PROFILE - THE OFFICIAL NEWSLETTER OF THE AUSTRALIAN SOCIETY OF SOIL SCIENCE INC

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Coffee rock discovery 'rocks' geomorphology

The recent discovery of acid sulphate soils (ASS) marine mud underlying coffee rock in Coastal Queensland has thrown doubt on the commonly accepted theory of coffee rock or indurated sands formation. See page 5 for more details. The discovery was the result of efforts by the Queensland Acid Sulfate Soils Investigation Team (QASSIT) in co-operation with state and local governments and was made possible by the recent purchase of a Geoprobe. The Geoprobe is a track mounted, hydraulically powered percussion machine, and an all-terrain vehicle that can sample to depths of up to 30m. It obtains continuous soil samples that are contained in 1.2m removeable clear polymer liners. The samples can be logged immediately or sealed and frozen for later logging.

ABOVE: Effective sampling of acid sulfate soils is rarely a straightforward exercise but has become easier with the use of the Geoprobe, operated here by Ian Hall.

In this issue

Profile

Profile

AUSTRALIAN SOCIETY OF SOIL SCIENCE INC.
ARBN 080 783 106
The Australian Society of Soil Science Incorporated (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 seven branches (Qld, NSW, Riverina, ACT, Vic, SA and WA). Liability of members is limited.

Objectives
- To advance soil science
- To provide a link between soil scientists and members of kindred bodies within Australia and in other countries.

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 liase 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
For all membership and CPSS application and renewals, subscription, queries and address changes contact Alice Bass, ASSSI executive officer on Mon-Tues 10.00am - 4.30pm and Wed 10.00 - 1.30pm. See back page for contact details.

ASSSI Website
http://asssi.rivercorp.com.au

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Advertisements
Advertisements relevant to some aspect of soil science are welcome. Charges are full page $200, half page $100, quarter page $50. Information about conferences, soil science courses, scholarships etc is published free.

Cover
Munsell 5YR 7:14

Contents

All contributions are welcome, text preferably by email. Please send to the editor, Jonnie White, PO Box 936, Biloela Q 4715,
tel 07 4992 6041, fax 07 4992 6043, email jrwhite@tpg.com.au

From the president

By the time you read this column, we will be well into the year 2000. However I want you all to belatedly receive my thoughts on the Christmas and the New Year we have just celebrated.

Christmas Greetings to all ASSSI members

I hope you all had a very special Christmas time with family and friends and look forward to a prosperous and challenging New Year. The festive season is a time for us to relax a little from the hurley-burley of our busy lives and reflect on the meaning of Christmas and its origin. It's a time to give, and to show the love and caring for people, which God showed to humankind 2000 years ago. May you all be blessed as you reflect on your contributions at work and at home throughoutthe past year, and as you plan for the year 2000. For each of you, it is my wish that this year be one of happiness in your job and your personal life, and one in which you can successfully meet the challenges of your particular roles in sustaining the soils and landscapes of this great land.

Joint National Soils Conference

Now, talking of plans for this year, the big event for ASSSI will be the National Soils conference - Soils 2000, to be held at Lincoln University near Christchurch, New Zealand. I trust many of you will already be planning to attend. I suggest you prepare your budget to include the travel and accommodation costs, and conference and field trip fees, for your next financial year. The second notice, with registration form, is included with this issue of Profile. Your Federal Council is hopeful that the success of the first joint NZSSS/ASSSI National Conference, held in Melbourne in 1996 will encourage your participation in the Christchurch event. So start planning now for a great gathering of the soil science fraternity in Christchurch in December 2000, the last month of the second millennium.

Membership Subscriptions

The subscription notices for 2000 have recently been sent to all ASSSI members. Can I encourage you to respond as soon as possible, as you do receive a bonus of $10 reduction if you pay before 31 March. As at the end of November, only about 70% of the membership had paid the 1999 subscription. This makes it difficult to successfully manage the affairs of your Society.

ASSSI Website

It was a pleasure to go into the ASSSI website the other day and find that three branches had their latest newsletters for all to read. So congratulations to NSW, for its "Cornstalk Media", to Qld for its "Queensland Branch Bits and Pieces", and to SA branch for its "South Australian Soils", and to all 3 branches for taking up the challenge of modern communications technology. Other branches, don't forget that this facility is not costing ASSSI at present, so we should make as much use of this means of communication to members, as we possibly can. If you are interested, the ASSSI Constitution and by-laws is also available to view on our site.

Graham Price

MAKE SURE YOU ARE PROTECTED

If you or your branch are organising an event you MUST notify the federal executive, to guarantee insurance cover.

An event is any activity other than ordinary meetings - workshops, training sessions, and ESPECIALLY field trips.

Send an outline of the activities involved, the time, date and venue of the event to:

David Lester
Incitec Ltd, PO Box 623 Toowoomba QLD 4350
tel 07 4639 7403 fax 07 4639 7410
David.Lester@incitec.com.au

Please notify David at least one week before the event.

From the editor's desk

Thanks again to all the faithful contributors without whom *Profile* would be a very thin publication. I hope you all had a wonderful Christmas and New Year break and that you haven't broken any of 2000's resolutions as yet!

To those of you who haven't contributed in the past - don't be shy. It only takes a few minutes to jot down a few paragraphs, scan a photo and send it to me at jrwhite@tpg.com.au.

Looking forward to hearing from you soon,

Jonnie White

Letters

In response to President's Column...

Dear Editor,

Following Graham Price's comments in *Profile* 119, I do not know if you are aware that the *Guidelines for On-site Effluent Disposal on Land* (the "Silver Book") has as one of its requirements by local councils, in NSW at least, that the soil report has to be completed by a person who has a CPSS. The book itself needs to have a more accurate soil section as attested by some of the society members but at least there is recognition for CPSS. Local government in NSW would be an area to target.

Pam Hazleton

New Product

Dear Editor,

In order to 1) raise the profile of the discipline of Soil Science; 2) show how Soil Science is or can be integrated to other disciplines in Earth system Science; 3) set a global educational standard which would aid in the evaluation and transfer of credits for Soil Science courses 4) help instructors deliver Soil Science courses using a systems approach to address current issues in agriculture, forestry, ecology and environmental sciences and 5) create a global awareness of the importance of Soil Science to humanity, we are pleased to announce the launch of the first volume of the series 'The Pedosphere and Its Dynamics: A Systems Approach to Soil Science' in print and electronic media. The title of the textbook is 'Introduction to Soil Science and Soil Resources'.

We have produced three integrated products: a print version of the text, an on-line version at www.pedosphere.com that is freely accessible and an interactive database of questions and answers. We are offering the print version of the textbook and a licence for using the interactivity component for an attractive price.

We would appreciate if you could kindly bring the above information to the attention of members of your organisation.

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njuma@salman productions.com

Coffee rock discovery

from page 1

Using the Geoprobe, 'Holocene era' (<10,000 years old) ASS marine mud was recently discovered underlying coffee rock at more than 10 locations on the Sunshine Coast. At these sites, coffee rock was usually encountered at 1-2 metres below the surface and in some cases was several metres thick and extremely hard. QASSIT officers Don Malcolm, Justin Adams, Ian Hall, Doug Smith, Col Ahern and coastal geomorphologist, Trevor Graham from GeoCoastal were involved.

Doug Smith said "During previous mapping exercises we would stop drilling once we hit hard coffee rock, assuming that we had hit Pleistocene material (10,000-1,800,000 years old) which was very unlikely to contain ASS material."

Coffee rock is a hard, cemented organic sand to loamy sand with high iron content. "One theory is that coffee rock may be able to form much more quickly than we had previously thought possible, but this idea clearly requires further research," said QASSIT Pedologist Bernie Powell. He suggests the discovery raises the question, "Is this relatively rapid formation of coffee rock related to high levels of iron in groundwater caused from oxidation of iron sulfides in the marine mud?"

