How to garden without wasting water
FACT SHEET

December 2002

Water is the earth's most valuable resource. In Australia, where gardening is one of our most popular pleasures, we need to make sure that we garden in ways that don't over-use or waste water. All gardens can be planned and managed to significantly reduce water use and wastage, without impacting on the joys and pleasure that gardening brings.

At the Royal Tasmanian Botanical Gardens we save water by:

- Watering at night or early in the morning.
- Mulching our garden beds and adding compost made from our own green waste to the soils.
- Using minimal water use irrigation systems and controlling the amount of water we use.
- Recycling the water from our ponds and water features.

Take a close look at your own garden

It's worth spending some time walking around your own garden with water saving in mind. Some of the aspects you should consider in an analysis of your garden include:

- The types of soil present. (You can improve soils to increase water penetration and retention.)
- Your garden's layout, in particular how water flows across the site. (You can control, harvest and reuse your water.)
- Different garden surfaces. Paved paths, patios and driveways contribute to water loss through run off and evaporation. Lawns are major water users. (You can change garden surfaces.)
- Your irrigation system, including hoses and sprinklers. Many older-style garden sprinklers are inefficient. (You can change to more efficient alternatives – some are available at low cost.)
- The direction of prevailing winds. (A well placed windbreak can protect from hot, drying winds.)
- The range of microclimates present around your house. (Watering times and techniques in different areas of your garden should reflect the relevant microclimates –i.e. areas with hot morning sun can be watered in the evening.)

Gardening without water waste is easy and affordable.

1. Start with your soil.

If your soil is sandy it will dry out quickly, and once it is dry it is difficult to re-wet. If the soil is kept moist then water will penetrate easily. To improve sandy soil you should:

- Incorporate good, broken-down organic matter as compost and/or manure.
- Apply a mulch to the soil surface. This will breakdown slowly, adding to the amount of organic matter in your soil over time.
- Apply soil wetting agents to your soil (these products are available from garden centres) to assist with the soaking of the soil and water retention.

Clay soils can also resist water penetration, especially if they are dry and compacted. Clay soils need to be 'opened up' by working Gypsum through them and can be further improved by incorporating good, broken-down organic matter such as compost or manure.

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2. Shape the lay of the land.
With a little planning you can shape your garden areas to reduce the amount of water running off the property. By shaping paths, beds and lawn areas appropriately, you can harvest water for use or re-use. Some examples you may wish to consider:

- Paths can be shaped so that water runs off into adjacent beds or spreads out across lawns.
- Paths can also be shaped to direct water to a central area, where you can grow a range of moisture loving plants.
- Garden beds and even lawns can be slightly 'dished' rather than 'domed' to help trap water.
- Drains can be used to trap water running off hard surfaces and then designed to direct it back into the garden for re-use.

3. Consider your lawns.
Lawns require large amounts of water to keep them green over a dry summer. You may wish to reduce the area of your lawns, or you can reduce the amount of water you use on them by:

- Allowing your lawn to dry out from time to time. Usually it will recover without ill effects.
- Aerating your lawn to reduce compaction and increase water penetration and retention.
- Applying a wetting agent to the lawn to increase water penetration and retention.
- Allowing the lawn to grow longer between mowing days, and increasing the mowing height.

4. Use mulches to save time and water.
Applying mulch to the soil surface works to reduce soil moisture loss through evaporation, which helps your soil stay moist and cool longer and makes it easier to re-wet. There are many different mulches available including composts, barks, wood chips and gravels.

- Organic mulches will break down and help improve the soil structure.
- Gravels will last a long time and are generally low maintenance.
- All mulches help to reduce weed growth.
- Carefully chosen ground cover plantings can provide a living mulch.
- Horticultural weed mats are also useful under mulch.

5. Choose an efficient way to water.
There are a number of inexpensive new ways of applying water to your garden. Look for options that:

- Direct water to the root zone of plants, where it is needed most.
- Avoid irrigation systems with broad cover but lack control.
- Irrigation systems like micro or leaky hose systems prevent a lot of water waste.
- Watering systems should apply water to garden beds with minimal overlap onto hard surfaces.
- Fit timers to your irrigation system - it is easy to waste water through forgetfulness or oversight.
- Avoid water run-off in difficult areas by short repeated watering sessions to allow soaking in.

6. Choose the right time to water.
Avoid watering in the heat of the day when evaporation will drastically reduce the amount of water available to your plants. It is best to water in the evening or early in the morning.

7. Choose the right amount of water.
To create deep rooted plants capable of surviving with less water you need to water for a sufficient period to ensure good soaking of the soil; water less often and only as required; and avoid excessive water run off. If run off continues to be a problem look at ways to improve your soil.

8. Select your plants to suit your site.
There are many attractive plants, both native and exotic, that will grow well with minimal watering. Look around your neighborhood at the plants growing best under dry conditions. Visit your local nurseries, who will be able to provide you with a list of drought hardy plants. Visit the Botanical Gardens – we have a short self-guided walk that illustrates some of the drought-resistant shrubs and ground covers planted in the Botanical Gardens.

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