

P r o f i l e

The official newsletter of the Australian Society of Soil Science Inc



*Issue 143
August 2006 Part 1*

In this issue

National conference progress report

From the editor

Letters

People

World Congress report

IUSS notes

ASSSI Publication Medal

Soil notes

New books

NATIONAL CONFERENCE PROGRESS REPORT

Cam Grant reports on preparations for the ASSSI/ASPAC/ACMS national soils conference, Adelaide 3-7 December 2006

Things are moving along nicely for a great national soils conference in Adelaide – only 4 months away now! The original call for abstracts closed 31 July and we have received about 180 abstracts. However, numerous people who are away (overseas) on conference-tours or study-tours requested extensions to the deadline so we have pushed the closing date back to **Friday 25 August**. If you have missed the 31 July deadline and still wish to present a paper at the conference, you are welcome to do so. When writing your abstract, please bear in mind the theme for the conference, Soil science solving problems. You can submit your abstract online at the conference home page: <http://www.plevin.com.au/soils2006/welcome.htm>. I think we can still review the abstracts and notify you of acceptance and placement of your paper in the program by early September, as originally planned.

Soil samples needed

One of the mid-conference tours being offered on Tuesday 5 December (which incidentally happens to be International Soil Science Day) is the soil science laboratory workshop, to demonstrate the use and interpretation of state-of-the-art equipment applied in soils research. The coordinators of this workshop want to hear from anyone with interesting soil samples they would agree to have analysed, presented and discussed at this workshop. If you have some particularly interesting soil samples (maximum 10-20 g), contact Ron Smernik (08 8303 7436 or ronald.smernik@adelaide.edu.au) at the University of Adelaide to discuss whether he can use them. I look forward to seeing you in December.

FROM THE EDITOR

I can't quite believe I have offered to take on Profile; it's not as though I am looking for something to do. But Jonnie has done such a good job in building readership that things just don't seem quite right without the newsletter appearing every three months, so I have agreed to take on the job in the interim until another editor leaps into the vacancy. As you will see the design and format is very plain, as I am currently working in Word, not the most flexible software for newsletters. Linda Bennison has played a big role in dividing this 'comeback' issue into three smaller 'issues' so that we meet our legal deposit commitments as a quarterly newsletter. These issues contain an amalgam of older articles that members have been valiantly contributing over the past few months, and more recent information. I have had to edit contributions quite strenuously so that you are not overwhelmed by the backlog, but in future issues I will be more respectful of your contributions. I welcome feedback on ways to improve Profile so that it is useful to you, and easy and enjoyable to read.

Rebecca Lines-Kelly rebecca.lines-kelly@dpi.snw.gov.au

LETTERS

Thank you Neal

Suzie Reichman

After reading Neal Menzies 'From the President' message in issue No 142 of Profile I wanted to write and say thank you to Neal for tackling issues of career and family. It is very heartening to see our president opening and positively addressing these issues and I think Neal's message goes part of the way by itself to ensuring issues surrounding balancing career and family are 'attacked the right way'.

Looking for old books

Cameron Grant

I'm trying to locate two more old books:

1. Van Olphen H (1963) An introduction to clay colloid chemistry (for clay technologists, and soil scientists) Interscience Publishers, Sydney
 2. Lewis GN and Randall M (1961). Thermodynamics, revised by Pitzer KS and Brwer L. McGraw Hill Book Co.
- If anyone can help can they please email me at Cameron.grant@adelaide.edu.au or phone 08 8303 7404.

1968 soil stamp

Jack Holland, j.holland3@pgrad.unimelb.edu.au

When visiting a friend in Swan Hill, I went to an exhibition of stamps at the regional art gallery. There were stamps focused on the sugar, beef, wheat and other industries. In addition there were stamps issued for different scientific conferences, such as dairy, grassland and soil science. The stamp for the 1968 International Soil Science Congress in Adelaide caught my eye. Does anyone know the story behind this stamp? For example, who influenced the design of this stamp?



