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Water Smart Gardening for Home Gardens

What is Water Smart Gardening?

Water Smart gardening is the practice of minimising water application to gardens whilst keeping gardens healthy in dry times.

Caring for Plants in Dry Times

To reduce stress to plants during dry times ensure good plant nutrition. Apply a complete organic fertiliser such as pelletised poultry manure at the recommended rate. For native plants choose a fertiliser formulated for natives. Reduce applications of high nitrogen synthetic fertilisers especially to lawns as this promotes soft lush leaf growth which is not favourable in dry conditions. Providing a cool root run will help many plants during hot dry weather. This is best achieved by using a mulch. Plant tonics such as seaweed emulsion have been shown to reduce plant stress and can be safely used on all garden plants. Increasing the organic matter content of soils is very helpful in improving a soils ability to hold soil moisture. Things such as composted animal manures, spoiled lucerne hay, worm castings or compost are all excellent soil improvers for the Water Smart garden.

Mulching

Mulching is very important for conserving soil moisture in dry times. Mulching can reduce moisture loss from soils by as much as 60%. Mulching provides a source of organic matter which, when it decomposes or breaks down, provides food for plants and soil organisms as well as improves the waterholding capacity of soils. For garden beds and young trees use a coarse mulch, such as hardwood chip mulch or spoiled lucerne hay, and spread to a depth of about 8cm. Keep a few centimetres clear of mulch around the stems of plants to prevent stem rots developing.

During dry times, it is important to keep all garden soils covered to prevent loss of topsoil from wind erosion. Sheets of brown cardboard can be laid on the ground and secured with rocks as a low cost practical method of mulching.



Fine mulches like sugar cane mulch help conserve soil moisture in herb and vegetable gardens.

Using Greywater

Greywater refers to domestic use water, such as washing machine, shower and bathroom handbasin water. Many modern residences will have greywater plumbed to water tanks marked by purple pipes and fittings. Greywater can be a valuable resource for gardens, but care needs to be taken to avoid contact with potentially harmful bacteria. Do not apply greywater directly to food plants like edible herbs, strawberries and vegetables. Choose a low phosphorus laundry powder to avoid build-up of phosphorous and sodium and apply greywater to several areas in the garden so as not to concentrate these nutrients in the topsoil. To find the Greywater Fact Sheet visit www.bathurst.nsw.gov.au/waterrestrictions.

Sheltering Plants

Hot dry winds increase plants' need for water and can increase plant stress. For very drought-sensitive plants or especially precious plants, it is helpful to provide a windbreak to protect against the worst prevailing winds. Hessian or shadecloth can be secured to hardwood stakes using staples or zip ties to reduce exposure to drying winds.

For vegetable gardens, row covers using shadecloth or small aperture bird netting will be very helpful in providing shelter from winds as well as reducing exposure to hot summer sun.

Containerised plants should be moved to a position where they do not receive a lot of radiant heat from driveways, paved paths and brick walls. Positioning containerised plants where they receive morning sun rather than the hot afternoon sun will help conserve soil moisture. Mulching of containerised plants is also recommended, especially for terracotta pots which can retain heat. Wicking pots will ensure better watering of containerised plants, particularly in hot dry conditions.



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Care of Vegetable Gardens

During especially dry conditions, it makes good sense to reduce the area of your vegetable garden and give priority to maintaining the perennial plants. These are the plants that live for longer than one year, that is they are not annuals. Perennial vegetable and foodbearing plants include things like rhubarb, strawberries, raspberries, asparagus and the longer-lived herbs like sage, rosemary, thyme and oregano. These plants will have their roots to depth, so they will be better able to survive dry times. They are also the more expensive plants to replace so it makes good sense to prioritise them over other plants.



Give priority to the perennial plants like rhubarb during dry times.

To care for your perennial plants add plenty of organic matter to the soil as this will act like a sponge and hold any rainwater or tank water in the topsoil. Additions of compost or aged cow or horse manure will help build up the organic matter of soils. Provide a generous layer of mulch in the form of pea or sugarcane mulch or spoiled lucerne hay. Avoid planting annual vegetables and herbs in very dry times as these are very likely to 'bolt' or go to seed when they become water-stressed.

If you have hardy vegetables like kale, silverbeet, spring onions, beetroot and onions still growing from an earlier planting then these can be retained and watered with bore water and tank water.

Water Saving Wicking Beds

Wicking beds are a very water efficient method of growing vegetables, flowers, herbs and berries. They are an enclosed growing system where water does not percolate to the groundwater and all nutrients are retained in the wicking bed. These growing systems use 80% less water than conventional in-ground growing methods. It is possible to make your own wicking bed or you can purchase a ready-made unit. Visit the ABC Gardening Australia website at www.abc.net.au/gardening/factsheets/wicking-works/9652718 for details on how to make your own wicking bed.

Water Smart Plants

Many Australian plants from low or medium rainfall areas are naturally adapted to tolerate dry conditions. Small leaves, grey foliage and hairy leaves are often indicative of drought tolerant plants.



Mediterranean plants such as lavender, sage, and thyme are also adapted to tolerate prolonged dry conditions. Try to plan garden areas so plants are grouped according to their water needs.



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