ISTROINFO NEWSLETTER of the International Soil Tillage Research Organisation

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It is spring time in the Northern Hemisphere, which means it is time for tillage, seeding, fertilization etc. The farmers are busy as ever and the roads near my countryside home in Denmark has been filled with large tractors pulling 50 Mg slurry tankers etc. Unfortunately, we have experienced a very wet spring, which has delayed seeding and forced many farmers to do their field work in too wet conditions. The results are visible as deep tracks in the fields. compaction induced drainage problems, poor quality of tillage, and poor crop establishment. Springtime has, for me, turned into a yearly eye(re)opener on the tillage and field traffic challenges in present farming and the need for finding sustainable solutions to the problems. Research is clearly needed to improve our understanding of soil processes in relation to tillage and field traffic. There is also a strong need for stakeholder involvement in finding durable solutions to the problems.

As part of the EU funded RECARE project (www.recare-hub.eu) stakeholders are engaged in finding solutions to soil threat problems. Yesterday (May 3, 2016), my colleague, Per Schjønning, invited different stakeholders (farmers, contractors, advisors, NGOs, agricultural machinery manufacturers and regulation authorities) to discuss the soil compaction problem and ways to solve the problem. The day ended in the field where the consequences of heavy field traffic and ways to reduce the problems were demonstrated to the workshop participants and other guests as shown below:



Overview photo of the demonstration site (photo by Jens Bonderup Kjeldsen).



ISTRO member, Mathias Stettler (at right) demonstrates soil stress measurements under wheels/tracks at different depths (photo by Janne Hansen).



Tractor plus slurry tanker (>50 Mg in total) approaching the area where soil stress is being measured (photo by Martin Thorsøe).

₩ New Editor-in-Chief for Soil & Tillage Research

A few months ago Dr. Dante Pinochet was appointed as Co-Editor-in-Chief for Soil & Tillage Research.



Dr. Pinochet is an Agronomist (1984), Magister in Agricultural and Livestock Sciences with specialization in Soil Fertility (1987) from Pontifical Catholic University of Chile and Doctor of Philosophy in Soil Science at the University of Reading, U.K (1995).

Nowadays, he is the Head of Agriculture Engineering and Soil Science Department from the Faculty of Agricultural Science of the Universidad Austral de Chile, located in Valdivia, South of Chile. He is full a Professor since 2012 and teaches soil fertility and nutrient biogeochemical cycles in agricultural systems. He also works at CISVO which is the Research Centre for Volcanic Soils.

X News on Soil & Tillage Research

At the Nanjing ISTRO conference, Young Wu, Elsevier Publisher of Agriculture & Soil Sciences gave an excellent presentation on journal publishing in general and research trends in Soil & Tillage Research in particular. Overall, Soil & Tillage Research is performing very well and the journal is consistently among the best rated soil science journals worldwide. Key indicators have improved steadily over recent years, i.e. the impact factor has increased from 0.735 in 2000 to 2.622 in 2014.

Young Wu highlighted in her presentation that the geographical spread in contributions is increasing rapidly within soil science. Many more papers are now from countries outside

Western Europe and North America compare to few years ago. United States is still in the lead when it comes to soil science contributions, but is closely followed by China and Brazil. It is also noteworthy that India, Argentina and Iran are on the top 15. The increased geographical spread in contributions is also reflected in the increased geographical spread in editors and members of the editorial board. At the moment the Soil & Tillage Research editors are coming from Australia, USA, Chile and Germany and 18 countries and 6 continents are represented in the Editorial Advisory Board.

Young Wu showed an interesting figure on topics on the rise and fall in Soil & Tillage Research from 2010 to 2014 (see below). It is not surprising that terms like tillage, zero tillage and conservation tillage are very popular - but they are apparently also a bit on the decline. On the other hand, terms like cover crop, soil organic matter, mulching and soil quality are on the rise. This can be interpreted as a growing interest in climate change, soil quality and tillage within a cropping system context.

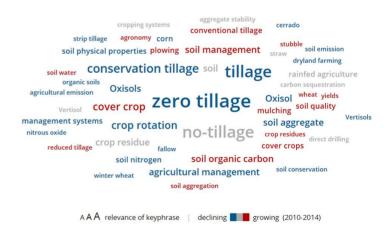


Figure showing trends (2010-2014) in key phrases in Soil & Tillage Research (From Young Wu's presentation at the ISTRO 2015 conference in Nanjing).