PEOPLE

George Hubble died on 29 March 2006 aged 92. George was the inaugural president of the Queensland branch of the ASSSI and played a key role in nurturing the development of the society during its early years. He was also an outstanding scientist and a keen researcher who contributed greatly to our understanding of soil limitations and opportunities for agricultural development across Australia. He was an honorary life member of ASSSI in recognition of his outstanding work during a lifetime in the field of soil science.

Feilding (Chip) Chippendale died on 21 October 2005 aged 87. Chip attended the first meetings of the Queensland branch, held informally at UQ in the late 1940s. Following the official launch of the Qld branch in 1956, Chip held various positions on the executive committee, including the office of president in 1965-66.

Bing So retired January 2006 from University of Queensland after more than 20 years with the School of Land and Food Sciences at the University of Queensland.

WORLD CONGRESS REPORT

Jack Holland reports on the 18th World Congress held in Philadelphia in July.

Thanks to financial support from the Federal Council and Victorian branch of ASSSI I attended the 18th World Congress of Soil Science (WCSS) in Philadelphia, USA. This was the first large international soils conference that I have attended outside Australia. Consequently I awaited it in eager anticipation. The WCSS was held in an enormous complex – the Pennsylvania Convention Center in the heart of downtown Philadelphia. It was truly a global occasion with soil scientists coming from numerous countries (I think it was over 100) on every continent. As expected the greatest number came from the host nation, although I was quite surprised that Australia provided the third most congress delegates. As there were so many Aussies around I found my time at the WCSS was a mixture of seeing old faces and meeting new ones.

The main conference program officially started with a welcome reception on Sunday evening, but I started the day before with a soil water equipment course run by Decagon Devices, Inc. This course included an overview of key soil water properties followed by a practical session. It was well organised and provided a good opportunity to contact a major manufacturer of soil water instruments. One interesting development was a thermal and electrical conductivity probe that Decagon has been designing for the 2007 Phoenix Scout mission to Mars! On Sunday I went to the FAO/ IAEA workshop on: use of nuclear techniques in addressing soil-water-nutrient issues for sustainable agricultural production. Thus by the time the welcome reception started I was fully warmed up for the conference.

Keynote address

After the opening ceremony the keynote address was given by a macro-economist - Jeffrey Sachs, Columbia University on the importance of agriculture and food production in the developing world; he stressed the need for a 'green revolution' in Africa to achieve self sufficiency in food production, a challenge to which soil science can make a significant contribution.

Following this there were the usual dilemmas in choosing between concurrent sessions. The quality of the presentations was highly variable which meant that it was not easy to decide which session to attend. The time-keeping of session convenors and the overall organisation was poor at times. There was no scheduled time in the program for the hundreds of posters that were displayed, which made it difficult to get maximum value in presenting a poster; also it was hard to bring together authors from the same symposia. Nevertheless I waited by my

posters for several hours and was able to discuss my work with scientists from around the world which was a valuable experience.

Tours

The mid-congress tours took place on the third day of the WCSS. Field trips included soils focused tours and those of a social/ historical nature. I attended a tour on watershed research and management in the Mahantango creek watershed (about a three hour drive west of Philadelphia) and lead by Andrew Sharpley of the USDA's Agricultural Research Service. The first stop of the tour was at a feed mill which was meant to enable us 'to reflect upon the direction of nutrient transport research', by observing goat feed being bagged in a noisy and dusty factory! Fortunately the tour improved and after a good lunch we were shown rainfall simulators and other equipment at the Pasture Systems and Watershed Management Research Unit 40 km north of Harrisburg, Pennsylvania, followed by two field sites. The second site was particularly well instrumented and the current focus here remains the overland transport of phosphorus. My impression was that the research group is very well resourced with equipment and technical staff (there were six full-time technicians), but the work done is similar to elsewhere and lacks the innovation I had anticipated.

The final two days of the WCSS were even busier than the first two days. The gala dinner was held on Thursday evening in the Grand Ballroom of the Marriott Hotel. Following the meal several medals were awarded. From an Australian point of view it was good to see that the Richard Webster Medal for pedometrics went to Prof. Alex McBratney. After this formal part of the evening, in complete contrast the entertainment kicked off with an Elvis look-alike taking the stage!

