

Blair McKenzie

☞ **ISTRO joins the Global Soil Partnership** (<http://www.fao.org/globalsoilpartnership>)

Background

ISTRO is a partner in the Global Soil Programme. So, what is the GSP? To ISTRO members there is no need to emphasise the importance of soils and their management for food security, provision of fibre and fuel, ecosystem services, and impact on climate change and to state how important soils are for the Millennium Development Goals. Despite this importance many of the international treaties have overlooked the importance of soil and relegated soil resources to second-tier priority and no international governance body exists that advocates for and coordinates initiatives to ensure that knowledge and recognition of soils are appropriately represented in global change dialogues and decision making processes.

On the basis of a recommendation by FAO's High-Level External Committee (HLEC) on the Millennium Development Goals to the Director-General FAO and through discussions and conclusions from the 22nd Committee on Agriculture (COAG), preparatory activities were initiated by FAO to explore the possibility of establishing a Global Soil Partnership according to the recommendations by COAG.

Vision and Mission

The vision of the Global Soil Partnership is to improve global governance of the limited soil resources of the planet in order to guarantee healthy and productive soils for a food secure world, as well as sustain other essential ecosystem services on which our livelihoods and societies depend including water regulation and supply of clean water, climate regulation, biodiversity conservation and cultural services.

The mission of the GSP is to develop capacities, build on best available science, and facilitate/contribute to the exchange of knowledge and technologies among stakeholders, existing multilateral environmental agreements, and technical and scientific bodies of a similar nature,

for sustainable management of soil resources at all levels with a view to enhancing food security, protecting ecosystem services, and in this way contributing to poverty alleviation in an era of global demographic growth and unsustainable consumption patterns.

The Global Soil Partnership is a voluntary initiative and does not create any legally binding rights or obligations between or among its members or any other entities under domestic or international law.

Objectives

Through enhanced and applied knowledge about soil resources as well as a harmonization process, the Global Soil Partnership will:

- Create and promote awareness among all type of stakeholders (scientists, decision/policy makers, land managers, civil society, etc.) that healthy soils and sustainable soil management are the precondition for human well-being and economic welfare and therefore play the key role for sustainable development;
- Address critical soil issues that are globally and regionally relevant for sustaining the provisioning services through soils, in particular towards increasing food security, enhancing climate change adaptation and mitigation, preventing groundwater pollution and through sustaining their regulating and supporting ecosystem services in a context of global demographic growth;
- Guide soil knowledge and targeted research in accordance with national conditions and needs to address concrete challenges on the ground through a common communication platform, including an Intergovernmental Technical Panel on Soils (ITPS) to provide an authoritative voice on technical and scientific issues;
- Establish an active and effective network for addressing soil cross-cutting issues, including national and international soil health (soil biodiversity) best practices, and ensuring synergies among relevant agricultural, forestry, environmental and human development processes;
- Develop sustainable management strategies for different soils considering their potentials and limitations for different types of uses and taking

into account the wider socio-economic context as well as national needs and policies;

- Promote access to soil information and advocate the need for new soil surveys and data collection especially in those countries where soil information is obsolete and coarse and does not respond to user demands;

- Promote investment and technical cooperation in all related soil issues to address fundamental issues in different regions aimed at sustainable management of soil resources;

- Promote institutional strengthening and capacity development of soil institutions at local, national, regional and interregional levels; and.

- Promote necessary public and governmental awareness on the World Soil Day (December 5th) as established by the International Union of Soil Sciences (IUSS), with a view to its adoption as the World Soil Day by the United Nations General Assembly.

Who can be partners?

The Global Soil Partnership should become an interactive, responsive and voluntary **partnership**, open to governments, institutions and other stakeholders at various levels. The different kinds of partners that will be needed include financial/funding partners, technical/scientific partners, advisory partners, and general partners. These partners could come from any kind of regional and national institutions/organizations working on soils (Governmental Organizations, universities, civil institutions, research centers, soil science societies, UN agencies, NGOs, private companies, farmer associations, donors, etc). Partners by default to the GSP are the FAO member countries who determine FAOs priorities as laid out in the Strategic Framework and Programme of Work and Budget of the Organization and according to the needs and priorities identified in their countries.

Representatives of different GSP partners will meet annually at a GSP Plenary Assembly to review actions of the GSP.

