

Australia is the driest continent in the world. The drought is starting to bite hard and restrictions are in place throughout Melbourne. Water is scarce, presenting a challenge for gardeners. Mulch is an essential tool for creating water smart gardens.

BENEFITS OF MULCHING

- Water conservation; stops soil drying out by slowing evaporation, keeps the soil moist & reduces watering by up to 60 70 %
- Suppresses weeds and weed seed germination by blocking light. Weeds are undesirable as they compete with plants for moisture and nutrients as well as looking unsightly among prized specimens.
- Keeps soil temperature constant by acting as an insulator retaining heat in autumn and spring. Cooling and evening out temperature fluctuations during hot and variable summer conditions.
- Organic mulch adds extra organic matter to the soil as the product breaks down. Improves soil structure and health of plants
 over time, improves drainage. Encourages earthworm and soil microbial activity & improves condition and fertility.
 - Aesthetically pleasing, improves the "look" of the garden, by creating a natural appearance.
 - Environmental factors; such as erosion control, mulch protects soil from rain. Sediment control, mulch slows run off velocity.

TYPES OF MULCH

Mulches can be organic or inorganic. Examples of organic mulch include; straw, shredded bark and wood chips. Examples of inorganic mulch include; scoria, stone river pebbles and synthetic mulch. Organic mulches break down over time, adding organic matter to the soil. Inorganic mulches do not break down and whilst they look great when used in pots, can look messy in the garden if they become littered by leaves and other debris.

Organic bark based mulches are a great choice & are available in grades from fine, through to medium and coarse. Medium grade bark is best as they don't absorb any moisture and allow rain-fall, or irrigation water to infiltrate the soil. Another plus is that they take longer to break down so you don't have to apply them as often. The disadvantage of finer mulches, are that they absorb moisture, thus forming a seed bed for weeds.

> Some gardeners choose to apply compost as "mulch", it is however better to use a coarser material, ie: straw or bark. Ideally one should begin by putting compost on the garden as a "soil conditioner" or improver then top-dress with mulch. See below; "Soil types and soil conditioning".

SOIL TYPES & SOIL CONDITIONING

There are 3 types of soil in Australia; clay, sand and loam. Clay soils tend to become "sticky" when wet, they risk holding too much water and can become easily compacted. On the other hand, when they dry out, they form a crust, hard as concrete and impenetrable by water. Sandy soils have excellent drainage, causing them to loose or leach water and nutrients easily. Loamy soil that is crumbly is ideal base for most gardens. Loam soils have a good combination of large and small particles, as well as a balance of sand, clay and organic matter.

Organic matter such as compost and manure can be added to water repelling clay and sandy soils. This helps "condition" soil; by improving their structure, helping to retain moisture and nutrients, as well as introducing beneficial microbes to the soil.

Gypsum can be added to clay soils to help break them up, thus improving soil structure and availability of water and nutrients. Wetting agents can help to break down waxy surfaces on soils, to ensure water gets to the root zone. Water storage crystals can also be effective during dry times.

MULCH SELECTION AND APPLICATION PROCESS

Only use premium quality "hammermill" or "graded" mulch, as opposed to "cheaper" alternatives (i.e. mulch created from green waste). Mulch is applied using wheel barrows and bins, placing it directly on garden beds. Distributing the mulch by hand enables us to lay an even 75mm cover. This is the ideal depth, being thick enough to suppress weeds, yet thin enough to allow water to penetrate. Upon completion much is watered in by hand, this helps clean mulch dust from foliage as well as helping product to settle. Note that during water restrictions we may not be able to water product in by hand.

RISKS TO CONSIDER WHEN INSTALLING MULCH

- Some mulch may develop a waxy surface over time, which can repel water. Wetting Agents applied on top can alleviate this problem.
- Using compost or mulch created from green waste is a risk as it may be contaminated with weed seed (may produce weed cover), or plant pathogens (organisms that cause disease in plants). Check product has been either (i) treated at sustained high temperatures (ii) created from a clean product (iii) is produced in line with Australian Standard (2003) AS 4454 Composts, soil conditioners & mulches.

Apart from a very few plants that don't like mulch, mulching will encourage the garden to thrive and help conserve precious water.



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