



Soil Test Note: 20

Home Shrubs and Trees

(Supplement to Soil Test Report)

*Authored by Bonnie L. Appleton, Extension Horticulturist, and
S.E. Heckendorn, Soil Testing Laboratory Manager,
and reviewed by Laurie J. Fox, Research Associate, Hampton Roads Agricultural Research and
Extension Center, Virginia Tech*

Introduction

Fertilization is not recommended for healthy shrubs and trees with good, generally green color (some cultivars have red, purple, or variegated colored leaves). The roots of shrubs and trees normally extend one to three times the height of the plant beyond the drip line or canopy edge of the plant. (The canopy is the shaded area directly under a plant at noon.) If the plants are in or adjacent to a fertilized lawn, the shrubs and trees will absorb some of the lawn fertilizer and generally will need no other supplement. If the plants are mulched with an organic material, they may need no supplements because they can absorb nutrients from the decomposing mulch. Applying unneeded fertilizer wastes money, can lead to water pollution, and can cause excessive growth that can be detrimental to the plants and increase maintenance of the plants..

If the leaves become paler and smaller than normal, if plant growth looks stunted or deformed, or if the number of buds seems reduced, fertilization may be beneficial. The greatest uptake of fertilizer will be between bud break in the spring and mid-summer. Do not to apply fertilizer late in the summer or in the fall since tender, late-season growth may be damaged during the winter. Sweep or blow any fertilizer that falls on driveways, sidewalks, or other hard surfaces back into the landscape to prevent it from washing into storm drains and polluting waterways.

Fertilizing Tips

- Use a controlled release (sometimes called slow release) fertilizer - one containing at least 50% WIN – water insoluble nitrogen. This means that the nutrients are released slowly over time (usually 3-4 months), which is better for plant establishment and growth and reduces potential pollution.

- Add fertilizer to the planting hole or incorporate it into the planting bed if possible so fertilizer is readily accessible by the plant roots.
- If broadcasting fertilizer on the surface of the ground, then cover it with mulch so the granules aren't degraded by the sun or eaten by wildlife.
- If fertilizing established shrubs and trees, then spread the fertilizer evenly over an area twice the size of the plant's canopy as most of the smaller roots grow beyond the dripline. For example, if the canopy of a tree covers 50 square feet, fertilize a 100-square-foot area under and around the tree. If that is not possible, then spread the fertilizer evenly under as much of the canopy as possible.
- Do not place fertilizer in direct contact with tree or shrub stems.
- Follow the recommended rate to use printed on the fertilizer label.
- If shrub or tree roots extend into the turf, never apply more than 1.5 pounds of actual nitrogen per 1,000 square feet at any one time to avoid injuring the turf.

Soil test recommendations are made in pounds of individual nutrients not pounds of fertilizer. There are numerous apps and websites available to assist with calculating area and amount of fertilizer (depends on which product is being used) to apply.

Additional Information

Virginia Cooperative Extension publications
Fertilizing Landscape Trees and Shrubs 430-018

Fertilización de árboles y arbustos 430-018s (HORT-165P)

Available at www.ext.vt.edu or from your local Virginia Cooperative Extension office.

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