Intergovernmental Technical Panel on Soils (ITPS)

An Intergovernmental Technical Panel on Soils (ITPS) of 27 persons has been formed to provide scientific and technical advice on global soil issues. The ITPS is a core component of the GSP and has been formally established by the FAO Council according to FAO's rules and procedures. Members of the ITPS will serve for an initial term of 2 years renewable for 1 additional term. Members of the panel act in their personal capacity, not receive instructions from any government or other institution, and provide the best possible scientific and technical knowledge available.

The important thing for ISTRO members to note is that while it is the national members of the FAO (i.e. each country) who decide who is on the panel any partner (including ISTRO) can nominate persons to be considered for panel membership.

Membership of the panel is by regional with 5 from Africa, 5 from Europe, 5 from Asia 5 from Latin America and the Caribbean, 3 from the Near East, 2 from Northern America and 2 from the South West Pacific.

The ITPS will advise the GSP and FAO itself as well provide an authoritative technical voice on global soil issues, including to other relevant conventions.

Names and information about the current members of the ITPS can be found at the website (<http://www.fao.org/globalsoilpartnership/intergovernmental-technical-panel-on-soils/itps-experts/en/>)

Pillars

The GSP addresses 5 main pillars of action:

1. Promote sustainable management of soil resources for soil protection, conservation and sustainable productivity.
2. Encourage investment, technical cooperation, policy, education awareness and extension in soils.
3. Promote targeted soil research and development focusing on identified gaps and priorities and synergies with related productive, environmental and social development actions.

4. Enhance the quantity and quality of soil data and information: data collection (generation), analysis, validation, reporting, monitoring and integration with other disciplines;

5. Harmonization of methods, measurements and indicators for the sustainable management and protection of soil resources.

Comment

Most of the above comes from material that was available at the Plenary Assembly held at the FAO in Rome on 11-12 June 2013. As Secretary Doug Karlen was unable to attend I (Blair McKenzie) attended as an ISTRO representative. Fortunately I was able to do this without cost to ISTRO. My personal comments from that assembly and the understanding I have developed about GSP is that there are good reasons for ISTRO to be a member. The 5 pillars that are listed above are to me totally consistent with the goals of ISTRO. Being a member we are seen in the company of other societies including many national soil science societies, universities, CGIAR centres etc. There is no cost to our being a member (but similarly there is no access to finances).

One key point is that although membership of the technical panel is decided amongst the nations comprising the various FAO regions, any partner can make nominations. I am a soil scientist, but I know that many people who are not soil scientists are involved in activities related to the 5 pillars e.g. sustainable management of soil resources. Of the 27 current panel members – most are soil scientists. Two have training as agricultural engineers and 1 as an agronomy engineer. As far as I can determine none of the current 27 members is (yet) an ISTRO member. I think that ISTRO can play a role with future nominations to ensure breadth of expertise are maintained on the ITPS.

My one negative from the Plenary meeting was that the selection of ITPS members (from those nominated) was done by the national representatives at FAO – and that meant that there was considerable national interest involved and behind the scenes a lot of political maneuvering occurred. Because ISTRO is a truly international organisation we are likely to be less concerned with the nationality of individual representatives than with e.g. supporting

the 5 pillars and as such I think there may be scope for ISTRO to enhance its reputation.

ISTRO members could encourage their national governments to support the GSP and make ITPS members in their regions aware of ISTRO. More information about the GSP is available at the website address given at the start of this item.

☞ Obituary

Dr Brennan Derry Soane (1930 – 2013): An appreciation



We are sorry to announce the death of Brennan Soane on 1st April 2013 in Edinburgh after several months' illness.

Brennan first discovered the wonder of soil when at primary school. As part of a summer holiday project, he was told by his teacher to go to a wood near his house, dig a hole in the ground and describe what he saw. It so happened that the soil of the area was a classical Podzol. Brennan was fascinated to see how the colours of the "sand" were changing from black to white and then to red-brown and blue when he was digging down. This sparked a lifetime interest in soil.

