



CRC FOR
PLANT ~ BASED
MANAGEMENT
OF DRYLAND
SALINITY

Salinity Update

SA & NT

March 2006

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Welcome to the March 2006 edition of **Salinity Update** - the second electronic-only edition.

It would be great if you would alert/remind your friends/colleagues that this edition is now available and point out to them that they can subscribe to a reminder of each new edition at:

www.crccsalinity.com.au/publications/subscribe.php

- *Further details from Bruce Munday: (08) 8538 7075; bruce@clearconnections.com.au*

Change your favourites – the CRC has revamped its website, improving the functionality and progressively updating the content. The new address is www.crccsalinity.com.au

Focus on Salt #36 – the quartley national salinity newsletter published by the CRC Salinity in partnership with CRC LEME will be mailed to subscribers on 21 March.

This edition has articles on:

- Remote sensing tools to match perennial pastures to soils
 - SIF3 — towards better investment decisions
 - Lucerne — a passenger on the Silk Road
 - Lucerne — what are the limits
 - Online data for better land use management; and many more.
- *Download FoS from the CRC's website where you can also subscribe: www.crccsalinity.com.au/publications/publications.php*

The CRC's recent SA Node meeting featured:

- Snapshot presentations on all SA-led projects and research activities (its amazing how much people can cram into 10 minutes when pressed!). It is easy to be impressed with the quality and quantity of good science that has come from this relatively small state in collaboration with its CRC partners.
 - An update by CEO Kevin Goss on the review of the CRC's research program and an assessment of the CRC's progress towards achieving its objectives.
 - An update on the shape, direction and progress with the rebid CRC.
- *Further information from Glenn Gale: (08) 8303 9345; gale.glenn@saugov.sa.gov.au*

The Rural Solutions SA SaltSmart team

has planned several CRC workshops for SA during April to June (see next article), including two on Eyre Peninsula, one on Kangaroo Island and two in the Upper South East. These salinity management workshops focus on Perennials/SGSL and incorporate CRC Program 1 AWB Landmark involvement.

The Rural Solutions SA SaltSmart team has recently been concentrating on salinity monitoring and evaluation issues, producing piezometer network review reports for the Eleanor Catchment (KI) and Driver River Catchment (EP), along with a draft Salinity Benchmarking & Monitoring Report for the Wakefield River and Diamond Lake Catchment.

The SaltSmart team has also undertaken repeat EM surveys (ten years apart) on three focus catchments across the state. Ground-based EM survey results indicate the good correlation between depth to groundwater and salinity expression on the soil surface. One catchment shows an average increase in saltland extent of 3% per year, where groundwater continues to rise. The other two catchments exhibit a decrease in the area of saltland over a ten year period, where watertables have fallen (as a result of climatic trends and perhaps land use change).

- *Further information from Trevor Dooley: (08) 8568 6418; dooley.trevor@saugov.sa.gov.au*

CRC/Landmark Training Program is putting together several workshops over the next 3 months:

- A Lucerne and Perennial Pastures Forum (expected to be held in mid May) in the Keith District. SARDI/CRC researchers will deliver the most up to date technical information on lucerne growing and management as well as the newest information from the SGSL Program to Landmark and NRM and agency staff and a small group of key farmers.
 - A lucerne day on Wednesday 5 April for the eastern Cleve Hills and Driver River catchment areas.; Bill Bellotti will speak on companion cropping, Mark Stanley on fitting Lucerne in the landscape , Lyndon May on seed coatings
 - A workshop is planned for Kangaroo Island, focusing on salinity processes, the cause and effect and general management guidelines. The target audience is Landmark and their clients, NRM and other agency staff and other interested farmers.
 - Plans are underway to tailor an introductory workshop targeting newer Landmark consultants, farmers who are newcomers to the salinity issue and agency staff.
- *Further information from Hugh Longbottom: (08)8821 1555; longbottom.hugh@saugov.sa.gov.au*

Rural Solutions SA is undertaking grazing management trials on lucerne, saltbush and other perennials to improve their productivity in Mallee conditions. This work is being supported by the Murray Mallee LAP.

- *Further information from Scott Gillett: (08) 8595 9176; gillett.scott@saugov.sa.gov.au*

Lucindale Field Days (17-18 March) will feature (among many other things) a display of all winning entries in last year's SGSL National Photo Competition. Check out the PIRSA tent (where you can also have the salinity level of your water tested.)

- *Further information from: www.southeastfielddays.com.au*

The SA Government announced in January that it had committed up to \$15 million for the construction of new salt interception scheme in the Murtho area, between Renmark and the Victorian border.

This initial funding will allow work on the Murtho project to begin while negotiations to fund the remainder of this scheme are held with the Murray-Darling Basin Commission (MDBC) and local irrigators.

Salt interception schemes intercept and pump saline groundwater to disposal basins and most are located in the Mallee zones of NSW, Victoria and South Australia , from Albury to Morgan.

In South Australia , operational schemes are in place at Waikerie and Woolpunda, with new schemes under construction at Bookpurnong (almost complete) and Loxton.

- *Further information from DWLBC: (08) 8463 6800; www.dwlbc.sa.gov.au*

Precision irrigation must focus simultaneously on water efficiency and levels of residual salt. Dr Gerrit Schrale recently updated the SA MDB NRM Board on the Tri-State project that is investigating whether 85 per cent water use efficiency is sustainable in the SAMDB; and under what circumstances is there a risk of excessive salt accumulation in the root zone of the commonly grown crops in the Riverland and lower lake districts.

