

Issue: September/October 2012

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I start this issue of ISTROINFO with congratulations to Oswaldo Ernest and his team for the great job they did in hosting the 19th ISTRO conference in Montevideo. I will return to this theme shortly, because every one that I have spoken with has been very positive about how succesful and how much they enjoyed the meeting. For Oswaldo and his team the hard work is over. For those who attended there is a challenge ahead. That is, to turn the new ideas that we discussed, the different approaches that we debated and the new or renewed connections that we made into something substantial. The Uruguayan team cannot do this for us – we must do it ourselves!

As an example of what active participation in ISTRO conferences can deliver I offer the following example from Lothar Mueller (an active member in the Visual Soil Examination and Evaluation working group) from Germany and former ISTRO board member Mekhlis Suleimenov from Kazakhstan.

At our 18th Triennial ISTRO Conference in Izmir in 2009, these two members initiated the idea for a cooperation project between the Uspanov- Institute for Soil Science and Agrochemistry in Almaty and the Centre for Agricultural Landscape Research in Muencheberg, Germany. They sought funding for a project they titled “Novel measurement and assessment tools for monitoring and management of water and soil resources” from the German Federal Ministry of Education and Research (BMBF) and were successful. The outcomes over the last 3 years have been an extensive exchange of results and ideas between scientists of both countries. This has included scientific workstays, exchange of young scientists, joint landscape excursions, fieldwork and an innovation workshop. Results of this workshop will appear in a joint textbook due out in 2013. The book contains papers about novel methodologies for the evaluation of soil and water resources. Advanced technologies of dryland and irrigation agriculture and soil conservation tillage in Central Asia are included.



ISTRO member Dr. Mekhlis Suleimenov (right) and Dr. A. Kalashnikov (Institute for Water Economy, Taraz) discuss irrigation strategies.

The purpose of ISTRO as described in our constitution is “to stimulate scientific research in the domain of soil tillage and related subjects, and to promote the application of the results of such research in agricultural practice” and to do this by promoting contacts among workers undertaking research; initiating conferences at which related subjects are introduced and discussed; and organizing relevant excursions and demonstrations.

I believe that the best way we can thank Oswaldo and his team is by working together to deliver on the purpose of ISTRO. So let us take up the challenge and turn a successful conference into successful projects, collaborations and scientific output.

I am still receiving news, snippets, personal notes from participants in the Montevideo conference – and I expect that I will be for some time to come. So reports from Uruguay will continue well into the next issue.

☚ Conference field trip

The conference programme of talks and posters is still available on the conference website and the publications from the formal part of the meeting are available. I will dwell on these but as is traditional at ISTRO conferences the Wednesday was devoted to an excursion. This gave participants a taster of some of the field-based agricultural research in Uruguay. We travelled on buses to the impressive INIA research station at La Estanzuela. The station has an area in excess of 1100 ha. Four key experiments were on display. The long-term mixed Crop-Pasture Rotation experiment was started in 1963 and has 7 rotations. All rotations are properly replicated in a complete block design with plot sizes of 0.5ha. The purpose of the experiment has been to study the consequences of different amount of time under pasture. The extremes range from no pasture to a 4-year pasture phase. A major change was instigated in 2008 with no-till practices introduced to the entire experiment. Long-term trends are monitored by annual sampling and the determination of soil organic C, total N, pH, available P and exchangeable K.



Members who were not able to attend the conference will notice that the field trip was blessed with very pleasant spring weather.

The second stop on the tour was to look at work on annual cover crops for improved erosion control, decreased nutrient losses and increased carbon sequestration. Cover crops are terminated before the summer crops of corn or soybean are planted. Covers being tested included oats, annual ryegrass,

Persian, Subterranean and Arrowleaf clovers, common vetch and fodder radish.



Here Jose Terra describes the importance of timing in terminating the cover crops.

Site 3 considered the role of supplementary irrigation. The area of grain crop in South America has increased dramatically in recent years. The scale of the change is staggering with the area of soybean planted in Uruguay going from 9,000ha in 1998 to over 1,000,000ha in 2011! Adoptions of no-till, glyphosate-resistant genotypes and favourable prices have all driven the increase. Soybeans grown as a summer crop are highly dependent on stored soil-water and the possibility of supplementary irrigation to decrease yield variability is a major interest for farmers.