Detailed ASS mapping and geotechnical deep drilling to understand catchment ASS hydrology interactions was able to reveal this phenomenon. This discovery has led to a revision of some of the earlier broadscale mapping (1:100,000 scale) which only assessed soils to the depth of coffee rock. It is not uncommon for coastal development to disturb soils to beyond 4m deep and hence impact on underlying ASS. Therefore, QASSIT plans to revisit several areas previously mapped as non-acid sulfate soils, to check if material below the coffee rock layer is ASS.

For further information please contact Doug Smith (07) 3896 9792, Col Ahern (07) 3896 9510 or Trevor Graham 0417 487 968.

***Profile* welcomes letters, particularly those which promote debate and discussion. Please send contributions to the editor.**

Riverine Plains Tour a Success

Nick Uren gives away all the secrets from the November physiography tour of the Riverine Plain.

The Riverina and Victorian Branches of the ASSSI held an exceptionally successful two-day excursion during which participants studied the depositional systems of the Riverine Plain and their relationship to climate changes, geomorphology and agricultural land use. The tour was ably organized and guided by David Burrow and instructed by Professor Jim Bowler and Dr. Bruce Cockroft.

On the Friday, 58 people participated (60% non-members), the majority of whom came from DNRE Victoria (55%) but a wide range of organizations were represented. These included NSW Agriculture, Melbourne University, teachers from Shepparton secondary schools, private soil consultants, members of the general public, some retirees, ANU, La Trobe University, CSIRO NSW and the NSW Dept of Land & Water Conservation. On the second day, 40 people participated. Henry Haskew, who has recently published a book, "Has Irrigation Become Degradation" - see Profile 111 for brief review, had driven by car from Bargara in Queensland to be present - such is the spirit of the Victorian Branch!

ABOVE: Jim Bowler, aided by Tim Stone and a water diving stick, explains some of the history of the Goulburn and Murray rivers.

On the first day Bruce Cockroft introduced the group to the depositional systems in the Shepparton Region and to the relationship between "prior stream" soils and their agricultural capabilities. The contribution made by soil surveyors such as the late Ken Skene, Ian Sargeant and others to our understanding of the distribution of the soils of the Riverine Plain was readily apparent. The name of the late Bruce Butler was frequently mentioned in the context of aeolian accessions of parna and of the K cycles in relation to the sequence of events that led to the deposits and the soils derived therefrom.

Bruce Cockroft, in his own inimitable style, convinced us that modern soil science had much to do with the truism that "good soils are easy to manage" - you just have to spend a dollar to make more. He also convinced us that there is a great deal of potential to improve their productivity further. The more difficult soils have heavier textures and are less well drained. They represent a challenge but nevertheless their potential productivity is high given good drainage and amelioration to create stable aggregates of a desirable size and the concomitant macroporosity. The challenge is one of costs rather than of science.

Friday night, a beautiful evening, was spent having dinner on the M. V. Mary-Anne whilst paddling up and down the Murray River at Echuca. Some of us discovered at personal risk to our health that M. V. stands for More Vino!

Next morning, under the baton of Jim Bowler, ably assisted by Tim Stone, we headed north to view the ancestral and now abandoned water courses of the Murray and Goulburn rivers on the Cadell Tilt Block. The Cadell Fault on its north-south axis caused major changes in the landscape and the movement of water through that landscape. Since then, about 60,000 years ago, the fault and climatic change has given rise to major geomorphological features such as the Barmah Sand Hills, Lake Kanyapella, and new courses for the Murray and Goulburn Rivers. Other features include the Moira Lakes, Little Lake Kanyapella, and the Barmah red gum forests. Some features such as the Kanyapella Prior Stream defied explanation but, given time, a logical explanation would have been found. Unfortunately we had to head home after a wonderful two days.

The success of the excursion was in many ways due to the efforts of David Burrow and I am sure that all those present are most grateful for not only the excursion booklet but also for all of the other nice touches. Thanks are also due to Bruce Cockroft and Jim Bowler.

Fixing the Foundations symposium

Presented here are abstracts from two of the key papers presented at the recent Australian Academy of Science symposium on the role of soil science in sustainable land management.

Held at the South Australian Research and Development Institute, Adelaide 11-12 November 1999 , the symposium challenged scientists to direct their thinking and effort to the processes in the soil which are critical to a better understanding of ecosystem function as a basis for more sustainable management of Australia's land and water resources. The speakers covered social, political and economic factors as well as science and provided a major challenge to soil scientists as we move into 2000. Below are outlines of the talks given by John Williams, CSIRO Land and Water and Kevin Goss, Murray-Darling Basin Commission. Mary White presented a vivid and disturbing picture of the state of land across the Australian continent.

Soils, ecosystems and the functioning of the Australian landscape with particular reference to rural production

John Williams
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Soil function is central to ecosystem function and ecological sustainability. Soil is a seething foundry in which matter and energy are in constant flux as it provides the support services for ecosystem primary production. A rich mix of mineral particles, biota, organic matter, gases, water and nutrients, soil constitutes a self-regulating biological factory essential for initiation and maintenance of life. Soil determines the partitioning of rainfall, snowmelt or irrigation into overland flow, infiltration, storage, deep drainage and, in turn, groundwater recharge. The way soil accepts, stores, and transmits water and associated solute, strongly influences the nature of rivers, springs, lakes and wetlands. Organisms in soil recycle residues converting them to nutrients and other compounds thereby providing the primary cleaning and recycling function for ecosystems.

This critical role of soil in ecosystem and landscape function has rarely been the focus of soil science. Much of soil science has been directed to serving a single production focus in agriculture. This is reflected in the fact that most Soil Science Departments at our Universities have been historically linked with agronomy and agriculture. Few have been formally associated with ecology, ecosystem studies or earth science, although a trend towards association with natural resource management is increasing.

Over the last decade there has been a clear recognition in the move towards ecologically sustainable development that this single focus on production has led to degradation of the natural resource and the environment. There is now increasing awareness that ecologically sustainable land and water management requires a shift to an ecological approach which studies agricultural production in the agro-ecosystem in which it is cast within the broader landscape. Soil function is fundamental to ecosystem health and environmental quality. It is therefore imperative that the soil science community moves its attention to increasing knowledge and understanding of these life sustaining processes in the soil. The challenge before soil scientists is to direct thinking and effort to the processes in the soil, which are critical to a better understanding of ecosystem function as a basis for more sustainable management of Australia's land and water resources. In this way, soil science can play a key role in providing the scientific knowledge urgently required for more sustainable management of our ecosystems in the Australian landscape.

Rural production has played a key role in Australia's economic development, but it has had a profoundly detrimental impact on the quality of the land and water resources. Australian rural production systems have been built by drastically changing the nature and seasonal patterns in the hydrological and nutrient cycles of the native ecosystems. Tropical rainforest made way for sugarcane monoculture; semi-arid clay plains became irrigated croplands; and

heathlands on sand plains were converted to wheat, canola and lupin fields.

Consequently, the exotic agricultural production systems of Australia's rural industries all face a common core of resource and environmental problems. These settle about the management of soil processes that determine the match between the sinks and the sources of water and nutrients in the ecosystem. Most of our farming operations leak water and nutrients. It is this very leaky nature of Australian agro-ecosystems, which lies at the heart of nearly all land and water degradation issues. This leakage results in waterlogging, mobilization of salt and other chemicals through the landscape, leaching of nutrients to generate soil acidification and leakage of nutrients to water bodies. We desperately need new biophysical solutions which can plug leaky systems and capture the water and nutrient for productive purposes. It is ironic that in Australian agriculture, where the shortage of both water and nutrients greatly restricts yield, it is the loss of both precious water and nutrient beneath crops and pastures that is the fundamental cause of both salinity and acidification. This immediately raises the prospect that if we can develop systems that make full use of available water and nutrients, they may be both more productive and more ecologically sustainable. At the moment, unfortunately, we have few, if any, such solutions.

Our best farming practices have not been designed, at the outset, to operate in harmony with the uniquely Australian ecosystems in which they are cast. Progress towards ecologically sustainable development as reflected in improved quality of the natural resource, will be made when our land use practices have ecosystem and landscape functionality which match those operating in the native ecosystems and landscapes.

