

SYNERGY

THE TERRACOTTEM ADVANTAGE

TOWNSVILLE'S GETTING GREENER

Unless someone's given you the inside word on Townsville, you'd probably think this city is a naturally lush, tropical paradise. Well, it's not. And if you stop to ask someone whose job it is to make Townsville green – say Julie Roach or Nigel Grier – they'll tell it like it really is. Be warned. It's a tough tale, but it has a happy ending...



Townsville from The Strand - a greener city thanks to some forward thinking public open space managers and TerraCottem.



Julie Roach works in the Parks Services section of Council. Her expertise is trees and horticulture, and her responsibility covers the urban landscape in and around the city. Having worked for Council for 15 years, Julie is familiar with Townsville's unique challenges. "We have awful, heavy, sodic clays with highly soluble sodium. And at the opposite end, we also have soils which are virtually sand. We usually get a wet season, but the rain only falls over two to three months, turning the clay to a disgusting soup. The only thing that is reliable about our rainfall here is that it isn't." Combine all this and you have a very tough scenario to work within. Natural irrigation for establishing plantings is available for a short space of time only, and the soil options are scary, not to mention salty.

So it's not surprising to hear that up until relatively recently, successful plantings weren't that common in and around the city. "We'd be lucky to get a 60 per cent establishment rate for our street trees and in some of our tougher sites, where we'd be trying to establish native screen plantings, it was more like 50 per cent."

Looking at Townsville today, something must have changed to create the green spaces around the city, though obviously the soils and rainfall haven't. To begin with, local government is driven to green up the city and it supports sustainable initiatives to plant. "When we survey, people tell us that they like the green and shady parks and that they have an increasing pride in being here. As a result, it keeps local government focused on continuing the Greening Townsville program.

However, given the tough conditions, the solution was never going to be just plant more, water in and walk away. "We needed something to help hold moisture in the sandy soils, sustain plant available moisture during the prolonged dry season and reduce the salt uptake in the clays." As it turns out, the best of the products tried and tested (and costed) is TerraCottem. "If a plant isn't showing signs of suffering by November (the rains usually arrive in January), then we know it's working. Our street tree plantings are now up to between 90 and 95 per cent survival, and the water holding product within the TerraCottem is managing to exclude the salt, which has meant, for example, the more difficult planting along the airport access road has, after several failed plantings, achieved 90 per cent establishment."

Nigel Grier has also had his fair share of Townsville's challenges – but from a contractor's perspective. He shares the greening objective, but his background is weighted more towards botany and soil science (rather than horticulture) so that he integrates biodiversity, ecology and science into the urban landscape. This approach has also helped to make a difference – prompted in the early 2000s when the Council took stock of what had been attempted and achieved over the previous decade. An honest look at the environment they were dealing with was overdue. "We carried out soil tests and began to select plant species from a different palette. And as manual watering is expensive, we worked out ways to reduce our requirements."

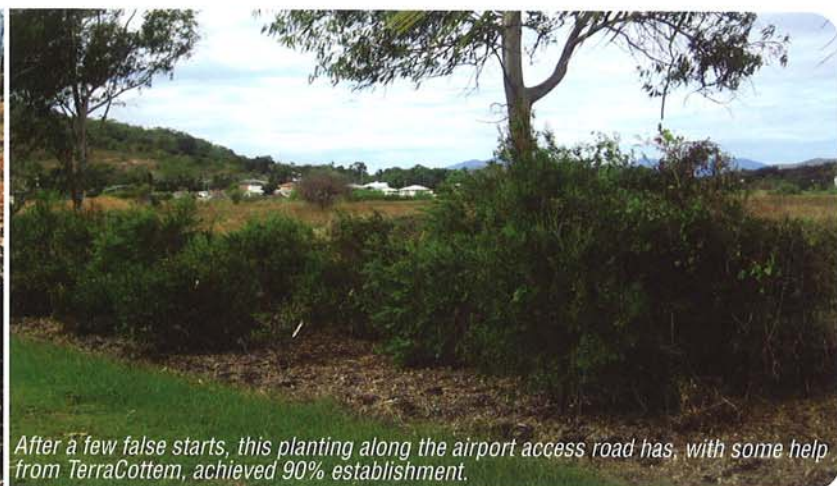
It was about this time that the council managers returned from a conference where they'd been brought up to speed with TerraCottem. "We tested it first on World Heritage listed Magnetic Island as part of a road widening project. A combination of the topography and fill meant that it was expected to be a tough site to establish. After planting with TerraCottem, we irrigated weekly for a month and then the natural wet season followed. Of course this is anecdotal, but the plants grew exceptionally well, producing vigorous, healthy growth."

Not that TerraCottem was the only product being tested in the field, "but the results were always a bit hit and miss". Only TerraCottem performed consistently in each situation.

Planting into rich alluvial soils at Ross River produced growth that was between three and four times the size of plants growing without the benefit of TerraCottem – "literally the difference between leaves the size of a LP record versus a CD". And the fast establishment brought with it other benefits. "Introduced pasture grasses are a threat when dry, as a grass fire can do serious damage to our rainforest species." However the larger leaves, and increased volume of leaf drop hampers the grasses' establishment.

The end result is that Townsville City Council specifies TerraCottem for most planting works – street trees, revegetation, private developments. Even if they didn't, Nigel Grier wouldn't plant without it.

Since Townsville's first order in March 2002, there have been a total of over 30 projects in which TerraCottem has helped to boost the success rate.



After a few false starts, this planting along the airport access road has, with some help from TerraCottem, achieved 90% establishment.