

SYNERGY

THE TERRACOTTEM ADVANTAGE

WHAT'S IN THE MIX?

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Prepare yourself to hear something you probably already know; something you agree with; and something you wish you could sort once and for all. In this case landscape architect Des Cloake gets on the soap-box and does a good job of summing up the challenges and solutions.



Des Cloake onsite during the construction of the latest stage of retirement living buildings at Aveo Clayfield. The site includes a heritage listed residence and the gardens fronting the restored residence will be constructed on the roof of a car park being set into the hill.

But first a little about Des and the practice he's a part of. PDT operate out of appropriately green offices in Brisbane's edgy James Street precinct. They've been around for 75 years and the sort of projects they tackle are significant and complex – shopping centres, hospitals, museums and cultural centres. PDT is a one-stop shop for urban design, architecture, interior design and landscape architecture. Des and the landscape architecture team are forever specifying, and it's one aspect in particular that hooks his attention – the soil mix. It seems – surprise, surprise – that soil is often seen as an item on the spec sheet where budget overruns can be clawed back. In other words, since the soil doesn't matter, there are savings to be had by bunging in whatever's cheap.

“On one job, we were working with a subcontractor that wasn't on our recommended list. And at a meeting where costs were being reviewed, this subcontractor turned to the client and said, ‘we can leave all that's above the ground as is, but everything that's below ground, that you don't see – we'll save your money there’.”

The sad thing is, the contractor thought this was a valid solution. There are still too many operators in the industry who either fell asleep during soil science, or never had the opportunity to learn about it in the first place. But that doesn't change a basic fact, that everything hangs on the soil, and this is the point Des often finds himself making as part of the consultation process. “I turned to the client in that meeting and explained why changing the soil specification wasn't negotiable. I told him he'd risk thousands of plants dying.”

Des often uses the following analogy to get the point across: that you could mix your own concrete in a wheelbarrow and it would technically be concrete, but you wouldn't know what it was capable of supporting. For him it's the same with soil. Just because it's brown and called soil doesn't mean it's fit for purpose, and this is why he goes to the effort to draw up detailed specifications. These he happily provides as part of an overall process designed to improve the growing media his planting designs depend upon.



Carparks are at best a harsh planting environment. This example at Stockland, Hervey Bay is thriving thanks to the TerraCottem in the mix.



“I’m more and more rigid in how I write specs so I can give someone a straightforward guide of what has to happen and when. Then I supply them early on in a project so that everyone knows what we’re talking about, what’s expected and why.” This type of preparation is helpful later on when cost cutting often takes place – it makes it easier to ensure the soil specifications are retained.

“On another project where water was limited, while we did provide irrigation for the planting near the doors of the shopping centre, everything else including the car park had to cope with just establishment watering.” When the suggestion was made later on to cut costs with the soil mix, (which included TerraCottem to boost establishment), everyone referred back to the specification documents which supported the initial decision. A tricky planting in a hostile setting – car parks are notorious – was buffered and protected.

Des challenges the way the industry uses the Australian Standard (AS4419) for soil on many jobs. In his view AS4419 starts from the wrong premise: it’s not designed to provide an optimum growing environment but rather is the minimum needed to support plant life. And in his years of being in the business, the quality of what is supplied as AS4419 fluctuates sometimes to the point of toxicity. His solution? “I recommend getting a specialist soil consultant to confirm the soil mix is fit for purpose. I also make good use of TerraCottem as a means of hedging my bets for a good result by improving the water and nutrient exchange capacity of the soil.”

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®

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