Sustainable Landscaping – Proper Mulching Techniques

Last month, I covered the topic of tree watering. When landscaping is properly mulched, the rooting zone will remain moist for a longer period, requiring less frequent watering. Mulching is one of cheapest and most beneficial practices a homeowner can do for their trees and shrubs. However, improper mulching materials and practices can have negative impacts on trees in your landscape.

Mulch comes in many different forms, but the two primary types are inorganic and organic. Examples of inorganic mulches are lava rock, stone, pulverized recycled rubber, geotextile fabric, and other inorganic materials. Inorganic mulch does not improve the soil since it does not decompose. Organic mulches do decompose, and materials such as wood chips, bark, pine needles, leaves, compost mixes, and other mulches derived from plant material are good examples.

Benefits of Proper Mulching

- Reduces soil moisture loss due to evaporation
- Insulates soil, protecting roots from extreme summer and winter temperatures
- Reduces weed germination and growth
- Can improve soil biology, aeration, structure, and drainage over time
- May improve soil fertility as certain types of mulch decompose
- Reduces the likelihood of tree damage from lawn equipment
- Provides a uniform look to planting beds

Improper Mulching and Associated Problems

Mulch is beneficial, but mulching deeper than 2-4 inches can be harmful. Many landscapes are falling victim to creating "mulch volcanoes," which I am sure everyone has seen in our community. A mulch "volcano" is created when mulch is continually mounded around the base of trees. It is important to replace mulch over time, but it is also important to never allow the reapplication rate to outpace the decomposition rate.

"Volcano mulching." Daily Herald

Proper Mulching

With proper mulching techniques we should attempt to simulate conditions found in a natural forest, where the soil is covered by leaves, downed trees, twigs, organic materials, and many living organisms that recycle these nutrients. This is the optimal environment for root growth and

mineral uptake. Most urban landscapes are typically harsher environments with poor quality soils, reduced organic matter, and large fluctuations in soil temperature and moisture. See the list below for proper mulching recommendations:

- Commonly available double-shredded hardwood mulch works well in most landscapes.
- For most sites, apply a 2-inch layer of mulch. Coarse mulches such as large wood chips may be applied deeper (3-4 inches) without harm. Fine wood chips (playground type) should be avoided. Remember to mulch out and not up. Place mulch out to the edge of a tree's dripline or beyond. The larger the mulched area the better.
- If old mulch is still present, check the depth and break up the old layer with a rake. If the depth is less than 1-2 inches, consider adding to maintain, but not exceed the proper depth.
- Never pile mulch against the trunk of trees or shrubs. Keep mulch back several inches so the root flare is exposed, to simulate trees in a natural forest setting.

Properly mulched tree and planting bed. Nick Drunasky

Properly mulched mature tree and planting bed. Nick Drunasky