He graduated from the University of Reading in 1952 and worked in the Division of Soils in South Rhodesia, including surveying duties, from 1952 to 1963. These were eventful years during which he married his beloved wife Christine and completed an MS at Utah State University. He then moved to Scotland to develop the fledgling Soils Section at the National Institute of Agricultural Engineering, Scottish Station at the Bush Estate. Starting from two staff and two empty labs he transformed this into an internationally renowned centre of excellence for studies on the physical management of soils. His work on compaction and no-tillage is highly respected. He initially identified the need for instruments to rapidly assess soil density and penetration resistance and instigated the development of the successful Bush penetrometer and density meter. He then developed work on modelling and measurement of compaction under wheels and led efforts to measure the influence of compaction on crop growth and soil organic matter. His work on field compaction is recognised in the agricultural community as providing a fine stimulus for the adoption of low ground pressure tyres.

Brennan always recognised the potential of others and initiated many collaborative efforts. He spotted an opportunity to build on the efforts of a gathering of European 'Tillage Friends' at Silsoe, UK, in 1970. He became one of the founder members of the International Soil Tillage Research Organisation (ISTRO) and attended the inaugural conference in Uppsala, Sweden. At this time he set up a lifelong friendship with another inaugural member, Cees van Ouwerkerk. With colleagues, they founded the international journal 'Soil & Tillage Research' for which Brennan was one of the reviewers from the founding until 2012 when he decided officially to retire from this work. Brennan's association with ISTRO remained throughout his life. He was President from 1985-1988 and chaired the organising committee of the highly successful 11th International Conference of ISTRO held in Edinburgh, 1988. He continued to attend ISTRO conferences until the 18th meeting in Izmir, Turkey, where he gave a paper on the achievements of five pioneers in the field of soil management in post-war Europe (Soane, 2009). He belongs with these.

Although he retired in 1990, he continued his enthusiasm for science, broadening his base to embrace environmental aspects including climate

change. He published and reviewed papers, taught and examined students and, above all, fostered and encouraged the science and knowledge of others right to the end.

Brennan had great judgement, wisdom and humour – as shown by his memorable after dinner speeches and addresses to the haggis! We have benefitted greatly from these and his publications. His students will ensure that many others will also do so well into the future. Brennan also showed deep compassion. Only a few weeks before his death he had a letter published in the Scotsman newspaper praising the ability of the hospital nursing staff to remain attentive and helpful through long hours and the many demands of patients. All these things are the measure of a great man.

We extend our deepest sympathy to his son Gordon, to Diana his sister and to all family and friends.

Soane, B.D. 2009. A review of the achievements of five pioneers in the field of soil management in post-war Europe. In: Proc. 18th Int. Conf. ISTRO. Izmir, Turkey Paper T1-004.

Bruce C Ball*, Natalya Buchkina and Gordon Spoor

* Corresponding author: SRUC Crop and Soil Systems Research Group, West Mains Road, Edinburgh, EH9 3JG, UK.

News from the Branches

☞ Iranian Branch

Branch President/Chair: Prof. M.A. Hajabbasi

Branch Vice-President: Dr. M.R. Mosaddeghi

Branch Secretary and Treasurer: Dr. M.R. Mosaddeghi

Host Institution: Isfahan University of Technology

Address: College of Agriculture, Isfahan University of Technology, Isfahan 84156-83111, Iran

e-mails: hajabbas@cc.iut.ac.ir & mosaddeghi@cc.iut.ac.ir

Number of Branch Members: 14

Iranian ISTRO Branch with 14 members (soil scientists and specialists in agricultural engineering) from different universities and institutes in Iran are actively working on soil physics, tillage and related subjects. They have had published the outcomes in several high-impact ISI journals:

The main stream of the member's research is mostly problem-oriented. Some research fields are listed below:

1) Fire effects on soil chemical, physical and biological properties in the context of time in rangelands and mountains of central Zagros (Fire is an important disturbing factor in central Zagros but its possible impacts on soil and environment had not been studied).

2) Land use impacts on soil quality attributes, hydraulic properties, aggregate stability, enzyme activity, and physical fractions of soil organic carbon in central Iran (Land use change from rangeland and forest to cultivated land has been accelerated these years).

3) Effect of desert land uses on soil organic matter fractions and carbohydrates (Deserts are important ecological systems in Iran).

4) Soil water availability to plants using LLWR and IWC approaches: their limits have been modified for Iranian (calcareous) soils. The results show that the limits defined for temperate regions might not completely be used for the arid and semi-arid regions with significant plant adaptation to environmental limitations. Also high mechanical impedance is an important restriction for plant growth in the dry range in these soils.

