



Nursery & Garden Industry  
Australia

# Case Study

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FOR IMMEDIATE RELEASE

Monday, 15 May 2017

## Producing more with less: Cameron's Nursery

### Background

When specialist perennial wholesale business Cameron's Nursery ran out of water for a second time during the 1990s due to prolonged drought and no access to potable water, owners Sonja and Andy Cameron began researching new ways to capture and recycle water, to ensure it didn't happen again.

Located north-west of Sydney in Arcadia, Cameron's Nursery has been operating for 25 years, and has won a plethora of awards for its commitment to growing plants sustainably. It has received recognition from the United Nations, the Prime Minister's Award and the Keep NSW Beautiful initiative.

Like many small businesses, Cameron's nursery grew quickly when it first opened its doors in 1994. The rented site had no access to town water, and limited capacity to build water infrastructure, with the only water source coming from a nearby dam.

Ms Cameron said that when the business finally moved site in 2000, it marked the beginning of their journey to find and implement alternative irrigation practices as a means of drought proofing the site.

"Back then, we were using 25 megalitres a year, which is a lot by today's standard. At the time, there was limited training on water management, and it was before the internet, so you could only rely on your local irrigation shop to find the right advice," Ms Cameron said.

"So we started looking at available research from around the world – from countries like Israel and learnt from those who had little water to waste.



*Cameron's Nursery, NSW.*



Nursery & Garden Industry  
Australia

## Case Study

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“We selected capillary watering as it had the ability for the plants to take up the amount of water they required, which reduced the total amount of water applied. We also reviewed our overhead sprinklers after attending a WaterWork course and selected a water efficient sprinkler with good coverage.

“I remember placing the order for the tech line and we were advised that we had to buy the minimum order, which was a considerable investment from the business at the time.

“However, we finally received the shipment, set up a trial site, and started laying out the layers and tech lines, experimenting with spacing and slopes until it finally came together.”



*Example of capillary watering, Cameron's Nursery.*

### **Developing a water management plan**

Ms Cameron says their real sustainable journey started in 2000, when they received a small grant from the NSW Department of Primary Industries (DPI) which enabled them to build a complete water management plan around recycling water and waste.

“We worked closely with Bill Yiasoumi from the NSW DPI to develop a comprehensive irrigation and drainage plan, to enable us to capture and recycle all water that fell onto the property, whether it be by roof or in trenches – and it’s been our bible since.

“All our trenches have multiple uses: for city water, septic, irrigation, and even for telecommunications.”

Today, Cameron’s Nursery uses 5 to 8 megalitres a year, paying homage to best practice methods and programs they’ve learnt and acquired over the years, such as water efficient sprinkler heads together with the capillary water beds. The nursery uses overhead water sparingly; only in extreme heat, significant frost or to re-wet the plants.

### **Improving water quality**

In 2011, NSW DPI also helped Cameron’s Nursery to further improve its water management and identify potential savings around energy.

“Our dam isn’t huge so when it rains, it stirs up the clay. Through the grant, we were able to install a Clearstream filter that cleans water efficiently without using chemicals, plus flocculation tanks,” Ms Cameron said.



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Australia

## Case Study



*Water treatment, collection and recycling at Cameron's Nursery.*

“There’s a lot of thought that goes into something like flocculation, in order to provide that commercial investment. In receiving a grant you become an innovator and there is always a lot of trial and error.

“Today, we have over 200 people coming to look at our water management every year and hopefully they all take something away.”

### The importance of knowledge sharing

Ms Cameron says industry accreditation programs like the Nursery Industry Accreditation Scheme Australia (NIASA) and EcoHort™ program help to check the health of their water, while at the same time encouraging best practice across all facets of the nursery.

“Water is fundamental to our business. We are NIASA and EcoHort accredited, with the potential to go with BioSecure HACCP in the future. We believe in best practice: everything that we do – we refer back to these programs,” she said.

“For example, we’ve recently invested in environmental sensors. The electrical conductivity (EC) and Ph levels can easily become unbalanced in a fully enclosed system, particularly when you’re recycling all your runoff water.

“We’ve implemented Agnov8’s environmental sensor cloud base technology at various locations on our site, in water recycling areas, dams, tanks and greenhouses. These units are durable, with solar panels enabling us to place the units all over the nursery.

“Before, we were testing our water once a week; now we can test every five minutes. It means that no matter where I am in the world, I can see what’s going on.”

Ms Cameron said that being a first generation nursery grower has meant learning from scratch, and that often means learning the hard way, but says knowledge sharing within the

industry has been fundamental.



*Aerial view of Cameron's Nursery.*



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## Case Study

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“The industry is becoming increasingly tech-savvy due to developments like cloud technology. We attend a range of industry conferences, levy-funded workshops, and try to keep abreast with the latest research and development.

“We keep active in the industry, so as to ensure we can remain ahead of the curve. We’ve learnt an enormous amount from our peers, particularly by sharing years of experience and gained knowledge.

“We’re a green industry and, for us, it’s all about collaborating with our key partners across the supply chain to ensure that ongoing growth and prosperity of growers.”

NIASA and EcoHort™ were developed by Nursery & Garden Industry Australia in partnership with Horticulture Innovation Australia, using the nursery R&D levy and funds from the Australian Government.

**There is also a video available here: <https://youtu.be/iOMVXikpdw>**

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**This communication has been funded by Horticulture Innovation Australia Limited using the R&D nursery levy and funds from the Australian Government.**