

SYNERGY

THE TERRACOTTEM ADVANTAGE

Walking into the shop to buy some milk, not many people think about the passing moment they're about to have with the person behind the counter. It's a simple transaction – milk for money, and you're out the door. But there are times when it's not so much about the milk as about the relationship that comes with it. Here's an example. [Read on >>>](#)

A GOOD MATCH



Given the commitment - heart and soul - of Greening Australia's people, supporting them as they work to build healthy and diverse landscapes is both easy and rewarding.

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Greening Australia and TC Advantage (TC) have just signed a memorandum of understanding. Having enjoyed a supplier-customer relationship since 1998, both parties have spent the last six months dancing around each other simply because each can see some serious value in getting to know the other even better.

“It seemed like everywhere we went in Queensland we'd invariably run into Greening Australia people.” What struck TC's Russell James was the way these people were accepted – into local government, Department of Main Roads, wherever. “In other words, they'd have to be good, and I was right. They've technical depth and community respect and because of that they're one of the most professional operators we've ever met.”

On the other side of the dance floor, Vin Naidoo of Greening Australia was looking at ways both to reduce the organisation's overall resource input and save funds in the longer term. One of the most obvious ways to do this was to explore consolidating Greening Australia's relationships with a set of major suppliers, among them, TC Advantage.

“One of the main reasons we'd originally decided to give TerraCottem a go was its history in producing food in marginal countries. On the basis of what it had achieved on the ground in depleted sandy soils, we were prepared to test its performance in Australian conditions. It proved to be a good holistic solution – a case of one 'pill' to suit most scenarios, and for the last two years we've used it in 80% of our work. It reduces the risks and minimises ongoing costs.”

Despite the fact that this pairing looked like an obvious winner, neither party has rushed into it. Says Russell, “We don't enter into a relationship like this lightly. It took a series of meetings to work out whether this was going to be a comfortable fit.”

There has been a great deal to discuss. Greening Australia is keen to have its staff supported through training sessions run by TC, and by having a TC extension officer on hand. Both parties understand the value of post project audits and the opportunity which that will provide to build up invaluable data. In terms of internal culture, both TC and Greening Australia have enough in common to share approaches and goals, but they also differ so have fresh viewpoints to share. And of course, they're both aiming at a similar outcome.

“The individuals who work for Greening Australia invest their hearts and souls ultimately to create habitat through restoration.” Vin's words are echoed by Russell, who puts it in the context of his family's farming background. “I've seen the sorts of practices that lead to degradation. I've also seen what can be achieved to turn this around.”

Of course, TC still needs to make a profit, and the not-for-profit Greening Australia must keep its costs down, but ultimately they're now working together towards a healthy and diverse landscape which is appreciated and valued by us all.



Trainee, Bianca, pictured here in the nursery where Greening Australia does what it does best - sharing the skills and re-establishing biodiversity.

“TerraCottem... proved to be a good holistic solution...”

Part of the TerraCottem package – Greg Plummer adds his own experience to the project



GREG KNOWS HIS STUFF

Working with something as dynamic and unpredictable as a living landscape does have its thrills, but then there's always the potential for some spills. If you work in the green industry - and you're any good at what you do – then you already know how important it is to keep your eyes open. It's all about spotting the best methods and materials, and pulling them together with information based on experience to produce the results.

Which is why TerraCottem comes as part of a package, and part of that package, at least in Queensland, is Greg Plummer. He's there to support anyone who uses the stuff – Delfin, the Brisbane City Council, Landscape Architects like DBI Design and Greening Australia. TerraCottem is a proven performer in the field, and when it's teamed with someone like Greg, you have a great combo. So who is Greg?

Born and raised in Mascot, and probably because he suffered asthma as a child, Greg decided he didn't want to spend his working life indoors. “I started in a plant nursery and studied horticulture, then became an apprentice at The Lakes Golf Club.” When he left seven years later he was Assistant Superintendent, moving to Penrith as the Superintendent (six more years, where his children grew up literally, on the course), and finally to the Gold Coast where he worked for the Construction Company building Paradise Springs GC.

Which is why, when Greg rocks up on site to take a look around, he brings with him a fair amount of experience. Sometimes it's just being able to take a quick look around and see what needs to be done and in what order, but at others it's more a case of solving a mystery...

“We once had a fairway that was wet, slippery and smelly. We all thought it was mostly to do with shade but when we took a closer look - and discovered that the soil was powder dry beneath the turf - we guessed the other cause. We scratched years' worth of thatch out until the water was able to get through.”