WCSS was a great opportunity to meet soil scientists from around the globe, especially those working in my areas of interest. The conference was attended by a healthy mixture of young and inexperienced scientists, indicating that soil science is an active and engaging field of science. However soil scientists seems to be lacking in developing countries where the needs and issues are greatest, especially in Africa. The challenge given by Sachs in the keynote address remains and hopefully some progress will be made by the next WCSS, to be held in Brisbane in 2010.

IUSS NOTES

IUSS appointments

New president of IUSS is Professor Roger Swift, pictured, the University of Queensland's Executive Dean of the Faculty of Natural Resources, Agriculture and Veterinary Science and former chief of CSIRO's Division of Soils. As well as hosting the World Congress of Soil Science (WCSS) in Brisbane in 2010, he will focus on raising the profile of soil and its vital role in the production of food, fuel and fibre, and environmental health. He will also promote the wide variety of rewarding careers available to industry entrants.

New IUSS vice-president is ASSSI president and UQ School of Land and Food Sciences Associate Professor Neal Menzies. Stephen Nortcliff (UK) and Alfred Hartemink (Netherlands) have been re-appointed as Secretary General and Deputy Secretary general, respectively.



World Congress

With soil scientists from all over the globe presenting thousands of posters and hundreds of oral papers the IUSS 18th World Congress in July showed that soil science is thriving. Several ASSSI members received grants to defray travel costs to the 18th World Congress of Soil Science, at Philadelphia in July. They were: Anna Sheldon (University of Queensland), Jack Holland (University of Melbourne), Dougal Currie, Clayton Butterly & Mark Thomas, (University of Adelaide), Vanessa Wong (Australian National University), Scott Henderson (Southern Cross University). A series of Congress reports will appear in IUSS Bulletin 109 (October 2006) and some are already on the IUSS and the 18th WCSS website <http://www.colostate.edu/programs/IUSS/18wcscs/index.htm>.

Next World Congress

For your diary: the 19th World Congress of Soil Science will be held in Brisbane, Australia, 1-6 August 2010; the 20th Congress will be held in Seoul, Korea in 2014.

IUSS awards

At the Congress, Alex McBratney, University of Sydney, received the Webster Medal. Rattan Lal (USA) received the von Liebig Award; Victor Targulian (Russia) the Dockuchaev Award; and Herman Mucher (Netherlands) the Kubiena Medal. The following soil scientists were elected IUSS Honorary Members: Winfried Blum (Austria), Hans-Peter Blume (Germany), Johan Bouma (Netherlands), S-J. Cho (Korea), Jan Glinski (Poland), Marcel Jamagne (France), Don Nielsen (USA), Hans van Baren (Netherlands) and Larry Wilding (USA).

New IUSS book: The future of soil science

IUSS asked 55 soil scientists from 28 countries (including Australians Alex McBratney and Neil McKenzie) for their views on the future of soil science and compiled their opinions into a book for the World Congress. The book aims to feed the discussion of the pessimists ('pedology is dead and buried') and the optimists ('future for soil science is brighter than ever'). To find out how to order, email alfred.hartemink@wur.nl.

ASSSI PUBLICATION MEDAL



Ben Macdonald is the winner of the 2005 ASSSI Publication Medal for a paper with OT Denmead, I White and MD Melville, 'Natural sulfur dioxide emissions from sulfuric soils', published in *Atmospheric Environment* 2004 38, 1473-1480. There were two other papers nominated:

- PM Koppitke for a paper with NW Menzies and FPC Blamey: Rhizotoxicity of aluminate and polycationic aluminium at high pH. *Plant and Soil* 266, 177-186.
- JR Condon for a paper with AS Black and MK Conyers: The influence of potassium and defoliation of ryegrass on the formation of acidic subsurface layers in stock urine patches. *Australian Journal of Soil Research* 2005 43, 213-223.