Alongside the dairy paddocks.

The final scientific part of the tour was to examine carbon sequestration in mixed crop-dairy systems.

Dairy farming has also seen intensification in recent years with herd sizes and supplementary feeding increasing. These changes have been possible with decreased cultivation, improvements in pasture and fodder production and feed being imported to the farms. Experiments are underway to understand the consequences for soil carbon dynamics.

After the scientific part of the tour we slowly enjoyed an enormous lunch before heading to the historic town of Colonia – site of the first European settlement in Uruguay. Looking west along the cobbled streets and across the River Plate it was just possible (for those with better eyes than me) to see the tallest buildings of Buenos Aires across the water.



⌘ Secretary General Report to the 13th General Assembly

The General Assembly was held on Thursday, September 27, 2012.

“Congratulations to Oswaldo and the entire planning team from Uruguay for developing and providing all of us with a very successful and interesting 19th Triennial Conference!

I want to thank all of the ISTRO Board members for their service and to let all of you know that we have been quite active since we last met in Izmir, Turkey in 2009. Since that time we: held a mid-congress Board meeting here in Montevideo to meet the 19th ISTRO Conference planning team and to participate in a 3-day scientific meeting on “Soil Property Dynamics under Different Land Uses” that was sponsored by the Uruguayan Society of Soil Science (SUCS) and the Uruguayan ISTRO Branch in Colonia del Sacramento, which many of you visited yesterday on the mid-week tour.

The Board critiqued the 18th Triennial meeting and thanked the members of the ISTRO Branch in Turkey for providing a very successful conference, reviewed mid-Congress finances, ISTRO Branch activities, the ISTRO webpage (managed by Erik van den Elsen in the Netherlands), and relationships with Elsevier regarding our journal – Soil and Tillage Research.

The Board also recognized that our Constitution/By-Laws and member Handbook were dated and did not accurately reflect several of the new ways communication was being handled and decisions were being made. Board members therefore agreed to work on making updates to these documents.”

The ISTRO constitution was written before the advent of communication tools such as email and the internet some revisions are likely to be necessary so that we can operate efficiently in the 21st century. There was insufficient time for all members present to fully discuss the proposals for changes to the constitution at the general assembly. Rather than trying to rush changes through it was decided to circulate the proposal to members in a future issue of ISTROINFO. This would allow all members time to consider any proposed changes.

⌘ Working groups

Talking with some newer members of ISTRO at the Montevideo conference I realised that some were unfamiliar with our ISTRO working groups. They are simply groups of ISTRO members who are interested in exchanging ideas and collaborating on a particular ISTRO-relevant topic. Any ISTRO member is welcome to join any of the working groups (there is no cost) and can do so simply by contacting the Chair or Secretary of that working group. Working groups may be formed for a particular purpose and duration or may be on-going. Currently there are three active working groups.

Working group B Subsoil compaction has Chair Thomas Keller (thomas.keller@art.admin.ch) and secretary Mathieu Lamande (mathieu.lamande@agrsci.dk).

Working group F Visual Soil Examination and Evaluation has Chair Bruce Ball (bruce.ball@sac.ac.uk) and secretary Lars Munkholm (lars.munkholm@agrsci.dk). Note however that Bruce will step down as chair in September 2013 and Rachel Guimaraes (rachelguimaraes@utfpr.edu.br) will become the new chair. You can see video clips of Bruce and Rachel describing Visual Soil Evaluation at www.sruc.ac.uk/vess

Working group K Controlled Traffic Farming is organised by Tim Chamen (Tim.Chamen@btconnect.com). This group runs its own website (linked to the main ISTRO website) at www.controlledtrafficfarming.com with reports, newsletters and links to their own facebook page.

There has been a working group on Tillage Erosion that is currently in hiatus. Dr Sheng Li (sheng.li@agr.gc.ca) based at the New Brunswick Research Centre of Agriculture and Agri-Food Canada is currently investigating whether there is sufficient interest to re-activate this working group. If ISTRO members want to contribute to the working group on Tillage Erosion they should contact Sheng Li.

