

Lars J. Munkholm

Year 2015 was busy seen from an ISTRO point of view. The big event was of course the successful Nanjing 20th Triennial Conference (Please, consult the October 2015 issue for more details). The conference contributions concentrated on progresses within soil and tillage research, but not so much on the application of the results in practice. I am sure that the conference promoted contacts among scientists and stimulated scientific research, which are key goals of ISTRO. The third key goal of ISTRO, which should not be neglected is: *“to further the application of the results of such research into agricultural practice”*. Many of you address this goal in your daily work, but here, I want to highlight the strong effort by the Controlled Traffic Farming (CTF) working group on linking research, industry and practice together. They have been very focused on this linkage since the working group was established in 2003 at the Brisbane ISTRO Conference. This is evident from the activities described on their homepage:

www.controlledtrafficfarming.com

In 2015 the CTF group helped organizing the second International Controlled Traffic Farming Conference in Prague, Czech Republic as reported below. The conference attracted 130 participants from research and non-research fields. This highlights the strong mutual interest by farmers, engineers and researchers in optimizing traffic and tillage in modern farming systems.

In 2016 numerous meetings and conferences are scheduled, but none is being organized by ISTRO as far as I know. We have listed some meetings at the end of this newsletter that may be of relevance to you. Please, let me know if you have news from meetings/workshops, announcements of upcoming events and reports from branch/working group meetings. Send the information to:
lars.munkholm@agro.au.dk.

This ISTROINFO will be circulated to present and recent members of the organization. We are updating the mailing list at the moment. This involves removing email addresses of members whose subscriptions are overdue. If you are in doubt about whether subscriptions are up-to-date, please, contact the treasurer, Steve Prior

(Steve.Prior@ars.usda.gov). ISTROINFO will still be published online on the ISTRO homepage (www.istro.org).

⌘ ISTRO 2015 Post-conference Tour Yellow Mountain

After the ISTRO 2015 conference in Nanjing a group of ISTRO members went on a post- conference tour to Yellow Mountain. Here are a few snapshots by John Fielke.



⌘ Controlled Traffic Farming Working Group Report

The main recent activity of the Controlled Traffic farming (CTF) Working group was to assist in organizing the second International Controlled Traffic Farming Conference in Prague, Czech Republic (CTF2015). This attracted over 130 delegates from around the world. The meeting was financially assisted by Horsch, Claas and Trimble. The first day of the conference consisted of presentations and posters, kindly hosted at the Czech University of Life Sciences (CULS), while the second day involved a visit to the Horsch farm, Agrovia at Knežmost.

Presentations were divided into the following five main topic areas:

1. Farmer experiences with CTF
2. CTF experiences from Australia and Canada
3. Research on the economic and the environmental aspects of CTF
4. Experiences of getting started with CTF
5. Industry views of CTF

Specific areas of research included the effect of soil compaction on nitrous oxide emissions, the economics of CTF in forage grass production and the engineering development needed in vegetable production.

The informal nature of the conference dinner gave people ample opportunity to move from table to table to join discussions of whatever nature with different groups. I also think the conference enthused everyone there. We all recognized that CTF as a farming system still has a long way to go before it becomes mainstream. Nevertheless, our engagement with and support from Horsch, Trimble and Claas showed that the industries now also recognize that there is a unique market for their products amongst controlled traffic farmers.

The visit to the Agrovia farm was largely to see farm machinery, most of which are developed by Horsch, specifically, for CTF.

Most of the machines are equipped with rubber tracks, which Michael Horsch believed ensured that



Pre- and post-conference tours were run as part of the CTF2015 conference.

The photo shows sugar beet established within a CTF regime in the UK



The CTF2015 pre-conference tour visited farms on the Danish mainland as well as the island of Samsø

the traffic lanes remained more accessible and with less damage than from wheels.

In the field, infiltration tests had been conducted with blue dye and showed a marked contrast between the traffic lanes and the non-trafficked beds.

What else did we learn? To some extent I think we learnt that there is still a lot to learn about CTF! CTF gives us new opportunities to develop farming systems that are not always being compromised by random vehicle compaction. If CTF cannot allow us to manage the soil to deliver improved yields, greater diversity of cropping and enhanced soil function, then it is just that we have not learnt how!