Above: Ben Macdonald, left, receives the ASSSI Publication Medal by NSW branch president Brian Murphy (right).

The medal aims to foster and reward high standards of scientific enquiry and communication among young soil scientists. The medal committee, Richard Bell (WA), Heiko Daniel (NSW), and Paul Nelson (Qld), praised the high standards of all papers nominated for the award.

Following is the abstract from Ben's winning paper published in *Atmospheric Environment*.

'Soils have long been recognised as sulfur dioxide (SO₂) sinks, but we show that they can also be sources of atmospheric SO₂. Using static chambers and micro-meteorological techniques, we have measured emissions of SO₂ from coastal lowland soils containing sulfides (mostly pyrite), commonly referred to as acid sulfate soils in Australia. SO₂ evolution seems coupled to evaporation of soil water containing sulfite. The global emissions of S from acid sulfate soils is estimated at about 3 Tg/year, which is of the same order as emissions from terrestrial biogenic sources and biomass burning and is about 3% of known anthropogenic emissions of S.'

The full citation for Ben's paper is: Bennett CT, Macdonald BCT, Denmead OT, White I and Melville MD (2004). Natural sulfur dioxide emissions from sulfuric soils. *Atmospheric Environment* 38(10): 1473-1480.

SOIL NOTES

CRC CARE

CRC CARE Cooperative Research Centre for Contamination Assessment and Remediation of the Environment Pty Ltd began work in October 2005. The CRC is based at the University of South Australia, Mawson Lakes.

Managing director is Professor Ravi Naidu. The CRC has funding of \$115 million over 7 year, of which \$30 m is from the Commonwealth under its CRC program, \$50 m from industry, and the remainder in kind contributions from companies and agencies. Website: www.crccare.com

Online soil maps

The European Commission has produced an accessible digital archive of soil maps that includes several thousand high resolution scanned soil maps for Africa (>2000 maps), Asia (1030 maps), Latin American and Caribbean. The maps are available as high resolution jpg images. Find out more at http://eusoiils.jrc.it/esdb_archive/EuDASM/indexes/access.htm

NT regolith atlas

A new atlas showing the different types of regolith in the Northern Territory is now available. The atlas contains news information about the blanket of soil, sediment and weathered rock that covers vast areas of the territory. Free copies of the electronic atlas can be ordered from NT Geological Survey.

Double Helix offer

CSIRO's Double Helix Science Club is offering ASSSI members and their families over 20% off club membership – \$20 for one year. The club aims to inspire young Australians toward science careers. To join, visit www.csiro.au/helix/pro. Note the discount price is only available via the pdf web link. The offer expires 30 September).

Calling for stories

CSIRO's publications Scientriffic (contact tanya.patrick@csiro.au), The Helix (helix.editor@csiro.au) and Science by Email (sciencemail@csiro.au) are always looking for interesting stories or people to showcase. This is an excellent opportunity to promote soil science.

Special soil biology issue of AJSR

The Australian Journal of Soil Research has published a special issue on soil biology in agricultural farming systems. You can access the papers at <http://www.publish.csiro.au/nid/84/issue/1408.htm>.

Infrared soil analysis

The World Agroforestry Centre, Nairobi has launched new Infrared technology to analyse soils. The scanner illuminates a soil sample with infrared light, then compares the different wavelengths of light reflected back to those from soils of known composition and structure. Source:

<http://www.scidev.net/News/index.cfm?fuseaction=readNews&itemid=2912&language=1> .

Acid sulfate soils newsletter

ASSAY, the quarterly newsletter about acid sulfate soils, is now back thanks to funding from the National Heritage Trust. To subscribe, email Chrissy Clay at christina.clay@dpi.nsw.gov.au.

Soil ecology seminar

If you are interested in soil ecology you can listen and look at the Powerpoint seminar given by US soil ecologist David Coleman in Adelaide in March. Download the seminar at

http://www.clw.csiro.au/video_html/2006/coleman220306/index_files/Default.htm#nopreload=1.

