## RESEARCH LABORATORY TECHNICAL REPORT



## **Mulch Application Guidelines**

## Drew C. Zwart, PhD, Plant Physiology

Mulches provide many benefits for trees and shrubs. Properly applied mulch will moderate soil temperatures, reduce soil moisture loss, reduce soil compaction, provide nutrients, improve soil structure, foster beneficial microbial communities, and keep mowers and string trimmers away from the trunk. These benefits result in more root growth and healthier plants. When applying mulch, the following guidelines should be observed:

- The best mulch materials are fresh woodchips, bark nuggets, composted leaves or pine needles. Plastic, stone, sawdust, finely shredded bark, and grass clippings should be avoided. Do not use fresh woodchips from redwood or walnut due to potential allelopathic effects.
- 2. Mulch should be applied from near the trunk to the dripline (Figure 1). If this is not practical, minimum mulch circle radii should be 3 feet for small trees, 8 feet for medium trees and 12 feet for large trees.
- 3. When applying mulch, it is not necessary to kill or remove existing ground cover. However, turf
- Figure 1: Mulch should be applied from the trunk to the dripline.



- should be mowed very short and clippings removed prior to application. Mulch should be applied directly to the soil surface. Do not use landscape fabric to separate the mulch from the soil.
- 4. The mulch layer should be 2-4 inches depending on tree species and mulch (Figure 2).

Figure 2: Mulch layer should be 2-4 inches thick and not be against the trunk.



- 5. Mulch will slowly decompose, and additional mulch should be added to maintain a 2 to 4-inch depth.
- Mulch should not be placed against the trunk because it will retain too much moisture against the trunk, potentially resulting in disease or decay problems.



Founded in 1926, The Bartlett Tree Research Laboratories is the research wing of Bartlett Tree Experts. Scientists here develop guidelines for all of the Company's services.