

## **Mulching Trees**

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In the forest trees have abundant organic matter to help provide nutrients to keep the tree healthy during times of stress and drought. The litter layer has insects and organisms breaking the organic matter to make available for all trees and plants. However, the urban forest has compacted soils, intense heat, and other stresses that impact trees. Mulching is a good way to keep plants healthy and to reduce landscape maintenance if done properly. When trees are mulched there is 10-25 percent reduction in soil moisture loss from evaporation. Also, mulches reduce soil compaction which in turn helps keep soil well aerated. Some other benefits of mulching are it reduces water run off and soil erosion, prevent soil and possible fungi from splashing on the foliage, helps maintain a more uniform soil temperature, promotes the growth of soil microorganisms and earth worms, helps reduce weeds, and mulch can give a uniform, well cared look.

The main types of mulch are inorganic and organic. Inorganic mulches include different types of stone, rock, rubber, and fabrics. Inorganic mulches do not decompose. They do not improve soil structure, add organic materials, or provide nutrients. Most arborists prefer organic mulches to inorganic mulches.

Organic mulches include wood chips, pine needles, bark, leaves, and many other products that come from plants. Organic mulches decompose at different rates depending on the material. The faster mulch decomposes, the more often it must be replenished. Organic mulch requires more maintenance; however, it improves soil quality and fertility, which arborists and other landscape professionals consider a positive characteristic.

Just because mulch is good, too much mulch can be harmful to a plant. A recommendation amount is 2-4 inches deep. Too deep of mulch can lead to excess moisture in the root zone, causing root tip rot, Piling mulch to high and against the trunks of trees can stress stems and can lead to insect and disease problems. A thick layer of mulch can prevent the penetrations of water and air to the plant.

Here are some guidelines to proper mulching. A thin wide layer of mulch should be used instead of thin thick layer. Place mulch out to the tree's drip line or beyond. The drip line is out edge of the branches. This prevents lawn mower or weed trimmer damage to fragile trunks of trees. The mulched area should include the most of the root zone as possible. If the area that you are mulching seems to have a drainage problem, make the layer of mulch thinner. Make sure the mulch is at least 6 inches from the trunk and root crown. Mulch can be applied any time of the year. The best time to mulch is late spring after the soil has warmed. Mulch older than 4 years becomes hydroscopic which causes water to runoff and not be available to the tree. It is recommended to remove old mulch and replace with no mulch every 4-5 years.

