Proper Mulching Techniques

Mulching is one of the most beneficial practices a homeowner can use for better tree health.

Mulches are materials placed over the soil surface to maintain moisture and improve soil conditions. Mulching is one of the most beneficial acts a homeowner can do for the health of a tree. However, improper mulching materials and practices may have little, or even negative, impact on the trees in your landscape.

Benefits of Proper Mulching

- Helps reduce soil moisture loss through evaporation
- Helps control weed germination and growth
- Insulates soil, protecting roots from extreme summer and winter temperatures
- Can improve soil biology, aeration, structure (aggregation of soil particles), and drainage over time
- Can improve soil fertility as certain mulch types decompose
- Inhibits certain plant diseases
- Reduces the likelihood of tree damage from “weed whackers” or the dreaded “lawn mower blight”
- Gives planting beds a uniform, well-cared-for look

Trees growing in a natural forest environment have their roots anchored in a rich, well-aerated soil full of essential nutrients and soil microorganisms. The soil is blanketed by leaves, organic materials, and living organisms that replenish and recycle nutrients. This environment is optimal for root growth and mineral uptake. Urban landscapes and new developments, however, are typically harsher environments with poor quality soils, reduced organic matter, and large fluctuations in soil temperature and moisture. Applying a 2- to 4-inch (5- to 10-cm) layer of organic mulch can mimic a more natural environment and improve plant health.

Types of Mulch

Mulches are available in many forms. The two major types of mulch are inorganic and organic. Inorganic mulches include various types of stone, lava rock, pulverized rubber, geotextile fabrics, and other materials. Inorganic mulches do not decompose and do not need to be replenished often. On the other hand, they do not improve soil structure, add organic materials, or provide nutrients. For these reasons, most horticulturists and arborists prefer organic mulches.

Organic mulches include wood chips, pine needles, hardwood and softwood bark, cocoa hulls, leaves, compost mixes, and a variety of other products usually derived from plants. Organic mulches decompose in the landscape at different rates depending on the material, climate, and soil microorganisms present. Those that decompose faster must be replenished more often. Because the decomposition process improves soil quality and fertility, many arborists and other landscape professionals consider that characteristic a positive one, despite the added maintenance.

Not Too Much!

As beneficial as mulch is, too much can be harmful. The generally recommended mulching depth is 2 to 4 inches (5 to 10 cm). Unfortunately, many landscapes are falling victim to a plague of overmulching. “Mulch volcanoes” are excessive piles of mulch materials applied around the base of trees. While organic mulches must be replenished over time, buildup can occur if reapplication outpaces decomposition or if new material is added simply to refresh color. Deep mulch can be effective in suppressing weeds and reducing maintenance, but it often causes additional problems.

Problems Associated with Improper Mulching

- Or wet soils, deep mulch can lead to excess moisture in the root zone, which can stress the plant and cause root rot.
- Piling mulch against the trunk or stems of plants can stress stem tissues and may lead to the development of insect and disease problems or stem girdling roots.
Chips decompose faster than mulches, and under the summer sun, composted wood chips' soil nutrition may be taken up by the roots of the tree.

1. Mulch is placed around the stems of young trees, and in back several inches to encourage so.
   - Mulch is placed around the stems of young trees, and in back several inches to encourage.
   - Mulch is placed around the stems of young trees, and in back several inches to encourage.
   - Mulch is placed around the stems of young trees, and in back several inches to encourage.
   - Mulch is placed around the stems of young trees, and in back several inches to encourage.

2. If mulch is ready to be removed, the stems of young trees, and in back several inches to encourage.
   - If mulch is ready to be removed, the stems of young trees, and in back several inches to encourage.
   - If mulch is ready to be removed, the stems of young trees, and in back several inches to encourage.
   - If mulch is ready to be removed, the stems of young trees, and in back several inches to encourage.
   - If mulch is ready to be removed, the stems of young trees, and in back several inches to encourage.

3. Compost is a good fertilizer, and under the summer sun, composted wood chips' soil nutrition may be taken up by the roots of the tree.

4. Some mulch-filled areas include:
   - Some mulch-filled areas include:
   - Some mulch-filled areas include:
   - Some mulch-filled areas include:
   - Some mulch-filled areas include:

5. The choice of mulch and the amount of application can be important in the health of the landscape plants. The following are some guidelines for choosing:

   - Good advice for choosing:
   - Good advice for choosing:
   - Good advice for choosing:
   - Good advice for choosing:
   - Good advice for choosing: