

Sweet success in utilising saline water

Date palms have become a figurative oasis in the 'desert' of rising water tables and salinity on Dave and Anita Reilly's South Australian property in the Riverland region near Berri.

Selected as a case study for the Innovation in Irrigation showcase this year to highlight innovative ways of maximising the use of declining water resources, the date palm project involves the Reillys pumping from the brackish Gurra Downs backwater of the Murray River to irrigate date palms.

The innovation showcase, funded by the Australian Government's Natural Heritage Trust, was held in August in Bundaberg, Queensland, as part of the Australian National Committee on Irrigation and Drainage (ANCID) conference.

According to Dave Reilly, dates can operate in an extremely salty root zone environment. He says that the electrical conductivity (EC) of this year's irrigation water

from Gurra Downs is between 2800 and 4000, making it highly saline compared to water from the main Murray irrigation channel, which measures between 300 and 400 EC.

Reilly suggests that less efficient watering of a primary crop such as vines or citrus will result in better drainage, in terms of leaching out salts to provide a less saline and more productive growing environment. The water can then be harvested from drains and re-used in secondary, salt tolerant crops, like dates.

Unlike other fruit crops, date palms can also cope without irrigation for a season and be 'turned on' again when water becomes available – an attractive attribute where continued water restrictions and variable water supply are expected.

Nineteen date palm varieties will be assessed for salinity tolerance, yield performance, management ease and climate suitability.



Making productive use of saline water by irrigating date palms saw Dave Reilly's property selected for the Innovation in Irrigation showcase. Natural Heritage Trust

With funding from the Australian Government's New Industries Development Program, the Reillys have established a micro-propagation centre and nursery to multiply their imported palms, which they distribute Australia-wide.

Other trials on the Reillys' property use vineyard wastewater and highly saline artesian water, and one dates stand is planted over a high water table. For more information, visit www.gurradowns.com.au

Older may be wiser when it comes to energy, water use

When it comes to being frugal with water and energy, the over-60s are winners, according to the results of a recent large-scale survey of Australian consumer attitudes to sustainable housing.

The survey of 1700 homes carried out in April 2007 by Sydney-based Connection Research found that older age groups are more likely to switch off appliances and have shorter showers than under-25s.

The report looks at individual and household implementation of water and energy conservation, and at attitudes towards climate change, and energy and water conservation.

More than half the households surveyed had electric water heaters, which make a higher contribution to greenhouse gas emissions than gas or solar, and more than 80% of those in near-new homes had air-conditioning installed.

Water resource 'snapshot' shows need for groundwater mapping

The National Water Commission has released the second stage of a baseline assessment of Australia's water resources, *Australian Water Resources 2005*.

Australian Water Resources 2005 is a baseline measurement or snapshot of Australia's national water resources during 2004–05, reflecting the state of our water resources at the start of the National Water Initiative.

The second report details integrated surface water and groundwater balances for 51 priority water management areas, including all capital cities; statistics on water use



A regional water resource assessment of the 950 sq k Finke River catchment in South Australia is included in the baseline assessment.

in the Australian economy in 2004–05; and a new national framework for assessing river

and wetland health.

'The report shows a need for enhanced groundwater and

surface water management and assessment, including further mapping and analysis of the extent of groundwater/surfacewater interaction,' commented the National Water Commission's Professor Peter Cullen.

The commission regards this report as an important resource for government bodies as they continue to implement the National Water Initiative, described as the 'blueprint for water reform in Australia'.

The full text of the latest assessment is available at www.water.gov.au