

Natives tackle cotton pesticide residues

Pesticides that build up in the recycling water used on cotton farms can be significantly reduced using a simple biological filtering process developed at the Cotton Cooperative Research Centre.

Doctoral student Michael Rose of the University of Sydney used a combination of native plants and woodchips to efficiently remove the toxic residue from recycled water storage dams.

Rose spent nine months over the last three years living and breathing the cotton farmer life.

'Cotton farmers are doing the right thing by the waterways by recycling the water they use on farm. But now the water, sometimes stored in dams the size of ten football fields, is building up toxic chemicals.'



Pesticide use on cotton is high but coming down. CSIRO Plant Industry

His work shows that by simply incorporating native plants into storage systems, pesticide levels are significantly reduced. 'In some cases, we saw a fifty per cent reduction in just ten days,' he said.

Woodchips and other filtering mediums such as basalt and gravel beds were also tested and showed promise in improving water quality.

The work should better protect native animals, including birds, amphibians and

reptiles that are drawn to the water sources on cotton farms where they can be affected by the residues.

'The great thing about using plants to act as "treatment machines" is that they break down toxic chemicals to non-toxic molecules. So even though the plants die annually, the toxins are permanently removed from the system, naturally,' said Michael.

Rose was one of four finalists in the Cooperative Research Centres 'Young Water Scientist of the Year' award at the recent International Riversymposium conference in Brisbane.

He believes his research shows the benefits of natural methods over typical 'heavy' engineering solutions for improving water quality.

Rose and the Cotton CRC will be building on links already made with area-wide management groups and discussing future research with Landcare and other catchment organisations.

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Help design the world's biggest metropolitan park

Landcom and the NSW Department of Planning are asking for the public's ideas in jointly developing the first stage of the Western Sydney Parklands, set to be the largest metropolitan park in the world.

Stretching 27km from Quakers Hill in north Sydney to Leppington in the south, the 5500 hectare Parklands corridor links north-west and south-west growth sectors, and is a key part of the Sydney Metropolitan strategy. Stage one, in the North, the first of nine, is called the Bungarribee Precinct.

To kickoff the project the developers are running a web-based 'Ideas Competition' that aims to attract inspirational suggestions to help make the Parklands a special place for the community and visitors to enjoy. In addition to contributing to the master planning of the Parklands, all entrants have a chance to win from a prize



Looking south across the entire Parklands area. Landcom/NSW Department of Planning

pool of \$150 000. The competition opened on Sunday 16 October 2005 and will run until Friday 25 November 2005.

There is a particular emphasis on ensuring the development maximises the opportunity to employ environmentally and culturally proactive plans.

These already include a 50-hectare site at Doonside to provide a 'premium green suburb' of up to 750 new homes, 43 hectares of 'green' employment land at West Huntingwood to cater for up to 800 new jobs, and initiatives to involve central Indigenous and heritage input.

According to the planners, 'The Parklands will be the "Lungs of the City", a major long-term contribution to restoring the balance between nature and growth in Sydney, and enable Western Sydney's community to connect with the outdoors.' Over 350,000 trees and shrubs have been planted in the Parklands by Greening Western Sydney, with around 9000 of these planted in the last year along Eastern Creek at Doonside alone.

The Parklands are already home to a range of existing facilities – Olympic shooting, equestrian, mountain bike, softball and baseball centres, Eastern Creek Raceway and Dragway, Prospect Reservoir, Fairfield City Farm and Nurrangy Reserve.

More information:
www.westernsydneyparklands.com.au