The project is developing a method of assessing both leaching efficiency for the extra water applied for the salt removal, and deep drainage from the root zone.

- *Further information from Gerrit Schrale: (08) 8303 9334; schrale.gerrit@saugov.sa.gov.au*

National Coordinating Committee for Salinity has agreed that there should be a National Land and Water Resources Audit II pilot project in each state to test the application of the salinity indicators/framework and processes to capture and report consistent data. This seeks to address the following questions:

- Where is land salinity monitoring data being collected and reported according to the agreed national standards?
- What information is useful for regional reporting? For national reporting? Spatially and temporally?
- What information is required that would provide a context in which to place specific information on salinity, and where is it? (For example climate and land use information, catchment and regional management action targets related to salinity?)
- What is the trend in salinity information at the catchment scale and national scale as identified from information provided at monitoring sites?
- What is the size of salt affected areas at a regional scale and how is that related to estimates of salt affected areas at smaller scales of assessment.

The pilot projects will be run by the relevant state agency in each state.

- Further information from Simon Veitch: (02) 6272 4643; simon.veitch@daff.gov.au

SEA News #20 is available on the web. The website address has changed slightly (but importantly) with the CRC's new address: <http://www.crcsalinity.com.au/newsletter/sea/SEANews20.html>

This issue includes three articles:

- Salinity economics and policy.
- The benefits and challenges of crop-livestock integration in Australia.
- Salinity: new knowledge with big implications.

In brief:

- CSIRO report on water reform
- National Market Based Instrument Pilot Program
- Auction for Landscape Recovery
- Salinity Economics Symposium

CRC Salinity scientist, **Dr Craig Beverly** and his CAT (Catchment Analysis Tool) team have won the Outstanding Achievement Award in the 2006 Victorian DPI Science Awards.

The CAT was developed as part of the Water use by plants in a landscape context project in the

CRC Salinity's People, Land and Water program and provides the information needed by the CRC to evaluate the likely impact of new farming systems, and help the CRC to focus its research on the most productive options. It was used in the CRC's EverGraze project to help set ambitious but realistic targets for new farming systems.

- www.crcsalinity.com.au/news/media.php?id=92

Evaluation of Salinity Outcomes of Regional Investment – the consultants have completed and submitted their report which will go to relevant Ministers at the end of March.

- Further information from Sally Petherbridge, Monitoring and Evaluation Section, Natural Resource Management Team: (02) 6274 2442; Sally.Petherbridge@affa.gov.au

March edition of the MDBC e-newsletter includes the following topics:

- Seminar explores water as a crucial factor for sustainable futures
- Improving the health of the Chowilla floodplain
- To subscribe online go to www.mdbc.gov.au/commcentre/elist/form.htm

Ready Reckoner for \$ investment in saltland pastures. Getting a handle on the real value of improved saltland pastures is not easy, but DAWA economist Allan Herbert is giving it a go by publishing a new Ready Reckoner for use by farmers or advisers. Allan has synthesised his findings from about 26 SGSL properties and summarised these for other farmers, especially as the most common questions people had related to cost of establishment and returns. The Reckoner is free and involves estimating three variables — the number of sheep which might be run on the pasture, the value of a sheep grazing day (you choose a value between 5 and 40 cents) and the cost of pasture establishment (between \$100 and \$800/ha). After that, it is a matter of lining up the numbers on a rotating wheel to reveal the number of years to pay off the costs and the cost-benefit ratio over 10 years. BCR = 3 means that you get back \$3 for every dollar invested. Allan admits it is probably just a starting point for discussion, and welcomes any feedback.

- Copies from Allan Herbert on (08) 9368 3680; email aherbert@agric.wa.gov.au

The CRC's online forum (<http://forum.crcsalinity.com/forum/>) was recently hacked by someone purporting to be from the Middle East. Wherever he or she was from, the hack resulted in the loss of all data (posts and registrations) since the previous backup – Oct 05. We are now back on line with added security. The forum operates at two levels – a limited number of categories open to all comers, with a further set of categories available only to User Groups, mostly within the CRC Salinity.

➤ *Further information from Bruce Munday: (08) 8538 7075; bruce@clearconnections.com.au*

Coming events

Professor Gabriele Bammer:
**“Integration and Implementation Sciences
 - Do we need a specialisation to help us
 integrate?”**

14 March (Noon-2pm) LWA Board Room, 86
 Northbourne Avenue, Braddon
nela.weeks@lwa.gov.au; Ph: 02 62636088

SGSL farm walks

Wed 29 March – Tumby Bay, Ungarra and
 Kappinee

*Linden Masters: 0427 979 422;
Masters.Linden@saugov.sa.gov.au*

Lucerne day – eastern Cleve Hills and Driver Catchment

Cleve Golf Club, 9.30 am Wed 5 April

*Linden Masters: 0427 979 422;
Masters.Linden@saugov.sa.gov.au*

26th triennial conference of the International Association of Agricultural Economists

Queensland, 12 – 18 August 2006
www.iaae2006.org

13th Australian Society of Agronomy Conference

10-14 September 2006, Perth WA
www.agronomy.org.au

CRC Salinity Communications - www.crcsalinity.com.au

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