Acid sulfate soils on the internet

A web-based mapping and resource tool is now available to manage acid sulfate soils. The mapping pinpoints the danger zones for acid sulfate soils, showing where to avoid development and where soils will need special treatment. To look at the mapping and web based tools go to www.asris+.csiro.au.

National atlas of acid sulfate soils

The National Committee for Acid Sulfate Soils has combined all existing electronic map information on Australian coastal ASS and produced a common legend of ASS probability classes using plain English descriptions. This data has been loaded onto the 'Australian Soil Resource Information System' website (ASRIS) at

<http://www.asris.csiro.au/Grapher/MetaDataFullRecord.aspx?ID=NATCASS>.

Soil erosion manual

Queensland Dept of Natural Resources & Mines has produced a manual on management of soil erosion in cropping land. Download it at <http://www.nrm.qld.gov.au/land/management/erosion/index.html>.

Paddock trees boost soil organisms

UNE research has found that soil under isolated paddock trees has significantly higher numbers of soil organisms than the open paddock. Read the *Austral Ecology* paper (February 2006) at <http://www.blackwell-synergy.com/doi/full/10.1111/j.1442-9993.2006.01537.x>

Australian Soil Resource Information System

The new ASRIS website can be used to access information at a range of levels, including description of soil types, landforms and regolith across the continent. More detailed information is available where mapping is complete. Find out more at http://www.asris.csiro.au/index_ie.html.

Erodibility tool

The Desert Knowledge Cooperative Research Centre (CRC) is developing a new technique to help land managers map areas at risk of wind erosion. The Australian Land Erodibility Model (AUSLEM), takes into account factors such as soil types, soil moisture, vegetation cover, land use, and meteorological conditions to develop maps of erosion hazard. More information: Nick Webb, Desert Knowledge CRC and University of Queensland, 07 3365 7027, 0403 619 518.

Carbon briefings

You can access online audio presentations from Climate Change, Carbon and Plants, a series of briefings on the latest science and policy issues affecting plants and plant-based industries, conducted by the Greenhouse Accounting CRC. Go to http://www.greenhouse.crc.org.au/ecarbon/enews_June06.cfm.

NEW BOOKS

Soil management: Problems and solutions

Michael Fullen & John A Catt

Hodder Arnold UK. ISBN 0340807113

Provides an overview of the problems, challenges and potential solutions facing soil management in the twenty-first century, including erosion, desertification, salinisation, soil structure, carbon sequestration, acidification, chemical pollution, overpopulation and climate change.

Soils and societies: Perspectives from environmental history

Eds JR McNeill, V Winiwarter

The White Horse Press UK. ISBN 1874267529

Explores the ways people have worked with, thought about, damaged and restored soils through human history. It also shows how soils, their properties and their histories have influenced human affairs.

The biology of soil: A community and ecosystem approach

Richard Bardgett

Oxford University Press UK.

Winner of The Marsh Ecology Book of the Year Award 2006. Shows how soil organisms influence nutrient cycling and the ways that plants grow and compete with one another for valuable resources. It also considers how the soil's balance can be affected by climate change, intensive farming, invasive species and pollution, and how important the soil is for understanding how ecosystems will respond to these global changes. An easy to read introduction for anyone working in ecology, land management, and related disciplines.

Footprints in the soil: People and ideas in soil history

Ed. Benno Warkentin

Elsevier. ISBN: 0444521771

Tells the stories of the footprints left by soil users and soil scientists in the last two millennia, and illustrates the significance of soils knowledge to our society and to improving the human condition. The chapters are written by an international group of authors, each with special interests, bound together by the central theme of how we came to our present understanding of soils.

ABOUT ASSSI

ASSSI was founded in 1955 to work towards the advancement of soil science in the professional academic and technical fields. It comprises a Federal Council and six branches (Qld, NSW, Riverina, Vic, SA and WA). Liability of members is limited.

