

Mulch and your garden

What is mulch?

Mulch is any material that is spread over garden soil to act as a protective cover. It is a fantastic water saver.

Why mulch?

There are many benefits of mulch. Mulching your garden:

- ◆ saves water—mulch protects the soil from the drying effects of sun and wind
- ◆ improves plant growth—it stabilises soil temperature, eliminating extremes of heat and cold
- ◆ reduces weeds—mulch can kill existing low weeds by preventing light from reaching them. Weed seeds that do germinate are easy to pull out
- ◆ improves soil structure—good soil is the foundation of a good garden. Worms and other soil organisms feed on organic mulch and improve soil fertility and drainage.

Types of mulch

Choosing the right type of mulch depends on your needs. There are two main types of mulch: organic and inorganic.

Organic mulch

Organic mulches are dried or composted plant materials. This type of mulch breaks down over time, adding to the soil's organic content. It also improves the soil's ability to store water, increases soil fertility, and encourages earthworm activity.

Organic mulches include:

- ◆ straw—straw-like materials including lucerne, pea straw and sugarcane mulch decay quickly and suit most plants. The straw material can mat together and is excellent for use on slopes and annual garden beds
- ◆ bark—barks come in a range of sizes and types. Chunkier barks are better at allowing water into the soil. Barks can also bind together for use on slopes
- ◆ grass—grass clippings can be used for mulch. Mix the clippings with coarse material such as twigs to avoid them forming a waterproof layer when they are tightly packed together. Lawn clippings are even more useful if they are left on the lawn as mulch



- ◆ woodchips—compared with other organic mulches, these decay more slowly and provide fewer nutrients. They can deplete garden soils of nitrogen, so you will need to add some nitrogen-rich fertiliser.

Maintenance of organic mulch

- ◆ Always apply mulch over moist soil and wet the laid mulch to settle it in.
- ◆ Avoid placing mulch in contact with plant stems, where it can encourage disease.
- ◆ Fine mulch needs to be replenished more frequently and should be raked every two months to avoid compaction.
- ◆ Slow the breakdown of organic mulch by placing newspaper on the ground under the mulch.
- ◆ Beware of termite activity in wood-based mulches. Do not place wood chips in contact with your house.

- ◆ Be aware that some light mulches such as straw may blow away in windy conditions, while heavier mulches may be unstable on sloping land.
- ◆ It is best to apply organic matter when it is old or rotted. Fresh or green mulches can burn leaves or take nitrogen from the soil. Always pile up fresh material for a few months before spreading it.
- ◆ Apply mulch twice a year, preferably in autumn and spring.

Inorganic mulch

Inorganic mulches are made of inert or manufactured material such as rock, gravel or plastic. They generally require less maintenance than organic mulch, so can be suitable for time-poor gardeners. While they do reduce water loss and suppress weeds, they cannot contribute to the health and fertility of the soil.

Inorganic mulches include:

- ◆ stone—stone, pebbles, gravel and rock can be used for colour, texture and stability. They do not break down in the soil



- ◆ geotextile—this blanket-like synthetic fibre provides weed control and allows water penetration. It is almost always used in conjunction with a cover mulch such as bark chips.

Maintenance of inorganic mulch

- ◆ Using pebbles in a mix of sizes can help to stop the pebbles from shifting and causing depressions, and therefore prevent weeds from colonising.
- ◆ Light-coloured rocks can reflect light back onto the underside of the plant leaves, causing damage to heat-sensitive species.

Tip: If you are using good mulch, the surface and most of the mulch should be dry two hours after watering. The soil, where the plant roots are, should be wet to at least 10 centimetres deep. If the mulch is still wet and most of the soil is dry, the mulch is less likely to save water.

How do I apply mulch?

1. Prepare the soil by removing weeds, raking or digging the surface, and watering the remaining plants.
2. Place a layer of newspaper over the soil to further deter weed growth. Do not make this too thick, as it will reduce air supply to the soil.
3. Apply the mulch.
 - » The ideal depth depends on the particle size of the mulch material. If using large chunks, such as pine bark, you will need a deeper layer (more than 5 centimetres). Fine particles such as sawdust are more prone to compaction, so don't put them on as thickly.
 - » Leave a space of about 6 to 7 centimetres around plant stems; otherwise they may rot.
 - » As organic mulch decomposes, it can draw nitrogen from the soil. Watch your plants for signs of nitrogen deficiency (usually some yellowing of the lower leaves), and use a nitrogen-rich fertiliser if needed.

Tip: If spread too thickly, mulch can reduce the soil's aeration. To avoid suffocating your plants, use a thinner layer.

More information

Other water-efficient gardening guides are available on the Department of Environment and Resource Management website <www.derm.qld.gov.au>.