More research to help us deliver on these things would be helpful, for example:



Results of infiltration tests with dye. On the left of the photo is a non-trafficked bed and to the right, an intermediate traffic lane.

- To what extent do the residual effects of traffic and tillage continue to destabilize our soils within a CTF regime?
- What tillage do we need (if any) in non-trafficked soil to maintain structure and how does this vary between soil types and climatic regions?
- What machine systems do we need to ensure that soil surfaces remain level despite parallel working?
- What is the most effective means of dealing with chemical resistant weeds and diseases?
 - change in row spacing?
 - inter-row operations?
 - minimal soil disturbance?
- Should land going into CTF be deep loosened?
- Will up/down orientation of traffic lanes reduce erosion potential or vice versa?
- Is there an ideal starting point and procedure to get started with CTF?

More information about the conference, the presentations given and a summary of the conference proceedings can be found at:
<http://www.smartagriplatform.com/CTF2015>

We hope the next opportunity for a meeting of CTF minds will be at the next ISTRO conference in

France in 2018, more news on this will be posted in future ISTROINFOS.

By Tim Chamen, January 2016

⌘ Upcoming Meetings

International Fair of Agricultural Machinery (FIMA) Conference on “New technologies in agricultural machinery and equipment for a competitive and sustainable agriculture”, February 17, 2016 in Zaragoza, Spain:

http://www.feriazaragoza.com/fima_agricola_en.aspx

The 12th International Conference of Egyptian Soil Science Society (ESSS) on “Development of Water and Soil Resources: Challenges and Solutions” organized by ESSS together with Soil & Water Dept., Faculty of Agriculture, Suez Canal University, Ismailia, Egypt: March 7-9, 2016 in Ismailia, Egypt :
<http://www.esss.org.eg/tewelveofsoil.html>

40th Annual Conference of Soil Science Society of Nigeria on “Promoting use of Nigeria’s Soil Resources for Sustainable Ecosystem Services, Climate-Smart Agriculture, Food and Nutrition Security”, March 14-18, 2016 at University of Calabar, Cross River State, Nigeria:
<http://soilsnigeria.net/?p=281>

5th Edition of The International Conference on Agricultural Development and Sustainability “AGROCENTRO 2016”, April 5-9, 2016 in in Hotel Paraiso Azul in Villa Clara, Cuba:
<http://agrocentro.uclv.edu.cu>.

European Geosciences Union (EGU) General Assembly 2016, April 17-22, 2016 in Vienna, Austria:
http://egu2016.eu/information/general_information.html

1st International Conference on Advances in Soil Science, May 2–5, 2016 in Alexandria, Egypt:
<http://icass-eg.com/>

European Society for Soil Conservation (ESSC) International Conference 2016 on “Soil– *Our Common Future*”, June 15-18, 2016 in Cluj-Napoca, Romania: <http://essc2016.conference.ubbcluj.ro/>

4th CIGR International-AgEng Conference 2016 on “Robotics, Environment and Food Safety”, June 26-29, 2016 in Aarhus, Denmark:
<http://conferences.au.dk/cigr-2016/>

7th Global Digital Soil Mapping Workshop 2016, June 27 – July 1, 2016 in Aarhus, Denmark:
<http://digitalsoilmapping.org/7th-global-digital-soil-mapping-workshop-2016/>

5th EUROSIL Congress 2016.
July 17—22, 2016 in Istanbul, Turkey:
<http://www.eurosoil2016istanbul.org/>

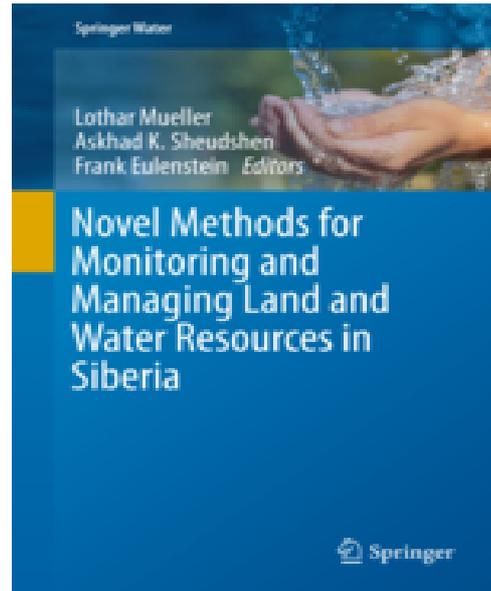
1st World Conference on Soil and Water Conservation under Global Change – CONSOWA, 2017, June 12-16, 2017 in Lleida, Spain:
http://www.swcs.org/index.cfm/6404/72691/first_world_conference_on_soil_and_water_conservation_under_global_change