Specific objectives

- To promote the field of soil science
- To further the expertise in soil science of members
- To be a forum for discussion on soil science
- To increase government and community awareness of soil science
- To liaise and cooperate with other organisations in support of mutual interests
- To encourage research and extension in soil science
- To promote wise management of the soil resource throughout Australia

Membership & CPSS

For all membership and CPSS application and renewal enquiries contact the ASSSI executive officer Linda Bennison at office@asssi.asn.au, phone 03 5622 0804 or fax 03 5622 0806.

Profile contributions

Email contributions are preferred. Please email photographs and graphics as separate attachments. Send to the editor at rebecca.lines-kelly@dpi.nsw.gov.au, 02 6626 1319, or PO Box 468 Mullumbimby NSW 2482.

Profile deadlines 2006

Please send copy for the next issue by 30 September 2006.

ABN 96 080 783 106

Advertising

Advertising in Profile is welcome, and must be relevant to some aspect of soil science. Banner (20cm x 4cm) and box (20 x 20 cm) advertisements cost \$110 and \$220 (incl GST) per issue, respectively. Information about ASSSI conferences, courses, scholarships etc is published free.

CONTACTS

FEDERAL COUNCIL

President

Assoc. Prof. Neal Menzies
School of Land and Food Sciences
University of Queensland
ST LUCIA QLD 4072
Telephone 07 3365 2059
n.menzies@uq.edu.au

Vice President

Dr Stephen Cattle
Faculty of Agriculture, Food & Natural
Resources
UNIVERSITY OF SYDNEY 2006
Telephone 02 9351 2944
s.cattle@acss.usyd.edu.au

Secretary

Assoc. Prof. Steven Raine
Faculty of Engineering & Surveying
University of Southern Queensland
TOOWOOMBA QLD 4350
Telephone 07 4631 1691
raine@usq.edu.au

Treasurer

Dr Cameron Gourley
Dairy Research Institute
RMB 2460 Hazeldean Road
ELLINBANK VIC 3820
Telephone 03 5624 2226
cameron.gourley@dpi.vic.gov.au

Executive Officer

Mrs Linda Bennison
ASSSI Executive Officer
PO Box 1349, WARRAGUL VIC 3820
Telephone 03 5622 0804
office@asssi.asn.au

ASSSI Webmaster

Mr. Derek Yates
Nat. Cr Groundwater Technology
UTS Room 1715
PO Box 123
BROADWAY NSW 2007
Telephone 02 9514 2702
derek.yates@uts.edu.au

Newsletter Editor

Ms Rebecca Lines-Kelly
Wollongbar Agricultural Institute
1243 Bruxner Hwy
WOLLONGBAR NSW 2477
Telephone 02 6626 1319
rebecca.lines-kelly@dpi.nsw.gov.au

CONTACTS

NEW SOUTH WALES

President

Dr Brian Murphy
DNR Cowra Research Centre
PO Box 445
COWRA NSW 2794
Telephone 02 6349 8851
Brian.W.Murphy@dipnr.nsw.gov.au

Secretary

Dr Christopher Dorahy
CROA, NSW DPI
Private Mail Bag 8
CAMDEN NSW 2570
Telephone 02 4640 6443
chris.dorahy@dpi.nsw.gov.au

Treasurer

Mr. Budiman Minasny
Agriculture, Food & Nat. Resources
UNIVERSITY OF SYDNEY 2006
Telephone 02 9036 9043
budiman@acss.usyd.edu.au

NSW Editor

Dr James Taylor
Agriculture, Food & Nat. Resources
UNIVERSITY OF SYDNEY 2006
Telephone 02 9351 3706
j.taylor@agec.usyd.edu.au

VICTORIA

President

Emeritus Prof. Robert White
Land and Food Resources
The University of Melbourne
PARKVILLE VIC 3010
Telephone 03 8344 5886
robertew@unimelb.edu.au

Vice President

Dr Louise Clark
Environmental & Earth Sciences P/L
PO Box 2253
FOOTSCRAY VIC 3011
Telephone 03 9687 1666
lclark@eesi.biz

Secretary

Ms Gemma Nichol
PIRVic, DPI Bendigo Centre
PO Box 3100
BENDIGO DELIVERY CR VIC 3554
Telephone 03 5430 4335
gemma.nichol@dpi.vic.gov.au

