

## ► **Mulching & Weeding**

Surface weeds and grass will quickly exploit additional nutrients in fresh compost and the extra soil moisture your watering creates. It is advisable that weeds and grass are removed regularly to prevent them from competing with your trees for water and nutrients. Weed growth will also make assessing the soil moisture very difficult if it cannot be seen. Weeds can also harbour many pests and diseases which can transfer back and forth onto trees, causing potential issues.

Whilst by no means a necessity, mulching can be a multi-benefit practise to increase the health of newly planted trees providing a suitable material is used and it is carried out using the correct technique.

### **Mulching can:**

- **Suppress weed growth around trees.**
- **Retain moisture by preventing evaporation.**
- **Provide surface feeder roots with additional nutrition.**
- **Increase soil flora/fauna levels.**
- **Appear aesthetically pleasing.**
- **Reduce environmental stress on the soil and provide trees with a stable root environment that is cooler during hot conditions than the surrounding soil.**
- **Be a good incentive for the prevention of mechanical damage to trees by keeping machines such as lawn-mowers and strimmers away from the tree's base. (*Note: this type of mechanical damage is very common and can be fatal to your trees if the bark and cambium layer is damaged to a significant extent around the circumference of the tree.*)**

If you have decided that you would like to mulch your tree(s), the media must be applied onto a pre weeded, de-compacted and watered soil surface. The mulch layer must be no deeper than 10cm thick, ideally 5-7cm.

Thicker mulch layers, 15-20cm or greater, **may inhibit gas exchange** in heavier soils and far too often comes in contact with the trunk which, if left untreated, can often lead to failure.

The composition could be a variety of substrates such as: loosely packed, disease free leaf mould, pine straw, peat moss, or (disease free or sterilised) wood chip, providing these are partially decomposed and a suitable nitrogen-based supplement has been added to them. Naturally, wood requires nitrogen from the soil to decompose, which it steals off any plants growing in the area. To offset this a 50:50 mix of partially rotten wood chip and a nitrogen rich media, such as composted green waste, is an ideal mulch.

Ideally, mulch should be placed over the entire root area of the tree, which may be as far as two to three times the diameter of the branch spread of the tree, once it is fully established. A good guide to begin with is to have

the mulch ring at the same circumference as the dripline of the tree (this refers to an area on the ground beneath the canopy that would be in shadow if a light was to be shone from directly above the tree). The mulch ring can always be increased as the tree increases in size in future years.

If the area or activities occurring around the tree do not permit the entire area to be mulched (as is often the case), simply mulch as much of the area under the canopy of the tree as is practical.

It is **CRITICAL** that when placing mulch upon the root zone of the tree, care must be taken that **at no point does mulch ever come into contact with the trunk of the tree**. A depth increase as little as 2cm touching the trunk is enough to cause a tree to fail. Bark on roots, below ground is different to the bark on stems and branches. The bark on roots is specialised to deal with the transfer of moisture, nutrients and gases.

However, at the point where roots are connected to the trunk (root collar, root flare or buttress) a change occurs. If the root collar or above remains moist for a prolonged period of time it will cause decay. This is known as **collar rot**. Collar rot can occur in as little as 6 months after planting, but also take as much as 5-10 years after planting depending on soil type, moisture level and species of tree.

A **mulch-free ring** around the base of the trunk 10cm in radius, is sufficient to avoid moist bark conditions and prevent trunk decay.

If mulching is not an option, or third parties are caring for the landscape around your trees, we recommend installing strimmer guards around all trees as protection. These are available at some garden centres or through Majestic Trees.



**Be careful to never install more than 5-7cm of mulch and even then, resist putting it around the trunk of the tree to reduce the likelihood of collar rot.**

## ► Plastic and Geotextile Membranes

Plastic or any geotextile membrane should never be placed around a tree's root system because it interferes with the exchange of gases between the soil and the air, inhibiting root growth. Regardless of how 'porous' the membrane has been marketed as being, when in contact with a moist soil and topped with an additional substrate, soil particles migrate upwards, filling the pore spaces in the membrane, creating a layer impervious to water and oxygen. This can result in collar rot or root suffocation and subsequent failure of the tree.