European Society of Agronomy conference is in Edinburgh, September 5-9, 2016 in Edinburgh, Scotland: <http://esa14.org.uk/>

21st World Congress of Soil Science (WCSS) on the theme: “Soils to feed and fuel the world”. August 12-17, 2018 in Rio de Janeiro, Brazil:
<http://21wcss.org/>

2018 21st ISTRO Conference, Paris, France

⌘ New Book by ISTRO Members

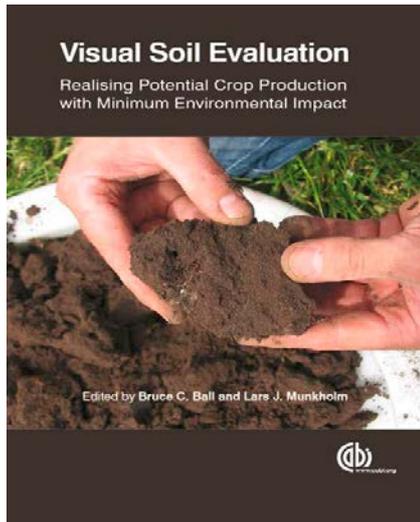


Available in hardback, paperback and as an e-book

This new monograph is made up of chapters contributed by leading authors in soil science, landscape research and related disciplines. The book presents detailed analysis of land and water resources in Siberia. It characterizes the landscapes, their ecosystems, crucial processes, human impacts on soil and water quality, and status quo of available research. The book also addresses modern monitoring and management methods, which if adopted can lead to a significant knowledge shift and initiate sustainable soil and water resources use.

More information available at:
<http://www.springer.com/br/book/9783319244075>

Discount on visual evaluation book



A discount of 20% is given to ISTRO members until end of March. Any member who wishes to buy a copy of the book should enter the discount code: **CCVSE20** when he/she proceeds to check out on CABI publishers' online book store.

⌘ Other Book Launches

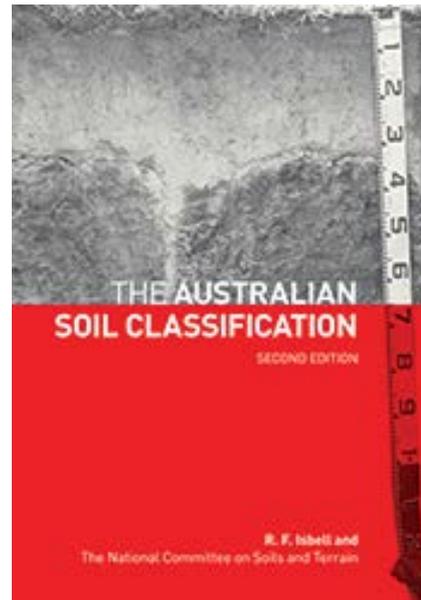
First Global Soil Biodiversity Atlas

The Global Soil Biodiversity Atlas provides information on soil biodiversity on a global scale. It is composed of the contributions made by over 100 experts from 29 countries. The book contains several photographs to support the core messages presented by the contributors.

Global Soil Biodiversity Atlas will be launched at a symposium on symposium: Global Soil Biodiversity: A Common Ground for Sustainability in Washington D. C on February 14, 2016.

More information available at:
<https://globalsoilbiodiversity.org/>

The Australian Soil Classification



The Australian Soil Classification provides a framework for organizing knowledge about Australian soils by allocating soils to classes via a key. Since its publication in 1996, this book has been widely adopted and formally endorsed as the official national system. It has provided a means of communication among scientists and land managers and has proven to be of particular value in land resource survey and research programs, environmental studies and education.

More information available at:
<http://www.publish.csiro.au/pid/7428.htm>

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