

Become a Business **Watersaver** today

Water efficiency for nurseries and landscapers

Australia is the driest inhabited continent on earth. Despite this, we have one of the highest per capita water consumption rates in the world.

Significant population growth in the region is predicted. By implementing water efficient techniques you can become a Business Watersaver and help secure our regions water supply for today and the future.

Benefits of becoming a Business Watersaver

- Water bills and associated costs are reduced
- Healthier plant stock
- Increased employee engagement and awareness
- Improved public image
- Knowing you are helping to build a more resilient and sustainable community



Did you know?

1. A leaking tap that drips once every second can waste up to 12,000 litres of water each year.
2. Worn nozzles can waste 30% of water.
3. A one millimetre hole under normal pressure (around 70psi) can waste 3000 litres every day.
4. All nurseries, turf farms and market gardens are required to prepare and submit a Water Efficiency Management Plan (WEMP).



Water Efficiency Management Plans

As part of the Queensland Water Commission's (QWC) long-term demand management strategy, Water Efficiency Management Plans (WEMPs) were introduced to assist you to better manage water use, improve efficiency, save on water costs and reduce water consumption in line with regionally agreed targets. Businesses across South East Queensland are benefiting from WEMPs, with the nursery and garden industry demonstrating some of the biggest savings.

Case studies

Production Nursery – Reduction to date: 80%

Over a four year period (2005–2008) water consumption fell from 3.083 million litres to 627,000 litres. The owner of this small production nursery achieved this significant saving by installing rainwater tanks totalling 22,250 litres, replacing the existing sprinkler irrigation system to a drip feed system and changing plant stock to drought resistant plants.

Retail Nursery – Reduction to date: 61%

Over a four year period (2005–2008) water consumption fell from 2.649 million litres to 1.024 million litres. The owner achieved this by installing a rainwater tank, replacing his old worn irrigation system with a drip feed system, introducing drought resistant plants and reducing stock to suit demand.



Industry benchmarks

The Nursery & Garden Industry Queensland (NGIQ) recommend the following benchmark values for your nursery. Further details can be obtained by contacting the NGIQ.

Measurement	Recommendation
Mean application rate The amount of water applied over the irrigated area expressed in mm/hr	Less than 25mm/h
Coefficient of uniformity The uniform application of irrigation water across the irrigated area	More than 85%
Scheduling coefficient The ability of the irrigation system to apply water to every container at the same rate	Less than 1.5



10

simple steps you can take to improve the water efficiency of your nursery

- 1** **Water in the low evaporation periods of early morning and late evening** and save up to 25% of your water use.
- 2** **Install watering wands with on/off valves or triggers.** You will reduce your water consumption and overall watering time as you won't need to turn the hose off at the tap when you get distracted or move around the nursery.
- 3** **Install micro-irrigation systems such as drippers.** They use 30–50% less water than standard sprinkler irrigation and have better application efficiency (between 75%–90%).
- 4** **Link monitoring to automatic control systems** or install timers on irrigation systems.
- 5** **Use pressure gauges and/or pressure reducing valves.** Doing so can reduce your water wastage by up to 40% as too much pressure leads to misting and uneven application while too little pressure causes poor distribution.
- 6** **Install a rainwater tank** to catch rain run-off from your roof.
- 7** **Use a broom to sweep paved areas** instead of hosing them down.
- 8** **Design a water efficient layout** with plants requiring less water grouped together. This is called water zoning.
- 9** **Use a shade cloth** to protect plants from the effects of sunlight.
- 10** **If practical, store runoff water** to treat and recycle through the irrigation system.

Other systems to consider include: pulse systems and bottom watering systems such as sand beds, capillary mats and troughs. All allow the potting mix / soil to absorb more water reducing runoff and excess irrigation.

An ongoing maintenance plan is key to ensuring your nursery continues to be water efficient

This plan should include:

- regular readings of water meters – an increase in water usage usually indicates a leak
- regular checks of irrigation system nozzles for wear and tear
- regular checks of automatic systems flow and pressure – this minimises misting due to overpressure in the lines
- regular checks for leaks and dripping taps – they not only waste water, they look terrible and leave a poor impression with customers
- regular removal of weeds from pots as they use more water than the plants in the pot
- regular application of an absorbent potting mix that has a high level of rewettability
- altering your watering schedules to take into account seasonal variations
- reminding employees to report any new leaks and encourage them to also share with you their water saving ideas



To help you make informed decisions about products and services that will help to save water in your business, visit

www.smartwatermark.org





Further information

This fact sheet is designed to inform you about specific water efficiency measures for your nursery and landscaping business. Further information on becoming a Business Watersaver can be accessed from the sources listed below.

- Sign up to receive the Allconnex Water 'Water Biz' business e-newsletter and be kept up to date with:
 - permanent water conservation measures
 - water saving tips & product innovations
 - financial assistance opportunities
 - competitions & initiatives
 - complimentary prompt materials for staff and visitors
 - State Government initiatives and updates
- The Queensland Water Commission provides information on sustainability programs including Water Efficiency Management Plans and government water rebates – visit www.qwc.qld.gov.au
- The Nursery and Garden Industry Queensland runs workshops and training courses on water efficiency and employs staff specifically to handle water-efficiency related questions – visit www.ngiq.asn.au
- The Nursery & Garden Industry Australia provides Nursery Papers and the Nursery Industry Water Management Recommended Guidelines, providing guidance on the recommended management of water – visit www.ngia.com.au
- The Irrigation Association of Australia provides training programs and certified auditors to assess the efficiency of irrigation systems – visit www.irrigation.com.au

Did you know?

1. The average rainfall in South-East Queensland is around 1200 millimetres per year. By installing a 4500 litre rainwater tank you could capture as much as 100 kilolitres from the roof of a three bedroom house!*
2. School environmental programs generate growth for the gardening industry, fostering a new generation of gardeners and helping back-fill the skill and knowledge gap of their parents.

*Based on a roof area of 100m²

The more stars the more water efficient

Look out for the WELS 'star rating' label when you buy new appliances and check www.waterrating.gov.au for a list of water efficient products that can save money and help the environment.

Water Restrictions

Saving water is everyone's business. Ensure you're up to date on the current water restrictions, so you continue to use water efficiently.

Visit www.qwc.qld.gov.au for the latest water restriction information.

Visit us at allconnex.com.au

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