ISTRO INFO
NEWSLETTER
of the
International Soil Tillage Research Organisation

Issue: March 2012

Blair McKenzie

There is now a long established tradition of ISTRO communicating with members by email. Until the last issue I have sent ISTROINFO using the bcc rather than the cc function. I have done this in an attempt to maintain the privacy of members email addresses. However as spam and other filters have improved a steadily increasing number of members have had problems with receiving such email. For the last (December 2011) issue I used the cc function and emailed ISTRO to members in groups. This seems to have resulted in far fewer email problems. No-one has contacted me to complain about their email address being seen by a limited number of fellow ISTRO members (whose names start with the same letter). In future I propose to continue emailing ISTROINFO to members by this method.

Thank you to several members including Alan Franzluebbers for correcting my error in the last issue and pointing out that the 1997 meeting was not in Fort Worth but in Pulawy, Poland. While several people have the proceedings in hard copy and could potentially spend time scanning the document, I'm still hoping that someone will already have a word or pdf version. I'm also still hoping to find an electronic version of the proceedings of the 1985 meeting in Guelph.

As the next item indicates, elections for the ISTRO board elections are under way. It is good news that ISTRO has members who are willing and able to contribute their time and energy to help make ISTRO a better organisation for all of us. I commend and thank all of those who have nominated for their preparedness to contribute.

⌘ ISTRO Board election update

ISTRO 2012 election ballots were distributed by Secretary General Dr. Doug Karlen to all members in good financial standing during the last week of March. The ballots were sent in Word 2007 format so if you are having trouble opening them, please contact Dr. Karlen and he will send you a Word 2003 version. (see www.istro.org for contact details). The voting period will be open until May 15, 2012 so please return your votes as soon as possible.

For the ISTRO Board, there are four candidates: Drs. Daniel Jorajuria, Jose A. Terra, Peter Weisskopf, and Lars J. Munkholm who have been nominated for a six-year term. ISTRO members are asked to vote for TWO of these candidates. The ballot also lists three persons who the Nominating Committee has selected and for whom they simply ask for your agreement on through a vote of affirmation. This includes Dr. John Fielke who is being reappointed for a 3-year term on the ISTRO Board to restore our standard rotation of having two candidates rotate off every three years. The second affirmation vote is for Dr. Stephen A. Prior, who has been selected as the in-coming ISTRO Treasurer. Steve will work with our current Treasurer, Dr. Allen Torbert, until the 20th Triennial ISTRO meeting in Nanjing, China when he will assume all of the duties. The final vote of affirmation is for Professor Dr. Jean Roger-Estrade, who is currently serving on the ISTRO Board but will also assume the duties of in-coming ISTRO President in preparation for the 21st ISTRO Triennial Conference in 2018.

Finally, Dr. Karlen has encountered some email problems when the ballots were sent to all members in good financial standing. On the final page of this issue are two lists. The first list below contains members who do not have email addresses on file with our Treasurer, Dr. Torbert. The second list contains those names for who the Email containing the ballot bounced back. If you know any of these members and have correct Email contact information, please send it to Dr. Karlen so that an election ballot can be sent to every eligible member. If you receive ISTROINFO but have not received ballot papers then your membership may have lapsed. Please contact the Treasurer, Dr Torbert to bring your membership dues up to date.

⌘ 19th ISTRO Conference Montevideo Uruguay

http://www.congresos-rohr.com/istro2012/

24 - 28 September, 2012 Radisson Victoria Plaza Hotel in Montevideo, Uruguay. For information about the conference itself (excluding accommodation and tours) the conference secretariat can be contacted at istro2012@congresos-rohr.com

Registration is open: Those wishing to attend 19th ISTRO conference are urged to register promptly as there are discounts for early registration and penalties for late registration.