Greg applies a factual approach to the role he now plays – project support for where TerraCottem is specified. He makes no assumptions: auditing the project, taking soil samples away for analysis, and generally kicking the dirt around. “It's about getting the facts before you act.”

Perhaps most importantly, Greg keeps coming back to take a look, because the follow-up evaluations are in some ways, even more important. What has worked well, what hasn't, and why? Greg stores it all away, ready to offer up what's been learnt at some relevant moment in the future.

“We had a follow up visit on a project where it had been claimed that the TerraCottem had virtually disappeared, moving down through the soil profile. We dug holes to work out what was going on, filled them with water, and sure enough, the polymers rehydrated. They were there after all, but we'd shown that the irrigation wasn't penetrating deep enough to wet the TerraCottem. Changing the watering practice - less frequently but more heavily – sorted the problem.”

Having Greg around has got to be a bonus however you look at it. And if your project doesn't sit inside Queensland's state borders, don't worry because there's a team of people very like Greg to help out wherever you or your project may be...

WHAT IS TERRACOTTEM?

TerraCottem is a tough one to understand, probably because it works on various fronts at the same time. So let's keep things simple,...

To start with, TerraCottem 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 co-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. (And for those who question toxicity, TerraCottem's co-polymers are potassium-based and non-toxic unlike sodium-based water crystal products.)

Now, let's talk about 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.



LISTEN TO PHIL

Just when you think Phil Hewett's soap-box rave threatens to take off into the realm of fanatical, he comes good with the facts, the science and a brutally clear assessment of human kind, and you're gasping. He knows his stuff, and what makes his rant so good is that his special topic is something we already understand because it's all around us – or, according to him, it should be.

We're talking about trees, and we're listening to Phil* describe the way they should be thought about and managed in the urban setting. "We must have a intuitive sense of their value because, after all, people plant trees. But limited surveys also show we have a split view - that in working class suburbs many people view trees as a nuisance where in other areas of wealth and education it's the opposite."

The truth is, the tree lovers are right. "Trees improve air quality, help to conserve energy, reduce storm water, improve social amenity and support commercial reinvigoration – and there's good research to support all of these claims."

Despite that, for 25 odd years of Phil's working life he's seen a dysfunctional approach taken to the way our trees are managed and he developed a distrust of local government as a result. "It's always a case of, I just need to get rid of that tree – picked off for a driveway, blocking pipes, being in the way of utilities, or for the 'mess' it generates. But together these trees come down in their thousands and are rarely replaced with something equivalent. It can take 20 years and a lot of effort to get back what was removed especially as space limitations and liability concerns dictate ever smaller trees which simply can't reinstate lost benefits. Large growing trees are from eight to twenty times better at dealing with storm water and air quality than small trees."

Despite this scenario, Phil is upbeat and with good reason. At last there is growing recognition for the fact that trees collectively do a job and therefore that the collective urban canopy has value. The first signs were an environmental levy which has funded Phil's role as Coordinator, Newcastle Urban Forest Project with the City of Newcastle. Instead of continuing to manage trees in terms of numbers planted each year and percentage lost, Phil's aim is to develop a long term strategic plan to get on with the business of managing an urban forest – "a plan that's rational, reasonable, fits the books and adds to the sustainable life of the city." In practice it's all about maintaining and improving upon canopy density within the City. Since Council adopted the Urban Forest Policy, everyone has a role in building this – from development planners, engineering, maintenance, construction to greening and bushland management. But there is still work to do on the strategies, with one gaping hole in particular: how do you measure and quantify the value of this urban forest?

"We're looking to the United States where 30 billion dollars' worth of research with both agricultural and forestry support has produced some useful tools. We'll need to adapt these to work under Australian conditions so that we can feed in the information about the canopy and get data on its values."

The timing is good to build public support given the current focus on sustainable themes. "We're a selfish society which expects instant gratification. Eighty years ago people planted trees for our benefit. We need to recognise that and plant something to be part of a continuing cycle."

*Phil Hewett is City Arborist with the City of Newcastle, one of the many councils around Australia which specifies TerraCottem as part of its street tree planting program.

Phil Hewett appreciates the almost priceless social and practical value of trees. He also has some clear ideas on how they could be managed better.

THOSE HARD WORKING TREES

Just one large mature tree intercepts 10,000L rainfall per annum. If you take one of Newcastle's mature figs it's been working solidly for the past 60 years and, according to Phil Hewett, the amount of stormwater it's processed during that time is 600,000 litres. And since there are actually 456 mature figs hard at work in this particular urban fig forest, Newcastle's built stormwater management system hasn't had to deal with 273 megalitres of rainwater.