For success in this goal, the scientific effort must first recognize that the soil/plant/animal agro-ecosystems must be studied in an integrated way and examined as part of the larger-scale ecological and hydrological processes that operate over the landscape. The solution must incorporate these functions at a range of scales including paddocks, hillslope, catchment, whole landscape and the regional basin. The landscape design will need to integrate sustainable production and maintenance of biodiversity for the catchment and region. Any revegetation program must have multiple objectives and, therefore, be designed to restore ecosystem function: hydrology, nutrient cycling, movement of biota and maintenance of habitat. Focus on short-term animal or plant productivity without consideration of the consequences on the other essential components of the agro-ecosystem and the larger-scale landscape processes, can be shown to be a primary cause for degradation of the natural resource. The way in which the production system interacts with the hydrological and nutrient balances, and the implications of these interactions for the longer-term stability and ecological functionality, has been neglected or studied in isolation from the production system. The first step in our search for an ecologically sustainable agriculture, requires that we address agricultural production as an agro-ecosystem which is part of the larger-scale ecosystem and landscape processes. Knowledge of how best to rebuild the Australian landscape and implement farming systems and land use that is ecologically sustainable and which can support viable rural communities, is critical to any regional development plan. At the moment, we run the risk of stumbling from solving one problem whilst creating another.

In the light of these driving forces, and the fact that knowledge of soil processes can make a key contribution to finding solutions to the causes of land and water degradation, it is timely that action be taken to refocus soil science on the fundamental role it has in ecosystem and landscape function.

Soil Science and land and water resource management

Kevin Goss General Manager, Natural Resources, Murray-Darling Basin Commission
GPO Box 409 Canberra, ACT 2601
kevin.goss@mdbc.gov.au

One of the big challenges for integrated catchment management in the Murray-Darling Basin is salinity. A recent Basin Salinity Audit has identified future impacts of salt mobilised from upland catch-

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Branch news

SOUTH AUSTRALIA

Dr Marian Skwarnecki (known as Swanny) has recently been transferred from CSIRO QCAT in Brisbane to CSIRO Land & Water in Adelaide. He is a senior research scientist (geochemist) in CRC LEME with principal research interests in mechanisms of geochemical dispersion, the geochemical signature of mineralization in the regolith, and geochemical techniques in mineral exploration. He is currently completing work on regolith and exploration geochemistry in the Arunta Inlier and Amadeus Basin in the Northern Territory. Swanny will shortly be commencing a project in the Mt. Lofty Ranges with **Rob Fitzpatrick** investigating the geochemistry and mineralogy of saline acid sulfate seepages with implications for mineral exploration.

Dr **Chris McLay** of Waikato University departed Adelaide in December after a busy 4 months with Dr **Mike McLaughlin's** group in CSIRO Land and Water. As well as packing in a considerable amount of research, Chris gave several seminars during his stay and interacted with many students of the Department of Soil and Water of Adelaide University. Taking Chris McLay's place, Dr **Cindy Grant** arrived in December for a 4 month sabbatical, working with Dr **Rebecca Hamon** on Cd uptake by wheat in cereal/oilseed rotations. Dr Grant is a Research Program Leader at Brandon Research Centre in Canada and has research interests in urease inhibitors, improving efficiency of N fertilizer, fertilizer management for linola production, N placement in reduced tillage and fertilizer management and Cd accumulation in crops. She can be contacted on Cindy.Grant@adl.clw.csiro.au or phone 08 8303 8400.

Bernie Zarcinas attended the Second International Conference on Contaminants in the Australasia-Pacific Region in New Delhi, India on 12-17 December and presented 3 papers on soil contamination issues in south-east Asia. Also in December, **Mike McLaughlin** attended a risk assessment workshop in North Carolina organised by the International Zinc Association."

Wayne Meyer travelled to Sri Lanka in December to undertake a review of the International Irrigation Research Institute.

Brian Hughes, **Richard Merry** , **Tim Herrmann** and others ran the final soil acidity and liming workshop for agribusiness early in December - an NHT funded activity. The SA Soil Acidity reference group is still going strong and meeting regularly.

Jon Fawcett, a University of Melbourne PhD student based in Horsham and working on the Dundas Tableland (western Vic), has been working through his soil samples with Rob Fitzpatrick and Richard Merry in Adelaide.

Angus Alston, who retired last year from the Department of Soil and Water at the Waite Institute, has finally cut loose and will spend a year travelling North America in a mobile home.

Alan Bird, a well-known nematologist and post-retirement fellow at CSIRO Land and Water, passed away unexpectedly on 13th December.

QUEENSLAND

Postgraduate Awards

Nominations for the 1999 ASSSI Postgraduate Award will be accepted up until 31 march 2000. This applies to those students who have been awarded their degree in 1999. Students or supervisors who are interested in making a nomination or anyone interested in judging the awards should contact the President, Rob Loch lochr@t130.aone.net.au, (07) 4632 0410 for further details.

Plans to Video Meetings

ASSSI's Queensland branch hopes to video presentations by guest speakers next year for distribution to those members unable to attend meetings. The Committee is currently investigating the feasibility of this option and asks that Queensland members register their thoughts and suggestions about this idea to the President, Rob Loch (07) 4632 0410, lochr@t130.aone.net.au by 18 February 2000.

Training Course

Expressions of interest are being called for a refresher training course "Understanding Soil Data and its Application to Land Management" being held in Toowoomba on July 4-5, 2000.

The 2-day course will give particular emphasis to the application of soil information and knowledge to important and topical land management issues, including:

* Land inventory and identification of good quality agricultural land
* Soil fertility and productivity
* Identification and management of Acid Sulfate Soils

* Soil erodibility, stabilisation of disturbed areas and off-site impacts of sediment movements
* Soil salinity and sodicity - issues for irrigation and effluent disposal
* Soil biology and organic carbon (soil health, carbon credits)
* Introduction to soil water balance modelling

The course will be designed for environmental management professionals working for Shire and City Councils, State Agencies, Landcare groups, consulting firms, valuers, and in planning activities.

Past refresher training courses have been well received, with the notes being a valuable reference source. Course attendees will receive a book containing all lectures and worked examples.

If you are interested in attending this course, please contact David Freebairn ph: (07) 4688 1391, email: David.Freebairn@dnr.qld.gov.au for further details. If you know of anyone else who would be interested in the course, please forward this information onto them.

NEW SOUTH WALES

Western Field Tour February 2000

This 4-day field tour is being organised by Orange members (especially Graeme Tupper, John Lawrie and company) and will be run in February. The tour will take in such sites as the Western Plains Zoo, Peak Hill Gold Mine, Forbes, Parkes Radio telescope, the Central West Conservation Farming Association Field Day, the Gearon Nature Reserve, Trangie research station and a cotton farm. The range of issues to be examined at these sites include soil health issues, waste treatment, environmental issues, urban salinity and sodicity. Soil pits will be examined throughout and soil landscape maps will be used/explained and local soil experts will be present throughout. The tour will travel by coach starting and finishing at Dubbo and will run from the evening of Sunday 13th Feb - lunchtime Thursday 17th Feb. Costs are $200 for students and retired members, $275 for ASSSI members and $350 for others and includes travel, meals and twin share accomodation. Special discount airfares from Sydney/Dubbo and return are available. For more information contact Graeme Tupper on (02) 6391 3143 or graeme.tupper@smtpgwy.agric.nsw.gov.au ASAP.

John Corbett Farewell Dinner

After many years of dedicated service to soil science, education and the ASSSI (especially the NSW branch), John Corbett has retired from the University of Sydney. To celebrate John's many achievements for the Society and soil science in general, the NSW Branch held a dinner in John's honour after the August branch meeting. This meeting and the subsequent dinner was the best attended branch function for a long time, in no small measure to the high esteem with which John is held by members. Many speakers recounted some of their shared experiences with John over the past 40 years. All attendees, especially the younger members, were treated to a personal history of NSW soil science over the last 40 years.

