



## Trees and Shrubs Need Nutrients Too

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Most gardeners and lawn owners realize the importance of providing necessary nutrients to our vegetables, flowers and lawns but often the nutrient requirements of trees and shrubs are overlooked. Native trees and shrub species have, for the most part, adapted to our acidic, often nutrient poor soils. Non-native ornamentals, on the other hand, often benefit enormously from routine fertilizer applications.

If you are regularly spreading compost or other high nutrient organic materials under the dripline of your trees and shrubs, additional fertilizers may not be necessary. Soil test occasionally to see if nutrients are being over or under applied. Also, trees planted in lawns that receive regular fertilizer application may not need much additional fertilization. Plants growing in poor soils, those with poor vigor or previously affected by insect and disease problems, will generally respond well to fertilizer additions.

Use of a high nitrogen fertilizer is recommended for most trees and shrubs. Look for an analysis like 10-8-6, 10-6-4 or 8-6-2. If phosphorus and potassium are lacking in the soil, a fertilizer with the analysis of 10-10-10 can be used. Lower analysis organic fertilizers are often recommended for broad-leaved evergreens such as rhododendrons, azaleas and andromedas as well as blueberries. These plants have shallow root systems and may be injured if higher grade fertilizers are inadvertently over applied. These shrubs also benefit from a layer of organic mulch.

Individual specimen shrubs may be fertilized at the rate of one-quarter to 1 pound per plant depending on the size with the lesser amount, of course, being used for smaller plants. Groups of shrubs can receive 1 to 2 pounds of an inorganic fertilizer for every 100 square feet. Hedges are usually given 2 pounds of fertilizer per 100 square feet with one-half worked into the soil on each side. One cup of a fertilizer such as 10-6-4 weighs approximately one pound.

The rate of fertilizer application for trees is calculated from the area of the tree's canopy. Roughly estimate the amount of ground the tree's canopy (leaf area) covers. Where a tree has overgrown a driveway or some other impermeable structure, reduce the amount of

fertilizer applied in proportion to that area. Deciduous trees like maples, beech or flowering cherries would use from 1 to 2 pounds of a 10-6-4 per 100 square feet of canopy cover. Evergreen trees would require one half as much fertilizer as they are more efficient at recycling their nutrients.

The reason a range of application rates is suggested is due to plant maturity, size and performance. Larger applications of fertilizer will result in more growth which may or may not be desirable. If trees have reached sufficient size you may not want to stimulate vigorous growth. Also, flowering trees and shrubs are usually fertilized at the lower rate as too much nitrogen can stimulate leaf growth at the expense of flowers.



Mature and/or flowering trees are typically fertilized at a lower rate. Photo of redbud by D.Pettinelli

Granular fertilizers are generally broadcast over the area covered by the canopy plus a few feet beyond as the root systems of most healthy trees and shrubs extend beyond the spread of the branches. Try to evenly disperse the fertilizer over this area. Ideally it could be lightly scratched into the soil, watered, and then covered with bark mulch.

Trees and shrubs are generally fertilized in springtime after April 15<sup>th</sup> or in the fall (late September through mid-October). Avoid fertilizing from July through mid-September as new growth may be stimulated and may not have time to harden off before winter.

It is always a good idea to test your soil before applying fertilizer or limestone. The UConn Soil Nutrient Analysis Lab can give you information on soil testing. Call (860)486-4274 or visit their website: [www.soiltest.uconn.edu](http://www.soiltest.uconn.edu). Also, keep in mind that while proper fertilization can help plants grow and develop, it can not make up for poor cultural practices or poor site selection.

Whenever purchasing a new tree or shrub for your property, read up on site requirements and cultural requirements. Select one that meets both your landscape needs as well as the site conditions that it will be planted in.

If you have questions about fertilizing trees and shrubs, or on any other on other horticultural topics, contact the UConn Home & Garden Education at (877) 486-6271 or [www.ladybug.uconn.edu](http://www.ladybug.uconn.edu) or your local Cooperative Extension Center.