NATIONAL PROGRAM FOR Sustainable Irrigation

Irrigation *update*

sustainable irrigation

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New guidelines and salinity converter now available to irrigators

The use of recycled water for horticulture (treated effluent) is a tantalising opportunity for sustainable irrigation. Research into the practicalities for growers in the horticulture sector has been a recent focus for the National Program for Sustainable Irrigation, which has funded research undertaken by a team at the Victorian Department of Primary Industries (DPI).

Vegetable growers using recycled water in South Australia and Victoria have been working with the research team to identify the potential and respond to the risks of using recycled water. As a result of the research project, a draft set of best management practice guidelines has been provided for them to use and refine in the field.

Vegetable growers who have signed on to use the recycled water have done so mostly to ensure security of supply rather than for any quality benefits. The draft guidelines growers have been testing lead them through the process of reviewing and adapting current management practices to enable a transfer to the use of recycled water.

Initially growers must have an approved management plan in place, which includes such things as signage on their properties and best practice irrigation methods. Through their quality assurance schemes or guidelines they must also have considered their customers' requirements.

Soil salinity levels should be monitored as a precaution to avoid the build up of salt around the root zone – growers need to be prepared to flush it below the root zone if levels climb too high.

Two simple printed meters have been developed by the project for growers to easily access salinity tolerance information for their particular vegetable or fruit tree crop. The hand-held 'wheel' informs growers of critical salinity levels that will start to affect crop yields, depending on their particular soil type. The reverse side of each wheel is a salinity unit converter that makes it easy to convert between the different units that salinity is measured in (deci-Siemen per metre (dS/m), total dissolved salts (ppm) etc).

The salinity unit converter has just been released, with many irrigators having their first chance to see one at the Irrigation Association of Australia conference in Brisbane this month. Program Coordinator, Murray Chapman, says interest in the converter is already strong.

The salinity unit converter is free and available from Land & Water Australia, by calling CanPrint on 1800 776 616.

In this issue:

"Successful and highly relevant" ... the report card is in

An evaluation of the National Program for Sustainable Irrigation undertaken by Hassall & Associates, has found that the Program has been extremely successful at creating a forum to identify and discuss issues impacting on sustainable irrigation.

"We are very pleased that the evaluation has identified the benefits from private and public sector interests coming together to lead collaborative investment in research" said Program Chair, Denis Flett. "Providing a forum for irrigation research investors is a unique function that National Program for Sustainable Irrigation achieves very well". The Program has 14 funding partners spanning irrigators, policy makers and planners.

The Program also rated very highly on direct relevance to industry, knowledge management and smart science. Its commissioned research responds directly to areas identified by commodity groups as impacting on production, and this ensures that the information to come out of projects is rapidly adapted and adopted.

"We don't do the research ourselves – we identify what needs to be researched, and commission the most able research teams. It's thanks to the abilities of our scientists from around Australia that our research scored so highly" said Denis.

The final evaluation report will help shape the Strategic Plan for Phase 2 of the Program set to commence in July 2006.

Commenting on the research direction set by the Program Management Committee, Program Coordinator Murray Chapman confirmed that issues around plant productivity were high on the list.

"By concentrating effort on a number of key issues such as soilwater and solute movement around and below the root zone we have the opportunity to improve plant productivity, as well as better management of solutes and any soilwater drainage," he said.

"At another scale there are pressing issues around systems level change that are being considered. By providing the end user with practical research results we will be able to achieve substantial improvement in the environmental and productive performance of Australian irrigation."

Spreading the word: Program co-ordinator Liz Chapman (foreground) talks with a conference delegate at last year's ANCID conference.

Some of the Program's leading researchers, pictured at the conference, included (back) Steven Falivene, Dr Gerrit Schrale, Graham Harris, Dr Q.J. Wang and Rob Kuzich. In front are Prof Barry Hart, Dr Keith Bristow, Dr Anne-Maree Boland and Denis Flett, Program chair.

www.npsi.gov.au

Workshop held to help irrigation sector get the best out of National Water funding

The National Program for Sustainable Irrigation joined forces with the National Water Commission (NWC) and the Department of Agriculture Forestry and Fisheries to undertake a workshop to assist the irrigation sector to respond effectively to a call for funding proposals under the Water Smart Australia Program, which closes on June 16, 2006.

A highlight of the workshop was the diverse range of people attending.

A significant number of on-ground irrigators and other water managers such as water boards and authorities, from all parts of the country including the far north, were there.

The workshop looked at case studies that illustrate good approaches to strategically investing to improve the efficiency of irrigation in Australia.

National Program for Sustainable Irrigation Program Coordinator, Murray Chapman, said that the workshop focussed on the key areas that make up the total water system for irrigation.

"River management operations have been identified as one area where there are opportunities for restoring flows to better manage sensitive ecosystems that can simultaneously provide production benefits," he said.

"Another area is delivery system infrastructure and management, where a reduction in transmission losses and better alignment of farm water demand with supply can achieve substantial water savings, and integrating groundwater and surface water management to improve Australia's track record in water management.

"For example, there is the possibility of using some aquifers as underground storages, thereby saving evaporative losses associated with large dams."

