

Mulching in Moderation

By Peter Saunders

Mulching is one of the most beneficial ways to keep trees healthy. It makes growing situations more 'friendly' for trees in general. However, over-mulching can be one of the worst landscaping mistakes, causing significant damage to trees and other plants around them.

"All things in moderation' should be the mulching motto," says Jim Skiera, executive director of the International Society of Arboriculture (ISA). "As beneficial as mulch is, too much can be harmful, in more ways than one."

According to ISA, the generally recommended mulching depth is 51 to 102 mm (2 to 4 in.). When applied properly, mulch helps maintain soil moisture, control weeds, improve soil structure, inhibit certain plant diseases and give planting beds a uniform, well-cared-for look. It also protects plants and trees from weed whacker damage and lawnmower blight.

Too much mulch, whether in deep layers or piled high against tree trunks, can cause major problems, including the following:

- Excess moisture in the rootzone, which causes plant stress and root rot.
- Insect and disease problems.
- Micronutrient deficiency or toxicity.

To ensure the health of trees and plants, the following are some other practical mulching tips to ensure the health of trees and other plants:

- Apply the recommended 51 to 102 mm (2 to 4 in.) of mulch in well-drained sites, but where drainage problems occur, use a thinner layer instead.
- If mulch is already present, check its depth. Do not add more if there is already a sufficient layer in place. Instead, rake the old mulch to break up any matted layers and refresh the appearance.
- Avoid placing mulch against tree trunks. If mulch is already piled there, pull it back several inches, so the base of the trunk and the root crown are exposed.
- Mulch out to—or beyond, if possible—the tree's drip line.
- While the most common mulches work well in most landscapes, be mindful some plants may benefit from a slightly 'acidifying' mulch, such as pine bark.
- Organic mulches are preferable for their soil-enhancing properties. Be sure they are well-aerated and -composted to avoid a sour smell.
- Avoid using uncomposted wood chips that have been piled deeply without exposure to oxygen. Use composted wood chips instead, especially when they contain a blend of leaves, bark and wood.

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- Weed growth.
- Smelly planting beds, caused by anaerobic (*i.e.* oxygen-free) conditions and 'sour' mulch.
- Habitat creation for rodents that chew and girdle trees (*i.e.* remove a ring of bark, killing the tree).

These problems do not negate the importance of mulching. Urban landscapes are typically harsh environments with poor soil conditions, little organic matter and significant fluctuations in temperature and moisture—all of which are 'unfriendly' growing situations for trees. A suitable layer of organic mulch can mimic a more natural environment and improve overall plant health.

When mulching, Skiera says it is important to remember the root system of a tree is not a mirror image of its top.

"The roots of most trees extend out a significant distance from the trunk," he says. "Also, most of the fine absorbing roots of trees are located within inches of the soil surface."

He adds these shallow roots, which are essential for taking up water and minerals for trees, require oxygen to survive. A thin layer of mulch, applied broadly and practically, can improve the soil structure, oxygen levels, temperature and moisture availability where these roots grow.