



Ray Smith & Associates, Inc.

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- Tree Care
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Mulching: How & Why

Benefits of Proper Mulching

Trees love mulch rings. Mulches are materials placed over the soil surface to maintain moisture and improve soil conditions. Mulching is one of the most beneficial things a home owner can do for the health of a tree. Trees growing in a natural forest environment have their roots anchored in a rich, well-aerated soil full of essential nutrients. The soil is blanketed by leaves and organic materials that replenish nutrients and provide an optimal environment for root growth and mineral uptake. Urban landscapes, however, are typically a much harsher environment with poor soils, little organic matter, and large fluctuations in temperature and moisture.

Home owners and professional arborists depend on mulch in landscapes for several reasons. Functionally, mulches discourage weeds from growing, conserve moisture during drought periods, and allow better use of water by controlling runoff and increasing water-holding capacity of light, sandy soils. Mulches help maintain a uniform soil temperature. Mulch serves as nature's insulating blanket. Mulch keeps soils warmer in the winter and cooler in the summer. A 3- to 4-inch layer of mulch can add to the aesthetic value of a garden while protecting the base of trees from being injured by equipment, such as lawn mowers. Mulch rings also decrease competition from lawn grass. Lawn grass, especially when lush, robs trees of valuable nutrients and moisture. Properly applied, mulch can give landscapes a handsome, well-groomed appearance. Mulching around trees helps facilitate maintenance and can reduce the likelihood of damage from "weed whackers" or the dreaded "lawn mower blight."

Mulches are available commercially in many forms. The two major types of mulch are inorganic and organic. Inorganic mulches do not improve soil structure, add organic materials, or provide nutrients. Organic mulches include wood chips, pine needles, hardwood and softwood bark, cocoa hulls, leaves, compost mixes. Organic mulches decompose in the landscape at different rates depending on the material and climate and must be replenished more often.

Most arborists consider organic mulches as the most compatible with trees. There are, however, several inorganic materials used as mulches. There are, however, several landscape fabric "mulches" available that will allow for normal water and oxygen exchange. These materials, sometimes called geotextiles or weed barriers, are placed on bare soil around trees and shrubs with mulches

used on top. There are many brands and types of materials from which to choose. They have proven to be beneficial in discouraging weeds and conserving soil moisture.

Problems Associated with Improper Mulching

As beneficial as mulch is, too much can be harmful. The generally recommended mulching depth is 2 to 4 inches and should not cover the bark of the tree trunk. Unfortunately, many landscapes are falling victim to a plague of over mulching. Deep mulch can lead to excess moisture in the root zone, which can stress the plant and cause root rot. Mulch piled high against the trunks of young trees may create habitats for rodents that chew the bark and can girdle the trees. A new term, “mulch volcanoes,” has emerged to describe mulch that has been piled up around the base of trees. Most organic mulches must be replenished, but the rate of decomposition varies. Top dressing with new mulch too often (often for the sake of refreshing the color) creates a buildup to depths that can be unhealthy.



“Mulch volcanoes” cause many problems for trees.



Mulch wide—not deep.