Annual General Meeting

The NSW branch held its AGM at the University of Sydney on December 10th 1999. Prior to formalities a seminar was presented by Geoff Humphries of Macquarie University on "Bioturbation in Soil".

Fixing the Foundations

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ments on irrigation, agriculture, flood plain wetlands and regional infrastructure. In addressing a problem of this magnitude the Murray-Darling Basin Commission is reinforcing its approach to catchment management and facing up to some key questions:

- Current farming systems, even at the 'best practice level' in many areas are inadequate to control salinity;
- Current goals for revegetation are too small to bring about significant achievements, and at higher levels of vegetative cover there are very significant economic and water yield trade-offs;
- Remnant vegetation is at risk and may not contribute as expected to catchment-scale water use;
- 'Living with salinity' is part of our future; and - Innovation and development of new land use options, new enterprises and new industries are very important to future catchment management.

What role does soil science play in this? It is clear we have to think about 100% landscape management to get the regional development outcomes off part of that natural resource while providing ecological services from the rest. This level of planning and management challenges the natural resource sciences to provide contemporary and integrated advice.

If our alternative land uses are to better mimic the capacity of natural systems to 'not leak' water and nutrients, then the capacity of land systems to provide productivity growth and eco system function must be better evaluated, worked into management systems and better communicated.

NEW MEMBERS

The ASSSI would like to welcome the following new members:

Carol Smith
BSc MSc PhD
Smith Soil Consulting
NSW Branch
Areas of Interest: pedology, soil chemistry and computer aided learning

Derek Poulten
B Sc
Goulburn-Murray Water
Vic Branch
Areas of interest: sub-surface drainage, salinity, waterlogging

Rebecca Hamon
BSc PhD
CSIRO Land and Water
SA Branch
Areas of interest: trace element chemistry, rhizoshere physiology, contaminant policy

Jade Swain
BSc (undergraduate)
Griffith University
Qld Branch
Areas of interest: environmental soil science

Rutger Vervoort
PhD
University of Sydney
NSW Branch
Areas of interest: soil physics, solute transport

Cameron Vacher
B Eng (Civil; undergraduate)
Nelson Irrigation Corporation Australia
Qld Branch
Areas of interest: irrigation systems design, erosion control

Neal Dalgliesh
C Agriculture
CSIRO
Qld Branch
Areas of interest: development of techniques for on-farm nomitoring of soil water and nutrients

Geoff Moore
B Agr Sc (Hons)
Agriculture Western Australia
WA Branch
Areas of interest: land capability, mapping, perrennial pastures

Steve Vlatko-Rulo
B Env Planning Studies (undergraduate)
Duke Contracting Services
Qld Branch
Areas of interest: contaminated land, acid sulfate soils

Raymond Nolan
B Sc Grad Dip (Natural Res)
Nolan and Associates Pty Ltd
NSW Branch
Areas of interest: land evaluation

John Field
BSc (Hons) PhD
Australian National University
ACT Branch
Areas of interest: pedology, geomorphology, forest soils

Jennifer Lang
B Sc
Department of Land and Water Conservation
NSW Branch
Areas of interest: soil survey

Catherine Evans
B App Sc M App Sc
NSW Agriculture
NSW Branch
Areas of interest: soil acidity, sodicity and salinity

Toby Smith
B Sc
Timbercorp Treefarms Pty ltd
Vic Branch
Areas of interest: land evaluation for bluegum plantations

Vanessa Hood
B Sc
Agriculture Victoria
Vic Branch
Areas of interest: soil organic matter

Brett Cocks
CSIRO
Qld Branch
Areas of interest: soil characterisation

Shane Cawthray
CSIRO
Qld Branch
Areas of interest: on-farm characterisation and monitoring of soil water and nutrients

Robert Carter
B A (Physical Geog)
Environmental and Earth Sciences
NSW Branch
Areas of interest: contaminant soil science and hydrogeology

Membership application forms are available from Executive Officer Alice Bass

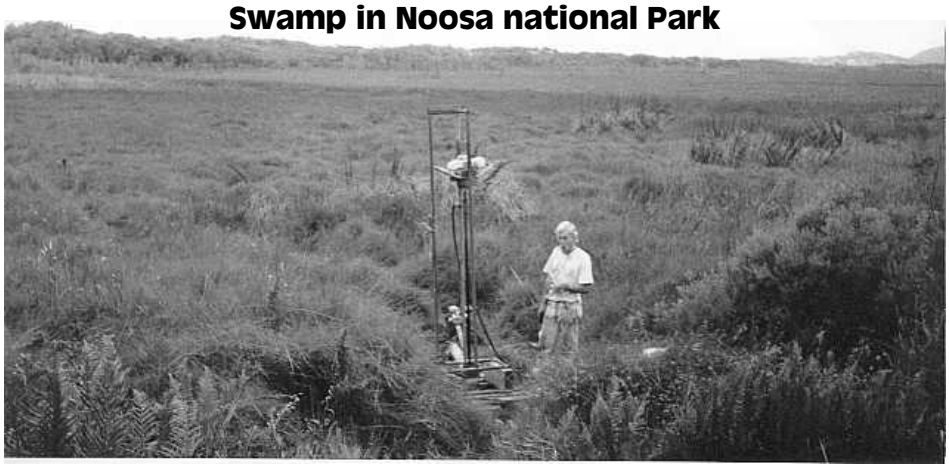
New Member Profiles

Once again we have a host of new members to introduce, so I thought we should get to know a few of them alittle better so I asked Isabelle Bertrand from the SA branch and Steve Vlatko-Rulo from Queensland to tell us about their background in soil science and what they hope to get from ASSSI membership

Steve Vlatko-Rulo

Duke Contracting Services was established in 1990. I am mainly involved with civil engineering based projects undertaking geotechnical and environmental investigations in the areas of contaminated land, acid sulfate soil assessments, groundwater monitoring and effluent disposal testing. I specialise in difficult access sites utilising investigation methods that create minimal or nil environmental damage. After several years working in soils laboratories, beginning in QLD in 1983, I moved across to the drilling industry and gained experience in mineral exploration, seismic drilling, piling/ rock anchoring throughout QLD, NSW and WA before concentrating on the geo-environmental field. It was from my involvement in numerous contaminated land and environmental investigations (some that could be best described as unmitigated disasters), that made me aware of the poor decisions made in terms of the way we live and develop, even though we have access to so much knowledge and are aware of past mistakes. More often than not, it was always a case of poor planning. This motivated me to enrol as an undergraduate at the University of the Sunshine Coast in 1998, in Environmental Planning Studies and Community/Social Studies. The degrees focus on human interaction with each other and the environment, combined with urban and regional planning. There is an emphasis on considering the inextricable links between the environment, science, politics, economics and society. The intention is to create a broader understanding of environmental and social issues. As a graduate, I intend to combine these degrees with my previous experience to offer services using an approach best described, 'from the earth up', to provide better options for progress and development. I'm hoping through my membership with ASSSI to make contact with scientists in the fields of soil management, quality and rehabilitation.

BELOW: Steve underaking an investigation at Emu Swamp in Noosa national Park



Isabelle Bertrand

I am a new member of the CSIRO Land and Water team since the middle of August 1999. I have a three year post-doctoral position in Adelaide and I will be working in collaboration with Dr M. J. McLaughlin from CSIRO (Adelaide), Dr B. Holloway from SARDI (Minnipa) and Dr R. Armstrong from the Victorian Institute of Dryland Agriculture i.e. VIDA (Horsham). The project will focus on increasing our understanding of phosphorus behaviour in highly alkaline soils. The aims of this project are i) to identify the major constraints to adequate P nutrition of cereal crops in highly alkaline soils, ii) to provide a better understanding of the behaviour of P and micronutrient elements to cereal crops in highly alkaline soils, and iii) to develop fertilisation strategies to improve crop P nutrition in highly alkaline soils.