Perennial Horticulture: a possible new working group? In Australia I was involved in soil management for temperate perennial crops such as grapevines and stonefruit. Now in the UK I am involved in soil management for raspberries and

blueberries. Having noted that many of the issues for planting, weeding, trellising, harvesting and even irrigating these crops have commonalities I am interested to know whether there are other ISTRO members dealing with perennial crops that would like to exchange ideas on such management. If so, please email me (blair.mckenzie@hutton.ac.uk) and if there are sufficient people we can explore the possibility of establishing a working group.

⌘ Scholarship winners at 19th ISTRO conference

As you will be aware ISTRO sponsored 4 scholarship winners to participate in the Montevideo conference. The photograph below is the award winners with the ISTRO Secretary General and President. From left to right Hu Zhou (China), Innacio (Nacho) Mariscal-Sancho (Spain), Mojtaba Naderi-Boldais (Iran), Secretary-General Doug Karlen, Birhanu Biazin Temesgen (Ethiopia) and ISTRO President Oswaldo Ernst. It was taken at the conference dinner when the winners were formally congratulated.



⌘ New ISTRO board

At the end of the Montevideo conference the new ISTRO board met to start planning for the next 3 years.



From left are Lars Munkholm, President-elect Jean Roger-Estrade, now Past-President Oswaldo Ernest, Jose Terra, Treasurer Allen Torbert, John Fielke, Secretary-General Doug Karlen, Assistant Secretary-General Blair McKenzie and President Xinhua Peng.

⌘ 20th ISTRO Conference Nanjing, China

The 20th ISTRO conference will be in Nanjing, China in 2015. Initial information will be circulated in the next issue of ISTROINFO. Now is the time to start thinking and planning to attend.

⌘ New IUSS President elected

Prof Rainer Horn has been elected as the President of the International Union of Soil Sciences. His term as President-Elect will commence on 1st January, 2013 and go until the end of the 20th World Congress of Soil Science in June 2014 at which stage he will assume the role of President until the end of 2016. Congratulations Rainer.

⌘ Soil & Tillage Research

It is worth reminding members that the journal Soil & Tillage Research was set up by ISTRO in 1981. Publication for the journal is now by Elsevier but there are strong links between ISTRO and Soil & Tillage Research. These links manifest in many ways. One of the most important is that because of the link, Elsevier make an annual financial contribution to ISTRO. All four of the current Editors-in-Chief are members of ISTRO as is most of the editorial board.

Soil & Tillage Research has a current impact factor of 2.425 and a 5-year impact of 2.910; making it the 3 highest ranked of all the soil science related journals.

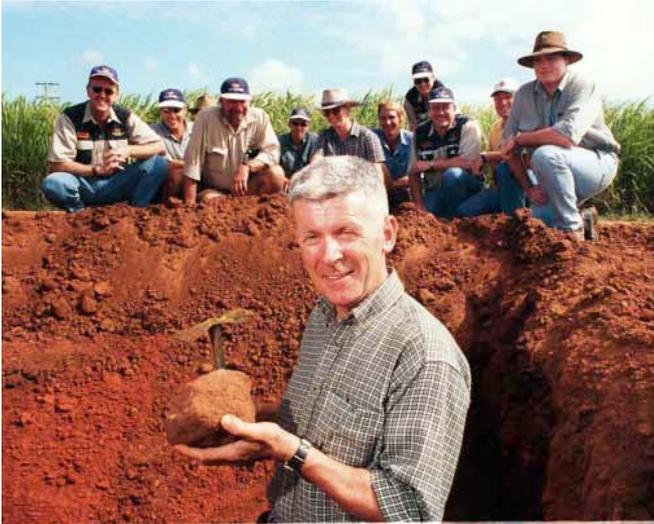
There are 2 current special issues of Soil & Tillage Research that are particularly relevant for ISTRO members

Development of soil structure and functions: How can mechanical and hydraulic approaches contribute to quantify soil structure dynamics? Edited by Rainer Horn and Stephan Peth this was published as Volume 125 pages 1-132 in September 2012. The issue focuses on Interactions in soil between Mechanics-Hydraulics-Biology-Chemistry where in addition to the process understanding extends to include scale effects.