5) Entophyte-assisted symbiosis: might enhance root growth in compact and hard soils, might increase water availability to plants, and might

intensify phytoremediation of petroleum-contaminated soils.

6) Risk assessment of contaminants in the nutrition cycle and human health

7) On-the-go measurement of soil physical and mechanical monitoring towards precision agriculture

8) Easy-accessible indicators for quantifying soil compaction and degradation in central Iran

We are planning to have a branch meeting during our 13th Iranian Soil Science Congress in Ahwaz (www.soilcongress13.ir) in January 28–30 2014.

It was good News to hear that ISTRO have signed up to be a partner of GSP in FAO. We were not familiar with Dr Seyed Kazem Alavi Panah but will contact him in order to be up-to-date and possible collaborations. For sure the Iranian Branch of ISTRO can assist on the sustainable soil management issues in Iran.

☞ Nigerian Branch

Branch President/Chair: Prof. K.C. Oni

Branch Secretary and Treasurer: Dr. Joshua Olaoye

Host Institution: University of Ilorin

Address: Faculty of Engineering and Technology

e-mail: olaoyejo@yahoo.com

Number of Branch Members: >40

The Nigerian Branch is currently the largest ISTRO branch. There is a branch meeting planned for 6th August in the boardroom of Agriculture and Biosystems Engineering, University of Ilorin to plan future activities etc. All branch members are encouraged to attend

It is hoped that in the next issue more of our branches will provide updates on office bearers, research undertaken or ongoing and planned activities.

Reminders of ISTRO meetings

☞ Soil Structure and its functions on ecosystems.

Nanjing 8-10th September 2013

Invited Speakers Confirmed: Five keynote speakers have been confirmed.

Prof. Johan Six, University of California, Davis
<http://www.plantsciences.ucdavis.edu/Agroecology/staff.html>

Prof. Rainer Horn, Institute of Plant Nutrition and Soil Science, Kiel University, Germany
<http://www.soils.uni-kiel.de/deutsch/mitarbeiter/pers-horn.shtml>

Prof. Henry Lin, Institutes of Energy and the Environment, Penn State University, USA

Prof. Yves Le Bissonnais, LISAH, Montpellier, INRA.
<http://www.umr-lisah.fr/index.php?lang=fr&page=staff&doc=CV&ref=144>

Prof. Denis Angers
Agriculture and Agri-food Canada
<http://www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1181927128431&lang=eng>

Important dates

Abstract submission closed on June 30. For the possibility of submitting a late abstract please contact Dr Zhou Hu – details at the end of this item. While early bird registration is closed it is still possible to register.

Organizing Committee

Chinese Academy of Sciences,
Natural Science Foundation of China
Institute of Soil Science, CAS
State Key Lab of Soil and Sustainable Agriculture
International Soil Tillage Research Organization

Scientific program:

Session 1. Quantification of Soil Structure and modeling

Session 2. Formation and Stabilization of Soil Structure: Biotic and Abiotic factors

Session 3. Dynamics of Soil Structure and modeling

Session 4. Soil Structure and its Function on C sequestration

Session 5. Soil Structure and its Function on Hydrological Process and Fertility

Session 6. Soil Structure Stability and its Function on Soil Erosion

Payment method

Bank transfer in US dollars payable to:

Bank: Industrial and Commercial Bank of China, Jiangsu Xuanwu Branch.

Bank address: No. 139 North Hongwu Road, Nanjing, Jiangsu

Swift: ICBKCNBJNJG

Account number: 4301015909914100587

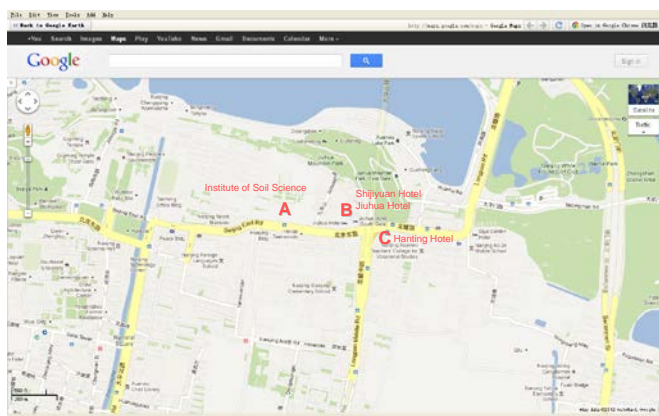
Account Name: Institute of Soil Science, Chinese Academy of Sciences

The bank transfer must indicate the name of the participant and the title of the congress 'Soil Structure2013'. The sender must pay all bank charges. Copy of the bank transfer must be sent by fax (+86-25-8688 1000) or email (soil2013@issas.ac.cn) soon after the registration, otherwise the form cannot be accepted.