I am a native of the South of France and I have a degree in Mineralogy and Mineral Chemistry obtained both at the University of Toulouse III. After a Master's degree completed in Marseille, I was offered a PhD scholarship from the French govern-

ment. I then chose a PhD proposal offered by INRA (Institut National de la Recherche Agronomique) dealing with the chemistry and bioavailability of plant nutrients, and especially phosphorus, in Mediterranean, calcareous soils. I completed my thesis in the Department of Soil Science of INRA in Montpellier under the supervision of Dr Philippe Hinsinger and Dr Benoît Jaillard who are both experts in soil-root interactions in the rhizosphere.

The objectives of my PhD programme were to study the interactions between plant roots and phosphorus-bearing minerals common in calcareous soils and their consequences for plant nutrition. My work has thus focussed on the rhizosphere of several crops (canola, maize, pea and white lupin). In order to understand the processes involved in such interactions and especially the potential contribution of proton release by plant roots, I have worked mostly with simplified substrates which were selected as models of soils.

My PhD work has given me the opportunity to collaborate with some famous soil scientists from France and overseas (S. Staunton, C. Morel, J.C. Fardeau, J. Torrent, V. Barron and B. Gilkes and others). With the new position that I have now in CSIRO and my new subscription to the Australian Soil Science Society Incorporated I hope to integrate into the important Australian soil science community and begin new collaborations and interactions.

ABOVE: Isabelle settling in to the lab at CSIRO Land and Water, Adelaide

AJSR Contents

Contents of the Australian Journal of Soil Research, Volume 37, No 6, 1999.

Volume 37, No 6

AJSR is available on the web at www.publish.csiro.au/journal/ajsr/index.html

ASSSI bids for 2010 Congress

As foreshadowed in the last issue of Profile, President Graham Price and Secretary Steve Raine met with representatives of the Brisbane Convention Centre and Brisbane Tourism in October to discuss the Australian Society of Socil Science Inc bid to hold the 19th International Soils Congress in Brisbane in 2010.

Both organisations were prepared to provide organisational and logistical support in the preapration and running of the event.

Contact has also been made with Sceretary General Blum of IUSS who advised that no other countries had yet shown interest in hosting the 2010 Congress, after the US Soil Science Society had put its hand up for 2006. The suggested that ASSSI submit its case to an Extraordinary meeting of IUSS to be held in Bangkok in April 2000. It was indicated that an invitation to attend this meeting will be sent in the near future.

According to IUSS by-laws, the host country has an obligation to give 10% of the registration fee of the Congress (minimum $US10 000) to IUSS after the end of the Congress. The case supporting the application has to include official documents indicating that ASSSI has the backing of institutions such as ministries (presumably government departments or ministers of the crown). and universities to ensure that financial obligations can be met.

The pros and cons of committing ASSSI to a Congress such a long time in advance of the event were discussed at the November Federal Coucil meeting. There was unanimous support for ASSSI to proceed in the preparation of its case, therefore Federal Council expects to liase with the IUSS, Brisbance Convention Centre and Brisbane Tourism to assist in preparing the case.

New Structure for IUSS

Following the formation of the International Union of Soil Science (IUSS) from the ISSS after the acceptance of Soil Science as a member of the International Council of Scientific Unions, the Council of IUSS considered it appropriate to consider the revision of the scientific structure of the Union. The guiding principles included the wish to have a relatively small number of Divisions (the highest level of organisation below Council) and the need to be able to place all the activities of the Union within this structure. Following extensive discussions at an Executive Council meeting of IUSS in Vienna early in October, the Council has presented a first attempt at devising a structure following these guidelines. This structure will be published in the forthcoming issue of the IUSS Bulletin and has appeared in the British Society of Soil Science newsletter (a copy is available from the editor of Profile). The Council is calling for comments on the proposed structure prior to its next meeting in April.

ASSSI General Meeting

All members are cordially invited to a General Meeting of the Society

7pm, 1st March 2000
Room 324, Hartley Teakle Building, School of Land and Food
University of Queensland, St Lucia

This general meeting has been called to satisfy the requirements of the Society's Constitution to hold such a meeting at not more that two yearly intervals. The main business to be conducted will be the presentation of the Society's Annual Report and Accounts for 1999. It is also envisaged that the next General Meeting will be held in conjunction with the National Soils Conference in December 2000.

Life Member Profile

This issue we continue the life member profile series by talking to Bruce Cockroft of the Victorian Branch about his career in soil science and where the future lies.

Born in Swan Hill on the Murray River, Bruce Cockroft attended Swan Hill High before undertaking an Agricultural Science degree at the Melbourne University in 1949. As a new graduate Bruce began work at the irrigated agriculture research institute in Tatura in 1953, before taking study leave to complete a Masters Degree at Melbourne University and PhD under Keith Barley and Bill Greacen at the Waite Institute in Adelaide on soil physics and the mechanics of root growth. Returning to Tatura he continued investigating soil physics in the context of soil management for irrigated agricultural systems, a topic he continues to actively pursue to this day. Bruce was appointed Director of the institute at Tatura in 1970 and retired in 1989 to take on research consultancy in irrigated orchards and row crops.

Career Highlights

Throughout his career, Bruce has been integral to the development and adoption of several improvements to soil management systems in irrigated orchards. Conventional soil preparation methods gave way to zero-till management in the 1960's. In the early 1990's this system was refined with the introduction of more intensive soil preparation including ripping, addition of organic matter and hilling. Today research is focusing on further improvements to this system. In conjunction with other agronomic advances, the improvement in soil management systems has been responsible for a four-fold increase in the productivity of irrigated orchard systems in the Goulburn Valley with more gains possible. The focus of this work has also been to make farming systems less expensive and easier to undertake for growers.

Involvement with ASSSI

Bruce became a member of te ASSSI in the 1950's, soon after the Society was formed and has served as Treasurer to the Victorian Branch. He was awarded life member status in July 1989 and continues to be involved with society activities such as the recent Riverine Plains Tour.

Favourite Soil

Bruce confesses that his favourite soils are the chernozem-like, recent volcanic soils found in south-western Victoria, chosen because of their structure.

Future for Soil Science

According to Bruce soil science is crucial to the economic and environmental future of Australia's farming lands. He contends that in Australia, irrigated agricultural yields are well below potential, and believes that productivity gains must be targeted in soil research. This is because the per hectare profitability of agricultural systems will determine if conservation is affordable, and whether soil management issues such as salinity and waterlogging can be managed sustainably.

Bruce is enthusiastic about how Australian soil science has developed a wonderful fraternity and enjoys catching up with friends at conferences and field excursions. This extends internationally, where Australian soil scientists are made welcome by their colleagues everywhere, due to the high regard that has developed for Australian soil science.

BELOW: Bruce (far right) explains an example of the Riverine K2 on the recent Riverine Plains Bus Tour.

Biological Factors in Regolith Formation - Symposium

Preliminary Notice and Call for Expressions of Interest

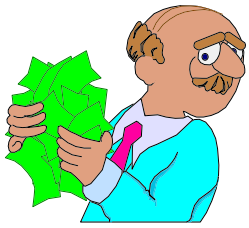
Recently, a number of workshops and publications have included mention of the importance of Biological Factors in the Formation and Management of Regolith. Following on from the very successful workshop on Aeolian Dust, the CRC for Landscape Evolution and Mineral Exploration will be sponsoring a two day workshop on the **29th and 30th of June** in Canberra with a 1 day (2 days if sufficient interest) field trip on the 1st of July between Canberra and Sydney (ending in Sydney with free connection to the Australian Geological Conference which follows immediately).

Some of the issues that might be addressed:

** Increasingly authors describe the importance of soil biota to soil formation and management.*
** Explorationists are researching the role of microbes in the transfer and concentration of metals (eg. gold) in the regolith.*
** Regolith scientists are describing the role of organisms in mobilising aluminium and silica in ambient conditions that will not normally lead to dissolution.*
** Microbial fossils are being found in ferricretes and silcretes*
** The number and diversity of organisms that exist in ground water are rapidly proving to be as great as many complex terrestrial ecosystems.*
** "Superbugs" operating at scales up to kilometres in depth in weathering reactions.*

Those interested in taking part in such a workshop, particularly if willing to present a paper in written or poster form, are asked to advise John.Field@anu.edu.au, (02) 6249 3566 with their contact details and a description of their contribution as soon as possible. The organisers will acknowledge these contacts and construct a program. Already a number of leading scientists have agreed to take part, offering papers on topics as diverse as those described above.