Mr Chapman pointed out that there are many other areas where progress can be made.

"We can create more efficient metering systems, with radio links to be able to read remote meters," he said.

"We can improve our water markets to improve trading rules, and allow sharing of water rights between the environment and irrigation. And then there is plenty of scope for changing irrigation systems on farm."

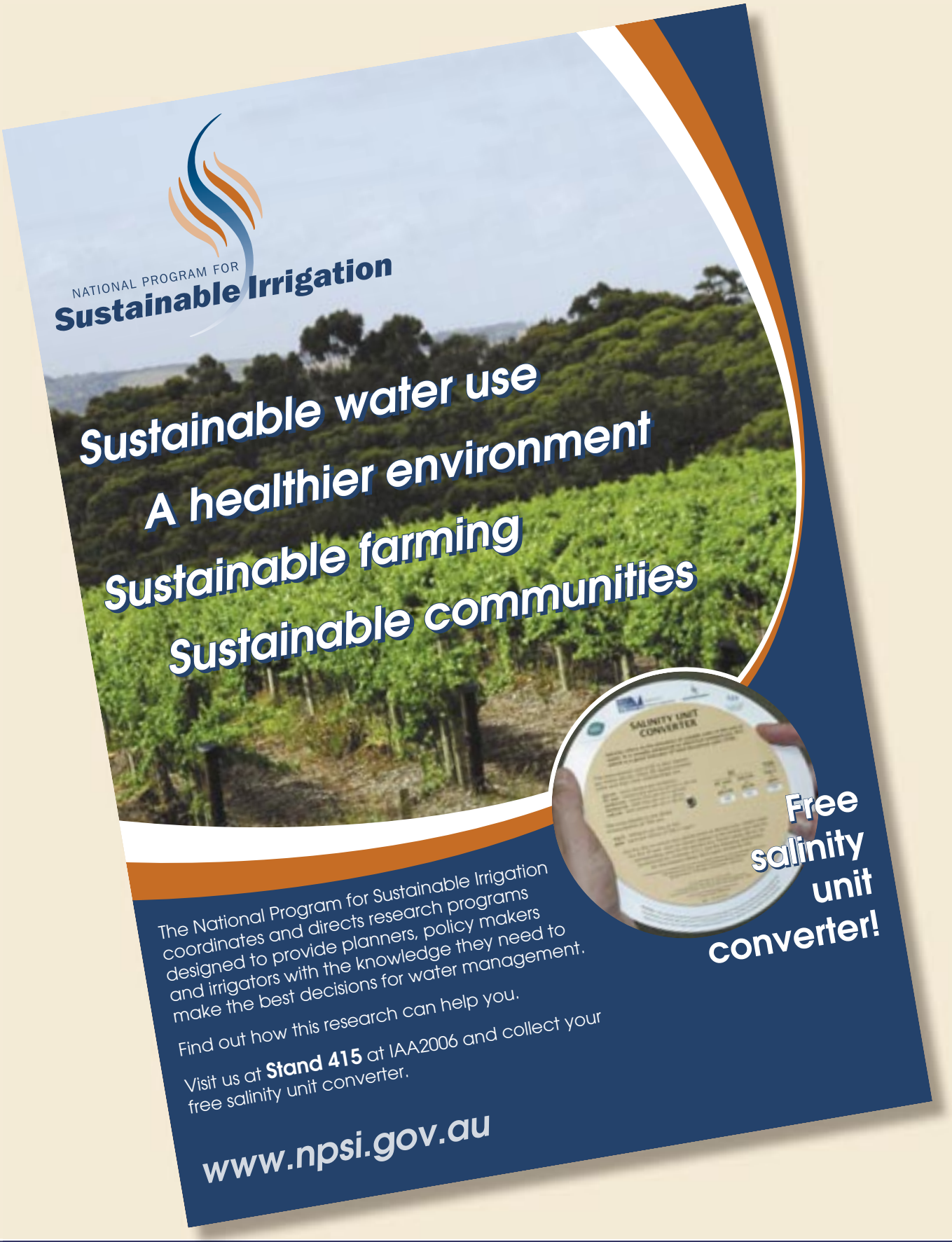
Organisers emphasised the need for industry to think strategically about how to best use the funding available from the Commonwealth.

The NWC will be producing proceedings from the workshop including a question and answer guide.

The NWC recommends that anyone with an idea for a project contact them as soon as possible and register an expression of interest. NWC can provide feedback as a proposal is developed.

Substantial water savings are critical for a sustainable future.

NATIONAL PROGRAM FOR
Sustainable Irrigation



Free salinity unit converter!

The National Program for Sustainable Irrigation coordinates and directs research programs designed to provide planners, policy makers and irrigators with the knowledge they need to make the best decisions for water management.

Find out how this research can help you.

Visit us at **Stand 415** at IAA2006 and collect your free salinity unit converter.

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The National Program for Sustainable Irrigation is managed by Land & Water Australia on behalf of the partners. The partners include irrigators, water authorities, research agencies, state and Commonwealth departments and commodity groups. For information about becoming involved in the Program, please contact:

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