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The power of partnership

Back in 2006 when then Prime Minister John Howard requested that CSIRO lead a one-year stocktake of the Murray–Darling Basin’s total water volumes and capacity, it set in train the largest and perhaps most complicated research project the organisation had ever undertaken – what researchers are now estimating is the world’s largest water resources audit. Achieved within the ambitious one-year target, the Murray–Darling Basin Sustainable Yields Project is testament to the capabilities and adaptability of Australia’s science research network.

It is also therefore evidence of the power of partnership in Australia for successfully tackling the considerable environmental challenges before us. On pages 8–11 Graeme O’Neill reviews the project’s scope as the first reports from its component parts are published and integrated into action planning for the Basin.

Soil carbon has been well highlighted as critical to the viability of Australia’s farmland, but pages 28 to 31 report how raising soil carbon levels may be the most accessible and effective means we have of significantly reducing atmospheric CO₂ within a decade. New recognition is emerging of its multiple roles as a climate change mitigator, potential carbon credit earner and fundamental restorer of productivity.

The Australian Soil Carbon Accreditation Scheme (ASCAS) is operating on the premise that through simple organic farming techniques across the country, massive amounts of carbon can be sequestered from the atmosphere into soil carbon by perennial plants. This quickly reverses the huge loss of both



carbon and water to the atmosphere under conventional farming regimes and confers myriad other advantages – for farmers across the globe.

Led by Dr Christine Jones,

who is advocating a greater research focus on the capacity of root ecosystems to lock in carbon quickly, ASCAS is aiming to demonstrate the benefits of organically led soil carbon increase, developing a win-win framework by which farmers can take up the financial and environmental advantages. It appears as a very timely new frontier.

Of final note in this issue is the Weeds CRC’s warning (see page 34) that herbicide resistance may develop in plants unless careful integrated weed management protocols are adopted for GM crops in Australia. It coincides with the lifting of moratoria on GM canola in Victoria and New South Wales. Weed resistance has emerged with intense GM cropping in the US, but Canadian farmers have avoided the problem with their integrated techniques. While GM crops will convey some advantages here, they must be grown with responsibility, integrity and respect.

Enjoy your reading.

James Porteous
Managing Editor



Willem van Aken, CSIRO Land and Water

Next, in issue 142

April–May’s issue explores the ‘pop’ in the controversial population component of the sustainability debate, and sketches how 21st century irrigation must operate given new constraints in Australia.