More information, abstract submission, accommodation details

See the link to the ISTRO website (www.istro.org).

Note 200m East of the Institute (marked A on the map below) are Shijiyuan Hotel and Hanging Hotel.



Contact Person

Dr. ZHOU Hu

Email: soil2013@issas.ac.cn

Tel: 025 8688 1221

☞ 2nd Soil and Crop Management: Adaptation and Mitigation of Climate Change. Osijek, Croatia 26-28th September 2013

Meeting website and regularly updated information at www.pfos.hr/~hdpot

The Organizing Committee of the Croatia Soil Tillage Research Organization – CROSTRO and International Soil Tillage Research Organization – ISTRO, invites all ISTRO members and other interested to attend on 2nd international scientific conference "Soil and Crop Management: Adaptation and Mitigation of Climate Change" in Osijek, Republic of Croatia, from the 26th to 28th of September, 2013. The official language of the conference will be English. With support from the Faculty of Agriculture, University Josip Juraj Strossmayer in Osijek; Faculty of Agriculture, University of Zagreb and the Agriculture Institute Osijek.

Conference themes will be:

1. Soil tillage and crop management in function of environmental protection
2. Adaptation and mitigation of climate changes in crop production
3. Soil degradation (biotic and abiotic) in agriculture production
4. Good agronomy practice
5. Sustainable production systems for food and bioenergy

At the dawn of mankind, first crop-growers figured out that plant is thriving stronger and yielding more if soil had been tilled. Since then, the soil tillage still has the strongest influence at the environment, modeling and adopting soil for growing crop in a way no other agricultural practices have been done. This 2nd CROSTRO conference, being created as well for scientific as for experts and practitioners, has goal to promote correct agricultural practices, the newest state-of-the-art informatics, bio-technical, environmental and engineering solutions, as well as alternative and inventive approaches in agricultural production, all in attempt to cope with ever-changing environment and ensuring sufficient food and energy resources on sustainable ways.

Registration fee

Registration fee is compulsory for all conference attendances. Registration fees are covering the conference attendance in scientific program, conference book, CD, professional field trip, welcome reception, lunches, coffee break and gala dinner.

Until 1 August fees are:

ISTRO (incl Croatian Branch) members Euro100

Non-members Euro 120

Students Euro 50

Payment instructions and Accommodation instruction

Details about payment instruction and accommodation instruction will be mentioned in the second announcement (second circular) and on web page www.pfos.hr/~hdpot

Register your interest now by emailing hdpot@pfos.hr

☞ 20th Triennial ISTRO Conference. Nanjing, China 14-18th September 2015

Start Planning NOW!

ISTRO President Xinhua Peng has been in contact just reminding us all to keep thinking and planning for the 20th conference in Nanjing. Keep the dates of **14-18 September 2015** in your calendars, diaries etc.

Some major sponsors are in place but good attendance is key to making any event a success.



The date has been chosen to avoid the extreme heat of summer, the cold of winter and provide a time of intense agricultural activity. By announcing these dates early the organising team are hoping that ISTRO members will have time to plan activities.

Practical matters

Travel: There are numerous direct flights into Nanjing e.g. from Frankfurt, Seoul, Tokyo, Hong Kong with more routes opening each year. Connections to and from Beijing are frequent. There are also high speed trains from the Shanghai to Nanjing.

Accommodation: Nanjing has a wide range of international standard hotels with over 40 rated at 5-star and over 60 rated at 4-star. Many of these are located close to the Institute.

Planning for tours either a pre or post conference tour and a mid-week tour is underway. So, put the dates in your diaries, i-pads, tablets etc

☞ Other upcoming meetings

Nordic Association of Agricultural Sciences

Does Climate Change demand a new approach to drainage design?