EXTENDED ABSTRACTS NOW DUE BY APRIL 30 AND PUBLICATION STRATEGY

All abstracts sent for oral presentation should be followed by a written paper of around 6 pages by April 30. This deadline is also fixed to ensure sufficient time for editing and compiling the conference proceedings into CD format. Those intending poster presentations may submit extended 6-page abstracts to be included in the proceedings, but they are not obliged to do so. At least one author per abstract shall be registered for the conference and have paid conference registration.

Before 1 May 2012 the Scientific Committee will invite authors of selected abstracts to send a full paper for publication in a special issue of AGROCIENCIA Journal. Invited manuscripts for the journal will undergo the normal refereeing system see:
http://www.fagro.edu.uy/agrociencia/index.html

Accommodation update: The conference is being held at the Radisson Hotel where accommodation is available. On the conference website there are a range of hotels and other accommodation options provided – something to suit every budget. For help with accommodation or with booking the pre and post conference tours please contact:
hotel-tours@congresos-rohr.com

Pre-Conference tour

The deadline for booking the pre- and post-conference tours is August 1 with final confirmation by August 10. While these deadlines allow sufficient time to make arrangements early bookings are welcome.

More detailed information, costs and booking information on the conference website

Day 1 – Monday 18 - BUENOS AIRES.
Arrival to Buenos Aires and accommodation in downtown and an opportunity to rest or start to experience Buenos Aires.

Day 2 – Tuesday 18 - BUENOS AIRES
City tour of Buenos Aires, including traditional areas. Visit the Plaza de Mayo, gathering place for popular rallies, lunch in one of the excellent restaurant and in the evening a spectacular Tango show.

Day 3 – Wednesday 19 - BUENOS AIRES/PERGAMINO/MELINCUE
Into the Pampas - Argentina's grain belt. Arrival to INTA (National Institute of Agricultural Technology) Reseach center in Pergamino. INTA has resarch centers scattered all over the country, where research and advisory is done with emphasis in the local production issues. Inspection of the facilities and discussions with the different experts, regarding soils, crops, diseases and technology. After lunch, visit a farm in the area of Salto. Trip to Melincue for overnight.

Day 4 – Thursday 20 - MELINCUE/GENERAL VILLEGAS
The areas of Chanar Ladeado and onto the area of General Villegas in the Center West of the province of Buenos Aires, area of sandy soils and traditionally dedicated to cattle, until a few years ago. Now with the adoption of no till agriculture, GM crops and

herbicides these regions have become suitable for agriculture with erosion risk minimised.

Day 5 – Friday 21 - GENERAL VILLEGAS (DA)
Full day technical visits related to production of grain and cattle in the area, including INTA in General Villegas and a local farmer.

Day 6 – Saturday 22 - GRAL. VILLEGAS BUENOS AIRES
Before returning to Buenos Aires, we will make one last visit in the area. Lunch. Return to Buenos Aires, where we will arrive in the evening hours. Check into our hotel .

Day 7 – Sunday 23 - BUENOS AIRES/MONTEVIDEO
Check out y transfer to the port to get on the ferry to Montevideo.

Post-conference tour
More detailed information, costs and booking information on the conference website

Day 1 - Saturday 29 Sept. - Departure to Soriano (Dolores region) Visit one of the typical agriculture regions in the country with continuous no tillage in double cropping systems. Soil erosion control, precision farming strategies and crop-pasture rotations.

Day 2 - Sunday 30 Sept. - Paysandú to Tacuarembó Visit Dr. Mario A. Cassinoni Research Center. Crop-pasture rotation and tillage systems. Cover crops and integrated alternatives to bio-ethanol production.

Day 3 - Monday 1 Oct. - Tacuarembó and Rivera areas (north of Uruguay) Forest production systems. Watershed management. Soil management systems: effects on wood production and soil quality.

Day 4 - Tuesday 2 Oct Livramento to Santa María (Brazil) Visit to Santa María University - Soil physics lab. Crop and soil management in the sub-tropics.

Day 5 - Wednesday 3 Oct. Passo Fundo
Visit to EMBRAPA-Wheat Research Center. No till systems for wheat and soybeans. Soil management and crop rotation alternatives. Cover crops management.