John Field Convenor BFRF



YEAR 2000 SUBSCRIPTIONS

By now all members should have received a subscription renewal notice for the year 2000 fees. If you have not, please contact me. These fees are due by March 31st 2000 and as always, if you pay by this date you will be able to take advantage of the $10 discount in fees.

Unfortunately, we still have members who have not paid their 1999 membership fees. If you are one of these members, the amount owing is listed on the form. The Federal Council decided at its meeting on November 25th 1999, that any member who has not paid the 1999 and 2000 fees by March 31st 2000, will be removed to an inactive list. These members will not receive any correspondence from the Society including the Profile Newsletter or Branch newsletters until they pay all fees owing.

EXECUTIVE OFFICE CLOSURE

The Executive Office will be closed from Monday January 10th 2000 and will re-open on Monday January 31st 2000. If you wish leave a message on 08 8351 5084, fax on 08 8351 5184, email me on abass@camtech.net.au or wait until I return! Alternatively, if you feel it is urgent you may be able to contact one of the members of Federal Council.

Remember that I am only here on a part-time basis. My normal hours are: Monday and Tuesday: 10am - 4.30pm and Wednesday: 10am -1.30pm.

Have a happy year 2000! *Alice Bass, Executive Officer*

Soil Scientist's Scrapbook

This picture of a field day held on the Darling Downs shows us how little has changed in how we share information. The only clues to when this event was held is in the very smart attire of the participants and the style of the vehicle. Some members might like to hazard a guess as to which year this photo was taken.

Soils Theses

Brendan George
"Comparison of techniques for measuring the water content of soil and other porous media"
University of Sydney, Department of Agricultural Chemistry and Soil Science
Awarded: M Sc 1999
brendang@sf.nsw.gov.au

Robert Kelly
"The effects of vesicular arbuscular mycorrhizal fungi on the nutrition of sugarcane"
University of Queensland, School of Land and Food
Supervisors: Prof DG Edwards, Dr JP Thompson, Dr RC Magarey
Awarded: PhD 1999
kellyrm@dpi.qld.gov.au

Soils on the Web

The following sites may come in handy next time you go surfing for some soils related information:

International Soil Reference and Information Centre (ISRIC)
www.isric.nl

Approximate correlations between Australian and other soil classifications (cty ACLEP site)
www.cbr.clw.csiro.au/aclep/asc/append5.htm

Australian Soil and Plant Analysis Council
www.42south.com/aspac/

Periodic Table of Elements (cty WebElements)
www.webelement.com/

Careers Expo uncovers interest in soil science

After attending a careers event recently, John Stadley shares a few thoughts on the scope of interest in soil science careers.

"How well do we promote interest in soil science?" In Toowoomba an Agricultural Business & Technology Careers Expo to interest Grade 11 and 12 students from southern Queensland schools in careers in agriculture and related industries was held last August . Almost 300 students came from 22 schools as far afield as the Lockyer Valley, Goondiwindi and Miles .

"I was fortunate enough to have prepared a display showing analytical equipment used for soil, plant and pesticide analyses with surrounding posters describing acid sulfate soil studies, salinity and numerous photos of field trials as well as career information from the University of Queensland. The interest by the students in the application of chemistry to agricultural and environmental problems was so great that I soon ran out of publicity brochures, intended mainly as information to be held in schools, and was one of the last exhibitors still talking at the end of the evening !

Maybe Society members should make better use of the promotional opportunities offered by participating in such activities."

John Standley

Vice-president, Lyn Abbott is interested in ways we can encourage and improve student involvewment with the ASSSI. If you have any ideas or comments on this topic please contact Lyn - details on page 23.

ABOVE: An enthusiastic John Standley promoting the benefits of a career in soil science. The title of the display was 'Analytical Chemistry: Detectives at Work'. This photo was taken just before the invasion of students began.

Sodicity Conference attracts international guests

Soil Scientists from China, India, Israel, New Zealand and USA will be heading towards regional Victoria to participate in a three day "Sodicity Conference" that will be held at the Institute of Sustainable Irrigated Agriculture (ISIA), Tatura from 28 February-1 March 2000.

Some of the prominent scientists attending this conference include: Prof J. D. Oster (University of California), Dr Donald Suarez (US Salinity Laboratory USDA-ARS), Prof Issac Shainberg and Dr Arie Nadler (Institute of Soil and Water, The Volcanic Centre, Israel), Prof R. W. Tilllman (Massey University) and Dr Bob Sojka (USDA) along with Australian scientists of the calibre of Dr A. P. Hamblin, Prof J. P. Quirk and Dr P. Rengasamy.

The Victorian and the Riverina branches of ASSSI are among the many sponsors. Other sponsors include: DNRE/Agricultural Victoria, MDBC, DRDC, GVRDC, GRDC, Goulburn Valley Water (GVW), Goulburn-Broken Catchment Management Authority (GBCMA), Natural Gypsum Miners Association of Victoria Inc, (NGMA), Gypsum Miners in Victoria (Northern Gypsum, CUMCO Gypsum, and Polisbet Natural Gypsum), Processed Gypsum Products Australia Pty. Ltd., John Morato Enterprises (Gypsum distributors in Queensland).

The proceedings of the conference will be published in a special issue of Australian Journal of Experimental Agriculture (AJEA).

The topics that will be covered in the conference include sodicity in irrigation waters (groundwater, wastewater and drainage water), sodification of agricultural soils, sodicity problems in agricultural systems, amelioration and management of sodic soils.

For more information contact : Dr Aravind Surapaneni, Institute of Sustainable Irrigated Agriculture (ISIA), Private Bag, Ferguson Road, Tatura, Victoria 3616, AUSTRALIA Ph: +61 3 5833 5223 Fax: +61 3 5833 5299 Email: aravind.surapaneni@nre.vic.gov.au. Conference web page: http://www.nre.vic.gov.au/conf/sodicity/

Federal Council minutes

The192nd ASSSI Federal Council Meeting was held on the 25th November 1999 at the University of Southern Queensland, Toowoomba

1. Welcome

The President opened the meeting at 10.27 am with a special welcome to L Abbott attending her first meeting in person and R Loch in his capacity as the new Queensland Branch President.

2. Attendance

Present: G Price, L Abbott, S Raine, J White, D Lester, R Loch (Qld), J Standley (Riv proxy), D Edwards (SA proxy), C Ahern, A Bass (executive officer on telephone for item 6)
Apologies: L Sullivan, N Menzies,

3. Minutes of the 191st Council meeting

S Raine noted that the sub-section numbers in Section 5 were incorrect and that the first sentence of Section 10.4 should have been "L Sullivan reported that, as with all scientific journals, the long-term future of AJSR is under pressure due to a number of factors including the level of subscriptions and asked the Council to consider options for supporting and/or promoting the publication". *S Raine moved that, with the above amendments, the minutes of the previous meeting be accepted as a true and correct record, seconded D Edwards. Motion carried.*

4. Business arising from the minutes

4.1 Re: 4.6 **G Price and S Raine are still to review By-laws 25 & 28 and prepare a submission to Council.**

4.2 Re: 4.7. **R Fitzpatrick is still to prepare a submission in relation to By-Law 29 for consideration by Council.**

4.3 Re: 5.1 CPSS Agreement with AIAST has been signed. **J White to include a copy of the substantive sections of the agreement in the next issue of Profile.**

4.4 Re: 8.2: The 1997 Annual Return has been lodged with the ACT Department of Justice and Community Safety. The 1998 Annual Return is expected to be lodged within the next month but is dependent on the 1998 audit report being finalised. The ASSSI Public Officer, W Bond, has also indicated that he is unwilling to continue in this role. **S Raine to contact ACT Branch to confirm a suitable replacement.**

4.5 Re: 8.3: Auditor's report from the 1998 national conference sent to Vic Branch as requested.

4.6 Re: 10.2 The replacement ASSSI representative on the CPSS Soil Science Assessment Panel is yet to be confirmed.

4.7 Re: 10.3 The ASSSI representatives on the CPSS Standards Committee are still being finalised.

5. President's Report

G Price reported that he attended the last meeting of the National Conference Organising Committee and visited the conference venue, Lincoln University. The Committee appears to be well on target and the venue appropriate. Discussion of the draft publicity and registration documents ensued with **G Price to convey comments back to the Committee**. It was also suggested that, if possible, G Price should attend the meeting of the Committee planned for June 2000.

