

SYNERGY

THE TERRACOTTEM ADVANTAGE

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A SWAMP.
SOME DOLLARS.
& WILD CATTLE.



When wild cattle were spotted in the revegetation site, the cowboys were called in...

Just when you'd thought you knew all there was to know about revegetation, along comes a project with its own cowboys: the good kind, with dogs and horses...

Louise Duff has been working in natural resource management for 15 years. Currently she's managing the Hunter region for a newly amalgamated organisation – Conservation Volunteers Australia and WetlandCare Australia. This not-for-profit greening outfit may have an unwieldy name, but it's easy to spot the very tidy pairing between the ecological scientists of WetlandCare Australia and the armies of field crews managed by CVA. Straight to the point, Louise describes it as, "a really good match".

The first project to benefit from the new operating scenario has been a parcel of land wedged between Newcastle's waste-water treatment works and Hexham Swamp. This is no random planting, but rather a carefully designed piece of revegetation works, worthy of the fact that this particular swamp is listed in the Directory of Important Wetlands of Australia and flows straight into a Ramsar* site. A once diverse wetlands – a rich mix of plants, birds and fish – across both the wet and dry parts of the landscape, it has suffered from the hand of man. "Flood gates were installed in the early 1970s to keep out the tide and create an area of low-grade farm land. Since 2008, Hunter Local Land Services has progressively reopened the gates – the last one in 2012 – and the return of birdlife and fish has been amazing."



Finally, with the site secure, the planting could begin on what is part of a much larger aim to reinstate the area to its original wetlands state.



To support nature's efforts to re-establish itself, Louise Duff and the team successfully applied for a Federal Government grant under the 20 Million Trees Programme**. Their contribution via the planting at Hexham Swamp will be close to 11,000 trees and tall shrubs. Seven thousand were planted a few weeks ago and the balance will follow in autumn. Once established they'll form a mix of species which together mimic the plant community that was once growing happily in the wetlands.

"We sprayed and deep-ripped the site with a tractor. Then two CVA Better Earth volunteer teams arrived – each fully supported with a supervisor, vehicle and tools – and they worked for three weeks to plant out the tube stock." All went in with TerraCottem and tree guards. "I've been using TerraCottem since 2005. We're spending so much on these trees, I see it as insurance, protection against drought." As it turned out, after the initial watering-in post-planting, the rain arrived despite predictions that it wouldn't. The result is a planting that's, "going really well".

But before you think this project ran smoothly, let's go back to that tractor moment when the site was being prepared. Paul Davidson, the retired farmer who was doing the work (on a Massey Ferguson he'd first driven, aged eight) spotted something that gave everyone pause. "He told us we had wild cattle on the site, which is a major concern given their potential for destructive impacts – pugging and compacting the soil, bringing in the weeds and rooting up the newly planted trees."

Something had to be done before the volunteers and the trees arrived on site. What happened next was a brilliant example of a co-operative hands-on solution. Rhys Blackmore, from the site's owner Hunter Water Corporation, immediately took on the challenge and through their environmental office, chipped in to buy materials for an electric fence installed by CVA's Green Army, so that the planting could proceed. Luke Booth from Local Land Services helped out, sending in the cowboys whose job it currently is to muster and control what has turned out to be a very canny group of around 30 very wild cattle, complete with bulls, cows and calves.

So all in all it's a very-good-news story. The trees are in and are thriving. The volunteers have made a genuine difference. The local water authority has ridden in to help the project over a bump in the road. The not-for profit organisation is achieving what it sets out to do – to restore wetlands, one project at a time – and the funding body, in this case the Australian Government, has happily funded effective work on the ground. Tick, tick, tick, tick, tick.

*Ramsar, is an international treaty signed in Ramsar Iran in 1971, which aims to boost conservation of Earth's wetlands.

**The project is supported by the 20 Million Trees Programme, through funding from the Australian Government's National Landcare Programme.



Volunteer Paul Davidson on the tractor he first drove when he was eight. Thanks to him, the wild cattle were spotted before they could do too much damage.

THE TC ADVANTAGE

TC Advantage is a package deal. It's about supplying TerraCottem (more about that in a minute), along with all the training, technical specification and compliance needed to turn a tricky project into a genuine long-term success. So when anyone has a turf, street tree, revegetation or whatever project to tackle, bringing in the TC Advantage expertise means you get: advice on which TerraCottem product to specify; training so that it's applied for maximum benefit; and monitoring to ensure compliance within the project's specs.

As for TerraCottem, it's a brilliant soil conditioning treatment because it works on various fronts at the same time...

To start with, it uses two main mechanisms to encourage substantial root development – polymers and root growth precursors. The polymers are a little like water-holding crystals except that TerraCottem's hydroabsorbent polymers have been carefully selected and well researched. This means that instead of just one polymer with a narrow water-holding and water-releasing ability, there is a group of them providing the same function over a wide range, for years. To put it crudely, more water can be stored and released under a broader variety of conditions. (To put it precisely for specification purposes: TerraCottem has an absorption capacity of a minimum of 4500 g H₂O/100 g in distilled water using Method of Analysis CEN EN 13041, with a minimum of 90% of the water contained in the polymers being plant available.)

As for the root growth precursors, by definition a precursor is a chemical compound which leads to another. The precursors found in TerraCottem do exactly this, and for a very good reason. If you put growth hormones into soil, they rapidly biodegrade. But if you put precursors into the root zone, the plants get a kick-start by synthesising their own growth hormones. And this conducive environment – for optimum cell division and elongation – stays like this for 12 months.

Then there is a nicely varied collection of plant nutrients – soluble mineral fertilisers, in a format suited to the early growth phase of a plant; slow-release fertilisers, designed to offer a constant source of food over many months; and synthesised organic fertilisers which focus on the soil, stimulating microbiological activity and general soil health.

Add this all together and the result is fast and furious root establishment. This means greater accessibility to water, fewer losses, and, given the reciprocal dynamic between roots and canopy, noticeably vigorous growth. In the longer term, the soil conditioning power of TerraCottem means that plantings are buffered from stress. It's great stuff.



TERRACOTTEM®

TC Advantage P/L FREECALL 1800 658 281 Email: info@terracottem.com.au Web: www.terracottem.com.au