Day 6 - Thursday 4 Oct. Departure Passo Fundo to Foz, Iguazú Falls

Day 7 - Friday 5 Oct. -Foz
Iguazú Falls"touristic day and tour
Accommodation in Foz (Brazilian side of the falls)

Day 8 - Saturday 6 Oct. Last day return to Montevideo lunch en route)

Day 9th - Sunday 7th October
Accommodation hotel in Montevideo

⌘ Scholarships for young researchers to attend the conference

There were 16 applications for scholarships to attend the 19th ISTRO conference. The committee have reviewed all the applications and made the difficult selections. The successful applicants come from China, Ethiopia, Iran and Spain. Congratulations to them.

We know those unsuccessful candidates will be disappointed but hope that they can investigate and access other funding to make their participation possible.

Comments on the book Soils and Climate Change by M Kutilek

By Elke Johanna Noellemeyer
Soil Science, Facultad de Agronomía
Universidad Nacional de La Pampa
Santa Rosa, Argentina

I would like to congratulate the author and the editorial board for publishing this controversial review with which I agree in various aspects. First of all, I welcomed the return to strictly scientific criteria the author applied without falling into the temptation of being in line with the majority trend. Soil science needs a more basic scientific approach to deal with the complexity of the processes that govern the biogeochemical cycles, and to create the necessary knowledge base for developing new management principles that promise a more sustainable use of soils for agricultural production. Perhaps it is necessary that soil scientists be more aware of the unique nature of the object of study, for further reading I suggest a very interesting discussion of the nature of soil science (Churchman, 2010). Secondly, the dominating discussion on global warming and CO2 emissions from soils detract the attention of research in soil science from urgent issues that are proper to our science such as the need for developing agronomic practices that preserve or even augment SOM in global circumstances that put increasing productive pressures on soils. Desertification of arable lands is not a consequence of global warming or other biophysical factors, but within our climate era it is much more related to global socio-economic forces.

Thirdly, carbon losses from soils through excessive mineralization rates due to inappropriate agricultural practices cause more harm to the terrestrial ecosystem (and the socio-economic system) integrity by disrupting vital functions of soils, than the increase in atmospheric CO2 levels that might be associated to soil deterioration in mismanaged agricultural systems. After all, there is a wealth of knowledge on SOM management published, but how about the adoption of conservation practices? Do we appeal to global warming and the prevention of increased CO2 levels only because we feel that this would justify our work per se, and perhaps through international government actions, while we distrust or lost communications with our closest stakeholders, the farmers, peasants, campesinos and subsistence farming households? This raises another important question for science: why do we research a certain topic and how to we approach this topic. Both have to do with the social responsibility of science which ultimately should search for improving the condition of mankind in general, and the society we live in in particular. As cited in Hartemink and McBratney's reflections about the apparent decline and future renaissance of soil science (Hartemink and McBratney, 2008), Prof. Dennis Greenland wrote the following in the early 1990s: "…soil scientists have also been frustrated as their advice has gone apparently unheeded. This may be because the advice is couched in terms more easily understood by other soil scientists than by politicians and economists who control the disposition of land. If soil science is to serve society fully it is essential that its arguments are presented in terms readily understood by all and with both scientific and economic rigor so that they are not easily refuted."

As Kutilek proved so expertly that the motivation of reducing CO2 emissions in order to save mankind from a climatic disaster is false and completely unnecessary, we have to look for better goals for our scientific work. In this sense I propose that we as a scientific community should be more connected to the context in which our results may result in real improvements of livelihoods and environments. There is still very much to be done if we want to improve the agronomic practices around the world to prevent households from crop failures and famine, farmers from declining incomes, and vast land areas from ecological deterioration. But our discipline has somehow drifted away from its core issues and has been taken up by other sciences, and merged with what is now called natural resource studies. Recently there has been an active discussion on the need to reinforce the teaching of our science (Hartemink and McBratney, 2008) and a warranted concern about the rapid disappearance of soil science as a discipline (Baveye and Jacobson, 2009). Global environmental change is more than just climate change, and specifically soil scientist could play a very important role in elucidating the processes that are vital to conserve the ecosystem services and to predict future changes. Pedology has a great potential to serve as the scientific base for precision agriculture or site-specific agricultural

management, but we need to renew the interest in soil genesis and taxonomy in order to be able to address the challenges.
Baveye, P.C., Jacobson, A.R., 2009. Comment on "A soil science renaissance" by A.E. Hartemink and A. McBratney. Geoderma. 151, 126-127.
Churchman, G.J., 2010. The philosophical status of soil science. Geoderma. 157, 214-221.
Hartemink, A.E., McBratney, A., 2008. A soil science renaissance. Geoderma. 148, 123-129.
Kutílek, M., 2011. Soils and climate change. Soil and Tillage Research. 117, 1-7.

⌘ Report on Nordic Association of Agricultural Scientist seminar number 448

NJF seminar 448. Soil compaction – effects on soil functions and strategies for prevention 6 - 8 March, 2012 the House of Science and Letters (Tieteiden talo), Helsinki, Finland

This was the first seminar of the Nordic Association of Agricultural Sciences that I have attended. Because the topic is so closely aligned with ISTRO and our working group B Subsoil compaction it was not surprising that to me the meeting had a strong ISTRO flavour. I gave counting the number of ISTRO members participating – but I think around half the nearly 50 participants are active ISTRO members. Laura Alakukku and her team did a super job of organising everything so that things ran nicely to time while leaving space for formal and informal discussion.
The meeting started after lunch with a session on societal concern and upcoming regulations. Em Prof Johan Bouma set the scene describing the 7 functions or services that the EU recognises the soil provides. This was followed by an update on the EU soil strategy from Anna-Maija Pajukallio from the Ministry of Environment, Finland. The session then had 2 presentations on compaction risk by Per Schjønning and Mads Troldborg. Session 2 covered the compaction process with presentations from Thomas Keller and Jan van den Akker and finished with 3 minute summaries of the poster presentations.
Wednesday morning started considering the influence of compaction on soil functions for crop production with Jerzy Lipiec setting the scene before presentations on crop sensitivities and responses by Johan Arvidsson, Endla Reintam and Cecilia Palmborg. The remainder of Wednesday involved a series of presentations and discussion on environmental impacts to soil functions in response to soil compaction. These covered the diversity of from impacts on solute transport (Nick Jarvis), the persistence of compaction effects (Mathiue Lamandé) through to erosion, pore continuity, gas exchange and nutrient stratification before finishing with Janne Aalborg Nielsen describing examples of getting the compaction message through to farmers and Lars Munkholm relating compaction and visual assessment of subsoil structure.
The excellent seminar dinner was held at a Finnish restaurant located on a small peninsula jutting into a frozen lake in Helsinki. The seminar tradition of humour was delivered by former ISTRO board member Trond Børresen before a walk back through the snow to our hotels.
The final morning got underway with Peter Weisskopf considering strategies to prevent compaction with examples from Switzerland that lead into presentations on the Terranimo model and its potential use as a web based tool (Poul Lassen and Matthias Stettler). Talks on prevention strategies including tracks, subsoiling and drainage completed the presentations before the meeting outcomes were nicely brought together by Prof Bouma. For me the take home message was that not only services such as food production and filtering and storing water that the soil provides are adversely affected by soil compaction. Other services the soil delivers in preserving biodiversity, storing carbon and even amenity and cultural values for communities are threatened by (sub-) soil compaction. Thanks again to Laura and her team.

ISTRO sponsored and other related meetings forthcoming

⌘ Second Human Impacts on Soil Quality Attributes in (Semi-) Arid Regions

I have received confirmation from the organizing committee that this meeting will not go ahead as planned. A range of internal and external factors have led to this delay including the number of other concurrent meetings and some problems with costs and travel arrangements. All those who had registered have been contacted and fees refunded.

As the first HISQA meeting in 2005 was very successful the organizers plan to reschedule this follow up conference for a date to be decided probably in 2014.

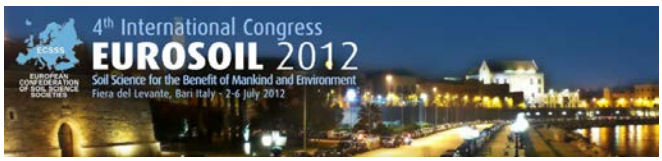
⌘ EGU

The European Geophysical Union meeting in Vienna, Austria from 22-27 April 2012 has several sessions that may be of interest to ISTRO members.

SSS11.4: The wheel effect on agriculture soils: experimental assessment in climatic changes conditions, with Pieranna Servadio as convener and Thomas Keller as co-convener. You will find more info on the session here: http://meetingorganizer.copernicus.org/EGU2012/session/9893

SSS5.5: Subsoil compaction - tools for quantifying and verifying changes in soil functions. The session focuses on soil protection strategies to prevent subsoil compaction caused by harmful mechanical loading. The convenors Stephan Peth and Alexander Zink aim to bring experts and scientists from various disciplines together to discuss new approaches for assessment of subsoil compaction, identification parameters, adequate threshold values and the verification of soil degradation (including legislation). http://meetingorganizer.copernicus.org/EGU2012/session/9882

⌘ Eurosoil 2012



The 4th International Congress of the European Confederation of Soil Science Societies (ECSSS) will be held in Bari, Italy, from 2 to 6 July 2012, organized by the Italian Society of Soil Science (SISS). The Congress, to be held at the University of Bari, will focus on and develop the various aspects of fundamental and applied soil science and technology, field approaches and social, economical and political implications in relation to the present and future needs and emergencies of mankind and environment. Any interested person should see the congress website (www.eurosoil2012.eu)

ISTRO members may be particularly interested in the 3rd main topic "Land Degradation" and in particular that Julia and Annika Badorreck are convening symposium S3.5 on "Soil Deformation".

The session will focus on soil deformations (compressive, shear), their effect on soil functions, their acquisition with approved and new field and laboratory methods and their preventions and alleviation. The session description can be found at:

The session description can be found at: http://www.eurosoil2012.eu/d/33/3.Land_Degradation/ and to submit and abstract for this session please visit the congress website http://www.eurosoil2012.eu/d/54/Call_for_Abstracts/

International Society for Root Research

ISRR
International Society of Root Research

26 –29 June 2012 Dundee UK

Early bird registration open until April 10

Keynote speakers include Jonathan Lynch, Malcolm Bennett Michelle watt, Philippe Hinsinger, Bob Sharp, Fusuo Zhang, Heljä-Sisko Helmisaari and Peter Gregory, and Jun Abe. Updates and more information on the ISRR website (www.rootresearch.org/meetings/isrr2012)

Programme includes
Plenary session: Roots of the Second Green Revolution.
Other sessions:
Genes, traits and environment
Root-soil interactions
Environmental impact and carbon cycling
Root function and uptake
Exudates
Hostile conditions
Evolutions and function of root structures
Root-microbe interactions
Roots in the field
Roots and changing environments
Roots for future sustainable production

Registration available on line.

Joint **ASSSI and NZSSS Soil Science Conference**

Wrest Point Hotel and
Convention Centre, Hobart, Tasmania, Australia, 2-7 December 2012 (www.soilscience2012.com)
Preconference tour
Conference topics
Soil philosophy, soil education and the future of soil
Soil carbon and climate change
Pedology, soil stratigraphy and Quaternary landscape history
New techniques in soil spatial analysis
Soils and infrastructure developments
Soil fertility and soil contaminants
The living soil
Soil and land degradation
The physical soil
Forensic soil science

Call for papers now open

ISTRO INFO is the newsletter of the **International Soil Tillage Research Organisation**. (www.istro.org).