6. Executive Officer's Report

6.1 A Bass reported that the reminder notices to unfinancial members has been sent out in September. As at the 24th November the Society had 952 members of whom only 647 were financial. During the year, the Society has had 51 members resign and 60 new members apply. Only 157 of our members are IUSS members and only 104 members are currently CPSS accredited. **A Bass to provide to the Treasurer a breakdown of the number of financial/ unfinancial members in each Branch for use in dispersing funds.**

6.2 The issue of unfinancial members was discussed. It was resolved that members owing dues for 1999 as at the 31st March 2000 should be moved to the inactive list. **A Bass will forward a list of the**

breakdown of financial/unfinancial members to each Branch Treasurer.

6.3 A Bass indicated that renewal notices should be ready to be sent out in December and that she would investigate the production of the membership certificates during January/February. D Edwards also raised concerns over the lack of quality certificates which could be provided in association with Society awards including the granting of Honorary Membership status. **A Bass to investigate options.**

6.4 A Bass indicated that she would be meeting with A Millman (AIAST) in early December to confirm the administrative issues in relation to the CPSS scheme.

6.5 Discussion of the processing of new membership applications was invited by the chair. After a discussion principally of the delays in the current approval process it was pointed out that there should be no delays if the process as outlined in the by-laws is followed. Hence, new applications for membership should be sent directly to the Executive Officer for provisional approval and a copy of the application is sent to the relevant Branch only for their information and records. Formal approval is received at the next Federal Council meeting.

7. Treasurer's Report

7.1 The draft audit of the 1998 Society Accounts has been received but the final audit report is yet to the produced by the auditors.

7.2 D Lester expects to distribute the 1999 Branch fees to the Branches before the end of December.

7.3 A request was received from the Australian Contaminated Land Association for the distribution of their share of the surplus from the Workshop held in 1998. As it is assumed that this is the last request for funds in relation to this workshop, **D Lester will finalise the workshop accounts.**

7.4 A discussion of the framework for the establishment of an "educational fund" using the contaminated lands workshop surplus as suggested by the previous Council ensued. *C Ahern proposed that as a general principle applications for seed funding should be from an ASSSI Branch or member for the purpose of conducting soils related training workshops which intend to at least cover the full costs of the workshop through fees. Applications should include a fully costed budget showing repayment of the seed funding (maximum of $2000 per workshop) plus a minimum 10% surplus within three months of the workshop being conducted. The support of the ASSSI would normally expect to be acknowledged in all publications and at the workshop. Seconded L Abbott. Motion carried.*

7.5 D Lester opened debate on the Federal Council budget for 2000 by noting that there is an expected $10000 operating deficit due to the relatively low number of financial members. General debate ensued but there was no support for an increase in fees at this time given the increase at the start of 1999. It was resolved that fees would be reviewed again at the end of 2000.

7.6 *D Lester moved that the accounts paid during the previous period be endorsed and the outstanding accounts be approved for payment. Seconded S Raine. Motion carried.*

8. Secretary's Report

S Raine tabled a full listing of correspondence in and out for Council. Substantive matters arising from the correspondence and other secretariat responsibilities:

8.1 A request for sponsorship was received from the Victorian Branch to support the travel costs of an invited speaker to the sodic soils conference being held in February 2000. In accordance with earlier decisions in these matters, it was resolved not to support travel costs of speakers which could reasonably be covered by registration fees. There was also some discussion in relation to the possibility of offering to provide matching funding for student attendance, but this was not supported on the grounds that the conference has a narrow discipline focus and is not being promoted as an ASSSI event.

8.2 The Society is still seeking a representative for the IUSS Soil Organic Fertiliser and Amendments committee.

8.3 There has been some correspondence with I Hollingsworth regarding the possibility of establishing an ASSSI Branch or regional representative in the Northern Territory. As the number of members in the NT is currently too small to form a separate Branch, this matter has been referred to the Qld Branch to consider regional representation for the area.

8.4 Applications for membership from eighteen people were tabled. *S Raine moved that all the*

applicants be admitted to the Society, seconded J Standley. Motion carried

8.5 *S Raine moved that the inwards correspondence be accepted and that the outwards endorsed. Seconded R Loch. Motion carried.*

9. Editor's Report

9.1 J White has spoken to the printer with regard to some delays which have been experienced and will reassess their performance after the next issue.

9.2 J White invited comment on the content of the last issue of Profile. D Edwards suggested that it might be an opportune time to create an historical section which includes reminiscences from members about the establishment and initial activities of the Society.

10. General Business

10.1 Accreditation sub-committee report: R Loch reported that he had co-opted L Sullivan and K Coughlan for the sub-committee. He also indicated that he had started reviewing the operation of several other professional accreditation schemes including the expertise and products supplied as part of the accreditation process. This preliminary investigation has already revealed that most schemes of note include a process for the registration of grievances and for the imposition of fines and/or penalties.

10.2 Student development sub-committee report: L Abbott reported that she is still awaiting expressions of interest from prospective committee members and is still particularly looking for student participation.

10.3 Marketing sub-committee report: J White reported that she has co-opted I Fillery (WA), G Beecher (Riv) and A Smith (Vic) and that the committee is initially focusing on identifying opportunities and existing resources to support a marketing program.

10.4 IUSS Congress in 2010. S Raine reported that there has been strong support from the Branches and the Brisbane Convention Centre in relation to hosting the 2010 Congress. The response from the IUSS indicates that a nomination could be assessed at the April 2000 IUSS Extraordinary Council meeting in Bangkok. After discussion, *D Edwards moved that Federal Council prepare a submission to host the 2010 Congress for consideration at the IUSS meeting. Seconded L Abbott. Motion carried.* **G Price & S Raine to prepare a draft submission for consideration at the next Federal Council meeting.**

10.5 The WA Branch has indicated that they are supportive of holding a tour in collaboration with the 2002 IUSS Congress in Bangkok. **S Raine to communicate with the IUSS and identify the proposed dates and requirements.**

10.6 G Price noted that there is a requirement under the Society's Constitution for a general meeting to be held at an interval of not more than two years. As the last general meeting had been held on the 27 April 1998 there is a need for a meeting prior to April 2000. It was resolved that the next ASSSI General Meeting be held in conjunction with the Qld Branch Meeting in March 2000. **J White to ensure that a meeting notice is included in the next issue of Profile.**

10.7 Federal Council meeting dates were confirmed as the 24th February 2000, 25th May 2000, 31st August 2000 and 8th December 2000.

11. Closure

The president declared the meeting closed at 5.10pm. The next meeting of the Federal Council will be held at USQ on the 24th February 2000.

More from the President

Agreement with AIAST

Included with this issue of Profile you will find a copy of the relevant parts of the Memorandum of Agreement between the AIAST and the ASSSI for the implementation of the standards for professional soil scientists.

A great deal of effort has been expended in ensuring that this agreement meets the requirements of the ASSSI and is provided here for the benefit of members. A complete copy is available by contacting the Federal Secretary Steve Raine(contact details on p23).

This agreement came into force on 1 July 1999 and is due for renewal on 1 July 2001. It is important that those members who are affected by the agreement (ie. those with CPSS status) advise the Federal Council of any problems with the agreement or difficulties with the CPSS process.

Seeding Fund Reminder

Members are reminded that the Federal Council has available an 'Educational Fund' which is to be used as a seeding fund to help launch workshops.

