

Benefits of Mulch

Why Urban Trees Need Mulch

Trees and grass growing together compete for moisture and nutrients. Mulch in place of grass under trees eliminates this competition and creates a more favorable environment for the tree. Mulch can be used under trees that cast heavy shade, where growing turf is difficult. By mulching under trees, you can reduce the need for mowing and prevent tree injury caused by weed whips and lawn mowers. Decomposition of organic mulch into humus is very beneficial to the health of tree roots and soil.

Types of Mulch

Mulch is any material applied at the soil surface to prevent loss of water by evaporation, suppress weed growth, moderate temperature fluctuations, or promote soil fertility.

A range of organic materials are typically used for mulch in landscapes: wood chips, bark, leaves, lawn clippings, conifer needles, hay, straw, etc. Other materials such as crushed limestone or river rock are used as mulch, but these do not provide the same benefits that organic mulches offer.

How to Apply Mulch

Organic materials offer the greatest benefit to the tree and its surrounding soil environment. Chipped or shredded hardwood is commonly available for use in landscape settings. Use of rock as mulch is not advised due to a number of drawbacks: rock mulch can compact the soil, can heat up to high temperatures in the sun, and in some cases can increase the pH of the soil.

Prepare the area by removing weeds and grass. This can be accomplished by use of close mowing, hand pulling, herbicide application, or suppression with layers of newspaper or cardboard. Do not use plastic or fabric liner under mulch materials. These materials cut off the necessary oxygen supply to the root zone of trees.

Do not apply mulch to a depth greater than 3 to 4". Keep the mulch free from contact with the trunk. Mulch heaped against a tree trunk (a "mulch volcano") can be harmful to the health of the tree.

Mulch needs to be replenished periodically as organic matter decays. Add just enough to bring the depth of mulch back to a 3 to 4" depth.



photo: Dr. Gary Watson

Studies have shown that tree roots have five times the density under mulched areas in comparison to areas with grass competition



Properly mulched tree; mulch applied 3-4" deep, spread out under the tree with no plastic or fabric liner underneath



Do not create a "mulch volcano"; keep the trunk free of contact with mulch. Spread the material out, don't mound it up.