23-25 September 2013 Norway

<http://www.njf.nu/site/seminarRedirect.asp?intSeminarID=462&p=1004>

VII Iberian Congress of Agricultural Engineering and Horticultural Sciences

26-29 August 2013, Madrid Spain

<http://sechaging-madrid2013.org/index.php?idioma=en>

Several of the sessions should be of particular interest to ISTRO members including: Irrigation engineering, Mechanization, Precision agriculture and information technology, Land Management and environmental engineering, Agro-energetics, energy crops and biomass, Sustainable production and Mechanical harvesting of fruits.



The First International Conference on Global Food Security

organized by Elsevier, from September 29 to October 2nd, 2013 in the Netherlands. The conference aims to deliver state-of-the-art analysis, inspiring visions and innovative research methods arising from interdisciplinary research with the view to ensure that the best science is garnered to support the emergence of the Sustainable Development Goals. The call for abstracts is open until May 10th, 2013.

Website:

<http://globalfoodsecurityconference.com/index.html>

6th African Soil Science Society and 27th Soil Science Society of East Africa Conference
20-25 October 2013 Nakuru Kenya

Transforming Rural Livelihoods in Africa: How can land and water management contribute to enhanced food security and address climate change adaptation and mitigation?

Sub-Themes

- a) Enhancing applications of adaptation and mitigation to climate variability and change
- b) Enhancing the status of human nutrition and food security in Africa through Integrated Soil Fertility Management (ISFM), and small scale irrigation
- c) Exploring options for sustainable intensification and diversification of crop soil livestock systems
- d) Land use planning for sustainable food security and climate change adaptation in Africa
- e) Commercialization aspects in land and water management: Markets and private sector engagement
- f) Scaling, socio-economic and policy options in land and water management
- g) Capacity building in land and water management within the Agricultural Product Value Chains (APVC) approach
- h) Adaption to climate change: Lessons learned and challenges ahead

Policy Forum:

The conference will integrate a policy forum linking scientists and policy makers with the specific objectives of:

- a) Brief review of existing policies with respect to soil management in the ASARECA member countries and AU/NEPAD/CAADP initiatives.
- b) Review with decision makers and/or their advisors impediments (at policy, institutional, market level) for scaling up technologies.
- c) Required actions to improve the situation.

It is expected that representatives from African Union and regional and national research and policy bodies will attend.

Payment and Registration

Early Scientist USD\$ 120 : Late Scientist \$170
Early Students USD \$ 50 : Late Student \$70
Early Registration closes 31 August

The Secretariat, SSSEA/ASSS Conference,
P O Box 14733 – 00800 Nairobi, Kenya
Tel: 254--20-444029/30/31/32 or
444256/4444144/137

Fax: 254--20-4443926/444251

E-mail: soilseakenya@gmail.com.

All cheques to be paid to Soil Science Society of East Africa (SSSEA)



We are pleased to announce the first edition of the International Conference on *Engineering and Applied Sciences Optimization (OPTI 2014)* to be held in Kos Island, Greece on 4-6 June 2014.

The purpose of **OPTI 2014** is to bring together the scientific community working in the broader field of Engineering and Applied Sciences Optimization including problems formulation, computational methods and software development. OPTI 2014 will facilitate the exchange of ideas in topics of mutual interests and will serve as a platform for establishing links between research groups with complementary activities.

OPTI 2014 is organized under the auspices of the International Society for Structural and Multidisciplinary Optimization (ISSMO), Transportation Research Board (TRB), European Community on Computational Methods in Applied Sciences (ECCOMAS), Hellenic Institute of Transportation Engineers (HITE), Greek Association for Computational Mechanics (GRACM) and John Argyris Foundation (JAF).

Key Date: Deadline for presenting a one page abstract is October 31, 2013

Further information is available at URL:
www.opti2014.org

The Proceedings of the conference will be indexed by ScienceDirect and SCOPUS of Elsevier.

Issue: June 2013

20th World Congress of Soil Science Soils Embrace
Life and Universe June 8-13 2014 Jeju Korea
<http://www.20wcss.org/>

Latin America Soil Science Congress, Cuzco
Peru 9-15 November 2014 www.spsc.org.mx

“Soil Science for Future Generations” December 1 –
4 2014 New Zealand Society of Soil Science
Hamilton New Zealand

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

All information contained in this newsletter are © ISTRO and may not be distributed without written permission of the Secretary General, Douglas L. Karlen (doug.karlen@gmail.com), or the Assistant Secretary General, Dr. Blair McKenzie (blair.mckenzie@hutton.ac.uk).

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