For more information, please contact: Dr. Blair M. McKenzie**,** Assistant Secretary General, ISTRO, the James Hutton Institute, Invergowrie, Dundee, DD2 5DA, UK.

Returned emails

BELGIUM	Verbrugge	Prof Dr Ir	J.C.
BOSNIA and HERZEGOVINA	Komljenovic	Dr.	Ilija S.
BOTSWANA	Kayombo	Dr.	B.
BRAZIL	Rossato	Mr.	Roberto
Chile	Dörner	Mr.	Jose
CZECH REPUBLIC	Badalíková	Ing.	Barbora
CZECH REPUBLIC	Hamplová	RNDr.	Marcela
ESTONIA	Sepp	MSc	Karli
GERMANY	Zhao		Ying
GHANA	Mensah	Mr.	Ebenzer
HUNGARY	Szabó	Dr.	Lajos (Sz)

No email address held

Country	**Name**	**Title**	**First Name**
KENYA	Mkomwa	Eng.	Saidi
KENYA	Tuitoek	Mr.	Nehemiah Kiplagat
U.S.A.	Larson	Prof.	W.E.
IRAN	Morshedizad	PhD student	Mohsen
ESTONIA	Müüripeal	MSc.Eng.	Mait
Ukraine	Gordienko	Prof. Dr.	Vladimir
UKRAINE	Malienko	Dr.	Anatoly
FINLAND	Heinonen	Prof Emer	R.
FRANCE	Boiffin	Dr.	J.C.
GERMANY	Grahmann		Kathrin
SWEDEN	Tortensson	Prof.	Emer G
THE NETHERLANDS	Kuipers	Prof.	H.

IRAN	Besalatpour	PhD student	Asghar
IRAN	Sepehri	Assist. Prof. Soil Scientist	Mozhgan
IRAN	Sadeghi	Assist. Prof. Farm Machinery	Morteza
IRAN	Mosaddeghi	Assoc. Prof. Soil Scientist	Mohammad Reza
IRAN	Nourbakhsh	Prof. Soil Scientist	Farshid
IRAN	Khademi	Prof. Soil Scientist	Hossein
IRAN	Hemmat	Prof.	Abbas
IRAN	Khoshgoftarmanesh	Assoc. Prof. Soil Scientist	Amir Hossein
ITALY	De Giorgio	Dr.	D.
MEXICO	Cadena Zapata	Dr.	Martin
MEXICO	Cadena Zapata	Dr.	Martin
Nigeria	Kudabo	Engr.	E.A.
Nigeria	Mamman	Dr.	Eli
Nigeria	Iya	Engr. (Dr.)	S.
Nigeria	Obiakor	Engr.	S.I.
Nigeria	Ilegoma	Mr.	Kent Segun
Nigeria	Kasali	Engr.	M.Y.
Nigeria	Ojeniyi	Prof. (Dr.)	S.O.
Nigeria	Ojeniyi	Prof. (Dr.)	S.O.
POLAND	Jedruszczak	Prof.	Maria
Slovak Republic	Kovác	Doc. Ing., CSc	Karol
SOUTH AFRICA	Hoffman	Dr.	Josias Eduard
SOUTH AFRICA	Hoffman	Dr.	Josias Eduard
SWEDEN	Etana	Dr.	Ararso
SWEDEN	Rydberg	Mr.	Tomas
SWITZERLAND	Oberholzer	Dr.	H.R.
TURKEY	Özalp	Mach.Engineer	A.Mümtaz
TURKEY	Özgöz	Asst.Prof.Dr.	Engin
UKRAINE	Kapshtyk	Dr.	Mikchailo Vasiliovich
UNITED KINGDOM	Godwin	Prof.	R.J.
URUGUAY	Marchesi	Ms.	Claudia E.