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光Upcoming Meetings and Events

International Union of Soil Sciences (IUSS) Presidential elections 2016

Full Nomination documentation should be submitted electronically to Roger Swift by **May 31**, **2016** (Email: r.swift@uq.edu.au). A copy should also be sent to: Sigbert Huber, IUSS Secretary Email: iuss@umweltbundesamt.at

Read more about the position profile statement and required qualifications of nomimees from here: http://www.iuss.org/index.php?article_id=34

June/July, 2016

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-digitalsoil-mapping-workshop-2016/

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

August, 2016

The Third World Conference of World Association of Soil and Water Conservation on "New challenges and strategies of soil and water conservation in the changing world sustainable management of soil and water resources", August 22-26, 2016 in Belgrade, Serbia: http://3rdwaswacconference.sfb.bg.ac.rs/

International Conference on Clean Water, Air & Soil (CleanWAS), August 26 -28, 2016 in Beijing, China: http://www.aconf.org/en-us/conf 64471.html

September, 2016

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

October, 2016

Sustainable Development of Soil and Water Resources in Nile Basin Countries, October 17- 19, 2016, Cairo, Egypt:

http://www.iuss.org/files/nil basin conference brochure.pdf

November/December, 2016

15th International Conference on Soil Micromorphology, November 27 – December 5, 2016 15th Mexico City, Mexico: http://www.icsm.igeologia.unam.mx/

Soil, a Balancing Act Downunder, December 12-16, 2016 Queenstown New Zealand: http://www.nzsssconference.co.nz/call-for-abstracts/instructions-themes.html

June 2017

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

August 2018

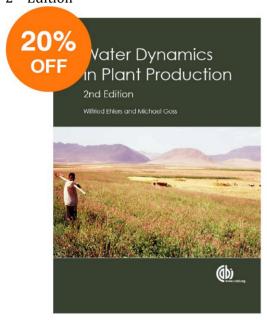
21st World Congress of Soil Science (WCSS) on the theme: "Soils to feed and fuel the world". August 12-17, 2018 in Rio de Janiero, Brazil: http://21wcss.org/

2018 21st ISTRO Conference, Paris, France

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X New Book by ISTRO Members

Water Dynamics in Plant Production 2nd Edition



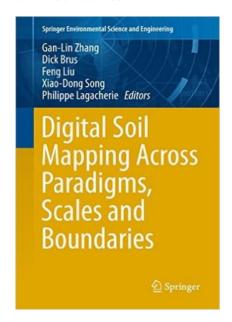
This new edition of Water Dynamics in Plant Production focuses on the dynamics of water through the hydrologic cycle and the associated mechanisms that plants employ to optimize growth and development. It describes the basic scientific principles of water transport in the soil-plant atmosphere continuum, and explains the linkage between transpirational water use and dry matter production. Paying particular attention to the various agronomic strategies for adaptation to climate-driven limitations of water resources, the efficiency of water use in plant production and in achieving an economic yield is presented in detail. This book offers a multidisciplinary introduction to the fundamentals and applications of water dynamics in natural and managed ecosystems. Including text boxes throughout, as well as online supplementary material, it provides an essential state of-the-art resource for students and researchers of soil and plant science, hydrology and agronomy.

To order a copy at a **20% discount** enter the code **CCWDPP20** at the online checkout:

http://www.cabi.org/bookshop/book/9781780643 816

₩Other Books

Digital Soil Mapping Across Paradigms, Scales and Boundaries



More information about book: http://www.springer.com/de/book/978981100414

The Soil as a Reactor: Modelling Processes in the Soil

by Joerg Richter (Author) (CATENA paperback) EUR 19.50 – **special rate EUR 10.00**

Models for Processes in the Soil: Programs and Exercises

by R. Anlauf et al., coordinated by J. Richter, Braunschweig CATENA paperback + Diskette EUR 34.00 – **special rate EUR 10.00**

Landscape Ecology - Geomorphology

by H. Rohdenburg, Braunschweig CATENA paperback EUR 22.50 – **special rate EUR 10.00**