive as scheduled. With very best wishes for the holiday season and for a peaceful and productive 2011.

Blair M. McKenzie

Assistant Secretary General