

**Dealing With Drought**  
**Queensland Home Garden Expo- Nambour 2006**

*Many gardeners suspect that water restrictions are here to stay no matter what the weather does. While much of the focus of waterwise gardening education has revolved around **plant selection**, gardening in dry times is as much about **how you garden as it is what you plant**.*

*In response to the restrictions, some home owners have embarked on their own backyard blitz, filling gardens with natives, succulents and grasses in the mistaken belief that banishing exotic flowers and foliage will save water. Look around and you will notice that **deep rooted trees and well-established shrubs have faired remarkably well despite the water restrictions**.*

**1) The Most Efficient Way to Store Water Is In The Soil**

Avoid water leaving your property

Your property is a huge catchment area. Take advantage of this by directing runoff from driveways and paving on to lawns and gardens. Use porous materials like gravel on walkways so that water can soak in and become available to trees and shrubs. Incorporate mulch filled swales into larger garden beds and on sloping land. They will serve as infiltration pits when heavy rain falls.

Recycling organic waste so that the soil holds moisture

There are some good commercially available compost products available from your local nursery. Unfortunately, most have been pulverised, deodorised and pasteurised. They contain nutrients and are a source of organic matter, but much of the life we hope they will inject into our soil has generally been processed out of them.

There is really no substitute for home made compost. Resolve to recycle all garden clippings and kitchen waste back into the garden. Compost bulk garden waste in a heap. Buy a bin or bury kitchen scraps. Work your way around the garden digging holes 30cm deep between existing trees and shrubs and bury kitchen scraps each day.

Other strategies for improving the moisture holding capacity of soil include incorporating coir peat into the soil. Avoid gimmicky, synthetic products. Read the label, if you need to wear gloves and a mask to use it – don't bother. It cannot be good for the soil.

Use seaweed and other wetting agents

Always water new plants in with liquid seaweed. It stimulates soil organisms like fungi and bacteria, which in turn help release nutrients to plant roots. Seaweed increases the disease resistance and drought tolerance of plants by thickening cell walls.

Seaweed is also a wetting agent. In other words, it helps the soil to absorb and retain moisture – but keep in mind that it takes time to work. For more instant results try one of the commercially available products available. Munns has an organically registered granular soil wetting agent and Organic Crop Protectants has a product called Eco-Hydrate that actually helps soil absorb

moisture from the atmosphere (dew and humidity).

## **2) Rainwater Tanks And Grey Water Can Sustain Your Water Needs**

### **Install A Tank**

Take advantage of the government rebate to install a rainwater tank. At least then you can water the garden when you want and how you want. But remember, unless you intend to install an inline pump or a tank stand, the water will only really be of use if you can store it at the highest point in the landscape and use gravity to create pressure.

A five thousand litre (1100 gallons) water tank will be empty in under 3 hours at normal household flow – so think big and install the largest tank you can afford and can accommodate. Drip irrigation is still the most efficient way to water your garden, so consider connecting the tank to a pump and drip irrigation system. Install a programmable timer and you can basically forget about water all together.

### **Recycle Grey Water**

The water that currently goes down the drain from your laundry, kitchen and bathroom equates to the average household outdoor use. Simple diversion valves available from hardware companies and mail order suppliers like Green Harvest allow water to be temporarily diverted for garden use. Be careful what you put down the sink, especially in the laundry. Use only no phosphorous and low sodium laundry products (*ref. Lanfax Laboratories*) such as:

- *Aura*
- *Aware Environmental Concentrate*
- *Biozet*
- *Bushland*
- *Earth Choice Australian Earth Concentrate*
- *Eco-wise Washing Soda*
- *Envirocare Plus*
- *Lux Flakes*
- *Planet Ark Ultra Concentrate*
- *Trinature Herbal Concentrate*

Overcome potential problems of salinity by avoiding the use of water softeners, add mulch and compost, use gypsum (displaces sodium ions), add sulphur if pH rises. Flush with fresh water if available. See *'Create An Oasis from Grey Water'* by Art Ludwig.

Always apply grey water directly to mulched garden beds. Do not store it for later use as this will result in a dangerous build-up of e-coli bacteria and an offensive smell. Avoid spraying grey water directly onto plant foliage. Do not use it on vegetable gardens or lawns as this has the potential to bring householders in direct contact with bacteria that the grey water may contain. Never allow grey water to pool on the soil surface or run into neighbouring properties.

## **3) Design and Management Guarantees Water Efficiency**

### Avoid Close Planting

Avoid the mistake of planting at close intervals to create instant landscapes. Allow each plant sufficient room to develop a good root system. Use annuals, herbs and short lived native plants to fill in the spaces until longer term plants become established. Always add compost whenever you plant. You will be providing a reservoir of moisture holding material in the soil around the roots of your plants. Think about getting the water close to the roots of new plants with devices such as the Borby Water tube

### Group Plants According To Need

Select and group plants according to their water needs. Put plants that need more regular watering close to exits, entrances and areas of activity. You are more likely to notice that they need a drink and attend to them more regularly.

### Apply Soil Improving Mulch

Select mulch for its soil improvement qualities not just its aesthetics. Mulch should break down and require replacing. Decomposing mulch adds organic matter to the soil. Lucerne, pea straw, coir peat and finely chopped cane mulch are some of the best. They will help break up heavy clay, increase the water holding capacity of sandy soil, hold on to nutrients and help sustain plants in dry weather.

### Consider Use Of Anti-Transpirant Sprays

Commercial anti-transpirant sprays reduce the water loss from the foliage of plants by up to 50%. Stressguard and Envy are two brands available. They can be useful when you are trying to establish new plants during dry times, when the weather is dry and windy, if you live by the sea, when you go on holidays and on plants that dry out quickly like pots and hanging baskets.

### Fertilise Sparingly

Use limited quantities of organically based fertilisers so as not to create overly thirsty plants. Boost individual plants with liquid fertiliser applications. Limit applications of fertiliser to the lawn.

### Water Where And When It Counts

Reduce areas dedicated to grass or accept brown lawns during long periods without rain. Learn to water plants on the basis of need and their ability to recover. Direct the water to the root zone and really soak each plant. Move the mulch, water by hand around the roots of plants and replace the mulch. Water only when plants need a drink, but water deeply at this time.

**Apply these strategies and you will dramatically cut water use and your garden will look better than ever!**

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