

## MULCH INSTALLATION AND RENOVATION

Mulch, as a protective and ornamental feature among herbaceous and woody plants, has gained wide popularity in contemporary landscapes.

**BENEFITS:** Mulches promote root growth and plant survival in a number of ways.

- Mulch materials allow for the exchange of gases between the atmosphere and soil (oxygen into soil, carbon dioxide out).
- Mulches help provide for better water penetration into soil.
- Mulches reduce evaporation of soil water, conserving soil moisture for optimal root development.

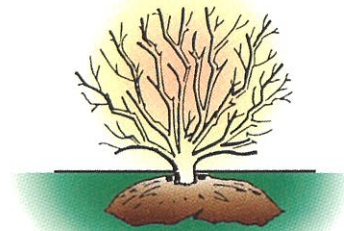
The insulating effect of mulch is an important feature because it moderates extremes of soil temperature. Mulched soil does not get as cold in the winter or as hot in the summer as unmulched soil. This is important because the root systems of most plants are not effective in taking up water and elements at unusually low or high temperatures. Also, mulches cause soil temperatures to lag behind air temperatures. Thus, soil cools slowly in fall (allowing a longer period of high root activity) and warms slowly in spring.

Mulches are also useful in suppressing weeds that compete with desirable plants for moisture and nutrients. However, they will not totally eliminate weeds. Maximum weed control can be achieved with the use of pre-emergent herbicides and/or landscape fabric (not sheet plastic) before applying mulch.

Mulch makes a layer of well-aerated soil near the surface available for long periods of almost continuous root activity. This layer is normally unavailable because of reoccurring periods of extreme dryness and fluctuating temperatures.

**EVALUATION & PROCEDURE:** Two common mistakes in mulch distribution are applying material too thickly or deeply and mounding up mulch on plant stems. Effects of too much mulch in planting areas include excessive moisture, reduced oxygen and fungal growth. Decay fungi are also promoted when mulch is piled on stems. Just outside of the stem, mulch dressing should be no more than ½ inch deep.

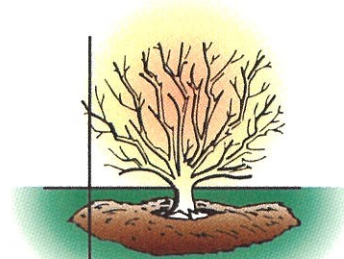
Most mulches need only be applied and maintained at 2- to 4-inch depths at the plants' dripline, ranging from 2 inches on heavy clay



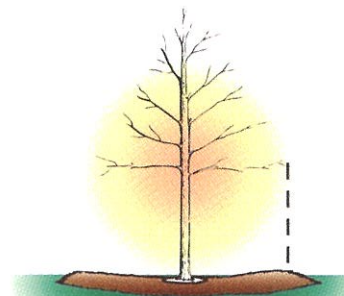
*This shrub has outgrown its original mulch bed, and the mulch is piled up around the stem. Mulch should be no more than ½ inch deep just outside the stem.*



*Clear excess mulch from the stem area.*



*This shows the drip line.*



*Extend mulch to the drip line.*

soils to 4 inches on sandy soils. One to 2 inches of mulch in maintained beds can be added every two to three years as original mulch decomposes.

As woody plants develop over subsequent growing seasons, mulch under the crowns can be annually raked out to the expanding drip lines. Use of this mulch management technique achieves several objectives. Mulch is brought out from under plants, stirred, fluffed, exposed to air and light, and arranged to continue to provide soil protection. At this time, the mulch can be evaluated for any redressing needs or removal. Waterlogged or compressed mulch material can be stirred, turned over, or broken up, if necessary, to improve aeration and water diffusion capability.