This fund was established after a successful contaminated land management workshop held in 1998 by the previous federal council netted approximately $9000 for the society.

Applications for seed funding should be from an ASSSI Branch or member for the purpose of conducting soils related training workshops which intend to at least cover the full costs of the workshop through fees. Applications should include a fully costed budget showing repayment of the seed funding (max. $2000 per workshop) plus a mimimum 10% surplus (to ensure the growth of the fund) within three months of the workshops being conducted.

Queensland Rail Sponsors Soils Days

A recent series of soil management workshops in rural Queensland were sponsored by Queensland Rail, the state rail network. The Soil Matters workshops were designed around the publication of the same name (see Profile 119 for a review), and held on farms at several centres in Queensland's cropping regions during August.

Soil cores from contrasting profiles in neighbouring properties were available for 'hands on' discussions of soil chemical and structural properties affecting management. ASSSI stalwart, Cliff Thompson was on hand to explain how these related to paddock history and how the soil was formed.

Participants also discussed the methods and tools for taking soil samples in a fertility and moisture monitoring programme. The concept of plant available water and the use of computer models to predict it was discussed with specialists from the Agricultural Production Systems Research Unit of the CSIRO based in Toowoomba.

ABOVE: Over fifty primary producers attended the Soil Matters field day at Moura. It was hands on action at four different 'activity stations'.

Conferences

Any conferences, courses, seminars or workshops coming up?
Send *Profile* the details and we'll feature them here.

13-18 Feb 2000
NSW Branch Western Field Tour, Dubbo
tel: (02) 6391 3143
graeme.tupper@smtpgwy.agric.nsw.gov.au

14-18 Feb 2000
International conference on managing natural resources and sustainable agricultural production in the 21st century, New Delhi, India
ISSS Dr A.K. Singh, Indian Agricultural Research Institute, New Delhi 110 012, India,
tel 91 11 573 1494,
fax 91 11 5755

28 Feb-1 Mar 2000
Sodicity Conference: Sodicity Issues in Agricultural Industries, Tatura Victoria
tel (03) 5833 5223
fax (03) 5833 5299
aravind.surapaneni@nre.vic.gov.au
www.nre.vic.gov.au/conf/sodicity/

2-5 March 2000
International Landcare Conference, Melbourne
(03) 96906744

11-17th March
World Water Congress, Melbourne
tel (03) 96820244
fax (03) 96820288

9-13 April 2000
5th Australian Waste Convention: New Millenium, New Opportunities, Sydney
tel (02) 9410 1302
fax (02) 9415 1599
quitz@dot.net.au

26 April 2000
4th WA Symposium on Ions in the Soil-Plant-Water Continuum, Perth
tel (08) 9222 3031
fax (08) 9325 7767
dallen@ccwa.wa.gov.au

29-30 June 2000
Biological Factors in Regolith Formation Symposium, Canberra
tel 02 6249 3566
fax 02 6249 0746
john.field@anu.edu.au

2-7 July 2000
Tillage at the Threshold of the 21st Century: Looking Ahead, 15th International Conference of the International Soil Tillage Research Organisation, Texas
www.agen.tamu.edu/organizations/istro

4-5 July 2000
Understanding Soil Data and its Application to Land Management, Toowoomba, QLD
tel: (07) 4688 1391
david.freebairn@dnr.qld.gov.au

11-12 July 2000
Soils 2000 - ASSSI WA Branch triennial conference, Avon Valley, WA
tel (08) 9333 6299
fax (08) 9387 8991
m.wong@ccmar.csiro.au

12-18 July 2000
First International Conference on Soils of Urban, Industrial, Traffic and Mining Areas, IUSS, Essen, Germany
www.ni-essen.de/bodenkunde

21-25 Aug 2000
International Symposium of Advances in Carbon and Nutrient Cycling and Catchment Processes in Managed Forests, Brisbane
tel (07) 38757494
fax (07) 38757459
p.saffigna@mailbox.gu.edu.au

4-6 Sep 2000
Eurosoil 2000, University of Reading, UK
Dr JH Gauld
tel 01221 318611
fax 01224 208065
www.bsss.bangor.ac.uk

17-23 Sep 2000
The First International Symposium on Phosphorus in the Soil-Plant Continuum, Beijing, China
www.general.uwa.edu.au/u/soilweb/welcome

3-8 Dec 2000
NZSSS/ASSSI National Soils Conference 2000. New Horizons for a New Century, Lincoln University, New Zealand
Shrewsbh@lincoln.ac.nz
tel 64 3325 2811
fax 64 3325 384
www.lincoln.ac.nz/cted/NZSSS

2002
17th World Congress of Soil Science, Bangkok
www.17wcss.ku.ac.th

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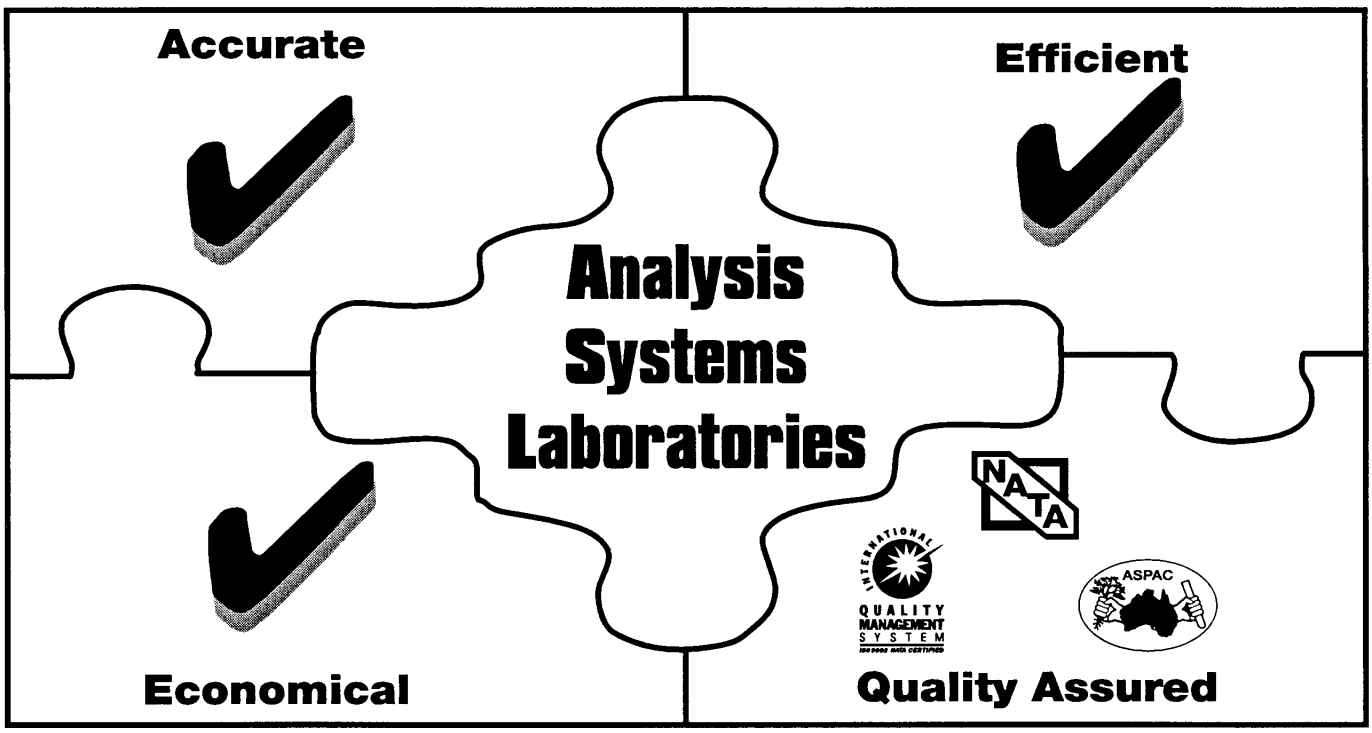

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