Treasurer

Mr Gary Clark
Department of Agricultural Sciences
La Trobe University
BUNDOORA VIC 3086
Telephone 03 9479 5673
gjclark@students.latrobe.edu.au

VIC TAS rep

Ms Lucy Burkitt
Institute of Agricultural Research
PO Box 3523
BURNIE TAS 7320
Telephone 03 6430 4972
Lucy.Burkitt@utas.edu.au

QUEENSLAND

President

Ms Kristie Watling
Natural Resources, Mines & Water
PO Box 318
203 Tor Street
TOOWOOMBA QLD 4350
Telephone 07 4688 1092
kristie.watling@nrm.qld.gov.au

Secretary

Mr. Bruce Carey
Natural Resources, Mines & Water
Block C, 80 Meiers Road
INDOOROOPILLY QLD 4068
Telephone 07 3896 9390
bruce.carey@nrm.qld.gov.au

Vice President

Ms Philippa Tolmie
Natural Resources, Mines & Water
PO Box 318
TOOWOOMBA QLD 4350
Telephone 07 4688 1429
philippa.tolmie@nrm.qld.gov.au

Treasurer

Dr Stephen Catchpole
Max Winders & Associates P/L
GPO Box 3137
BRISBANE QLD 4001
Telephone 07 3002 5500
stephenc@maxwinders.com.au

QLD Newsletter Editor

Mr. Ben Harms
Natural Resources, Mines & Water
Block C, 80 Meiers Road
INDOOROOPILLY QLD 4068
Telephone 07 3896 9609
ben.harms@nrm.qld.gov.au

RIVERINA

President

Dr Jason Condon
Agricultural and Veterinary Sciences
Charles Sturt University
Locked Bag 588
WAGGA WAGGA NSW 2678
Telephone 02 6933 2278
jcondon@csu.edu.au

Secretary

Mr. Geoffrey Beecher
NSW DPI
PO Box 104
LEETON NSW 2705
Telephone 02 6951 2 725
geoff.beecher@dpi.nsw.gov.au

Treasurer

Mr. Richard Early
Charles Sturt University
3 Baree Place
WAGGA WAGGA NSW 2650
Telephone 0427 007 759
rearly@csu.edu.au

SOUTH AUSTRALIA

President

Mr Damien Adcock
University of Adelaide
Soil & Land Systems
PMB 1 GLEN OSMOND SA 5064
Telephone 08 8303 6578
damien.adcock@adelaide.edu.au

Secretary

Mr Clayton Butterly
University of Adelaide
Soil and Land Systems
PMB 1 GLEN OSMOND SA 5064
Telephone 08 8303 6578
clayton.butterly@adelaide.edu.au

Treasurer

Mr. Bernard Zarcinas
CSIRO Land and Water
PMB 2 GLEN OSMOND SA 5064
Telephone 08 8303 8429
bernie.zarcinas@csiro.au

Vice President

Mr. Dougal Currie
University of Adelaide
Soil and Land Systems
PMB 1 GLEN OSMOND SA 5064
Telephone 08 8303 7284
dougal.currie@adelaide.edu.au

WESTERN AUSTRALIA

President

Dr Daniel Carter
Natural Resource Sciences
WA Department of Agriculture
Private Locked Bag 4
BENTLEY DC WA 6982
Telephone 08 9368 3408
dcarter@agric.wa.gov.au

Vice President

Mr. Keith Lindbeck
Keith Lindbeck and Associates
PO Box 144
BULLCREEK WA 6149
Telephone 08 9332 0671
keith@keithlindbeck.com.au

Secretary

Dr Christoph Hinz
University of Western Australia
Soil Science and Plant Nutrition
35 Stirling Highway
CRAWLEY WA 6009
Telephone 08 6488 3466
chinz@segs.uwa.edu.au

Editor

Dr David Allen
Chemistry Centre WA
125 Hay Street
EAST PERTH WA 6004
Telephone 08 9222 3031
dallen@ccwa.wa.gov.au