And

Visual Soil Examination and Evaluation special issue with articles in press: edited by Bruce Ball and Lars Munkholm. This special issue resulted from the working group meeting held in Denmark last year and contains 10 papers on different aspects and applications of Visual Examination with authors from Australia, Brazil, Canada, Denmark, France, Germany, Ireland, New Zealand, Russia and the U.K.

☘ Vale Des McGarry



Although born in Glasgow and educated in Scotland, with a PhD from the University of Aberdeen, Des spent all his working life based in Australia.

His first job was in Narrabri, NSW where Des correctly attributed soil compaction from farm machinery as a major cause of a decline in the yields of the cotton. This topic sustained much of his later research. Des moved from Narrabri to Brisbane in the 1980s following his marriage to Usha, another Aberdeen graduate. There, he continued his research into Vertisols and how they are best managed in farming systems. During his employment with the Queensland government, he made many trips overseas to share his knowledge and experience on soil compaction, visiting Tajikistan, Uzbekistan, China and Brazil. He also visited Italy and other countries on projects for the FAO.

Des was devoted to his family and it is recorded that he had three wishes to carry out in life – to take his daughter Meera to a Prince concert, to take her on a pub crawl in Glasgow for her 18th birthday and to go to New Orleans together for her 21st birthday. The first two happened, but a hurricane called Katrina got in the way of the last wish. Des had a cyst removed from beside his heart in the late 1990's and as part of the recovery took up cycling. He migrated from this into running and proudly competed in 10 Gold Coast Marathons before hanging up his competition shoes.

ISTRO members may remember the contribution Des made to the ISTRO Congress held in Brisbane in 2003 and particularly the enthusiastic way in which he led the pre-Congress tour from Sydney to Brisbane.

Des was an intensely private person and also a man of principles, strong principles. Des was not political, but he was fair and respectful and treated everyone as equals. He was great fun to work with in the field. He often had a different viewpoint to others but he had particular rapport with farmers. Anyone who was lucky enough to see Des in a soil pit explaining the soil condition to a group of farmers will never forget the event.

Des found he had cancer while on a field trip in Tajikistan, but in a typical no-fuss style, he didn't tell anyone until the New Year of 2012 because he didn't want to spoil Christmas. Des passed away in August this year. Des will be remembered for his contributions to soil science, the farming sector, the community around him and for his enthusiastic and exuberant approach to soil evaluation in the field. He will be sadly missed by family, friends and colleagues

This obituary has been adapted from the eulogy delivered by Grant Millar at Des's funeral with other material provided by Andrew Biggs, David McKenzie, Don Yule, Blair McKenzie and Tom Batey.

⌘ Upcoming meetings

13th ISSPA (International Symposium on Soil and Plant Analysis 7-12 April 2013 in Queenstown New Zealand.

www.isspa2013.com

IUSS Global Soil C Conference 3-7 June 2013 in Madison USA.

www.iuss.org/index.php?option=com_content&view=article&id=407&Itemid=31

19th ISCO (International Soil Conservation Organisation) Conference 4-15th July 2013 in Medellin, Colombia <http://tucson.ars.ag.gov/isco/index.php>

Soils in Space and Time – Division 1 conference of IUSS 30 September – 4 October 2013 in Ulm, Germany. Contact karl.stahr@uni-hohenheim.de

6th International Nitrogen Conference 18-22 November 2013 in Kampala Uganda
www.N2013.org

⌘ Final comments for this issue

There are still many things to follow up from our 19th conference in Montevideo. More of these will be described and discussed in the next issue. I know there are a number of branches and working groups that are planning activities between now and the 2015 conference in Nanjing. Please, can those who have not already contacted me with information about initial ideas about activities give the board as much advanced warning as possible. This will allow any support from the board to be used most efficiently.

I shall finish where I started by thanking the organisers of the 19th conference, and urging members to build on the goodwill generated at the conference so that we can look forward to having even more to report in Nanjing in 3 years time.

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