



UI Extension Forestry Information Series II

Tree Planting and Care No. 20

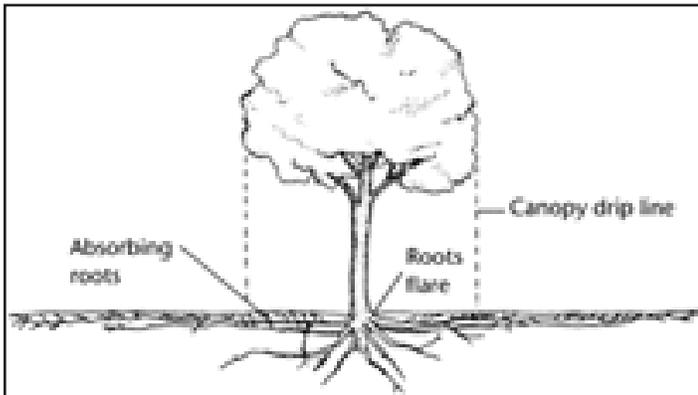
Caring for Your Trees

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You have trees and they need care. Here we address the most common concerns.

Deep watering

Just because you water your lawn does not mean you are watering your trees. Trees and woody shrubs have most of their root systems within the first 24-36" of soil profile and this is where most of the feeder roots are located. Roots grow two to three times as wide as the branches of a tree. Short, frequent watering usually does not penetrate much beyond the sod and organic matter layer of the soil profile.



Trees and woody shrubs will benefit from deep watering very 10 to 14 days during the hot, dry months summer and, if the season has been unusually dry, once again in the late fall.

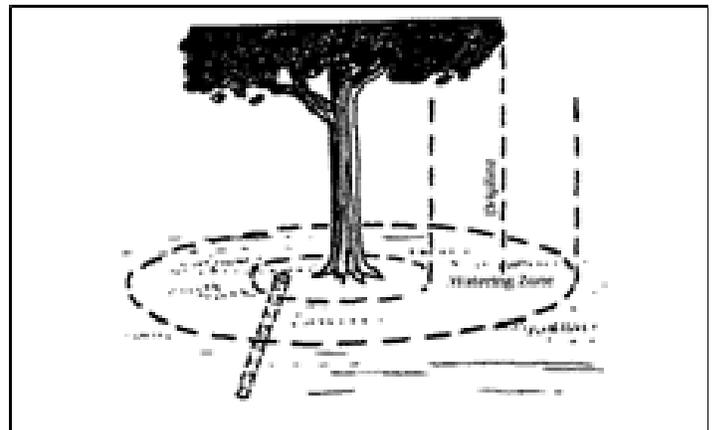
There are several methods of deep watering your trees, some more labor intensive than others.

The easiest way is to lay a garden hose at the base of a small tree or at a point along the drip line of a larger tree. Let the hose run slowly for at least four hours.

Move the hose around if necessary to ensure that all of the roots receive water. A drip irrigation system set up around the tree will work as well. Soak the soil to a depth of at least 12 inches.

To aid deep watering on sloping sites, and aerate for roots, consider the method shown above.

1. Drill 3 to 4 holes approximately 18 inches deep and 2 to 3 inches in diameter at an angle pointing outward from near the base of the tree.
2. Insert perforated plastic pipe and fill with medium-sized gravel.
3. Fill each pipe with water several times, or until the water does not penetrate the soil anymore.
4. This method will insure that the water you put on the ground will penetrate the minimum 12 inches necessary for good root zone moisture content.



Fertilization

Research has shown that trees do not really need to be fertilized in the first 3-5 years from planting. After that, your trees can benefit from regular fertilization.

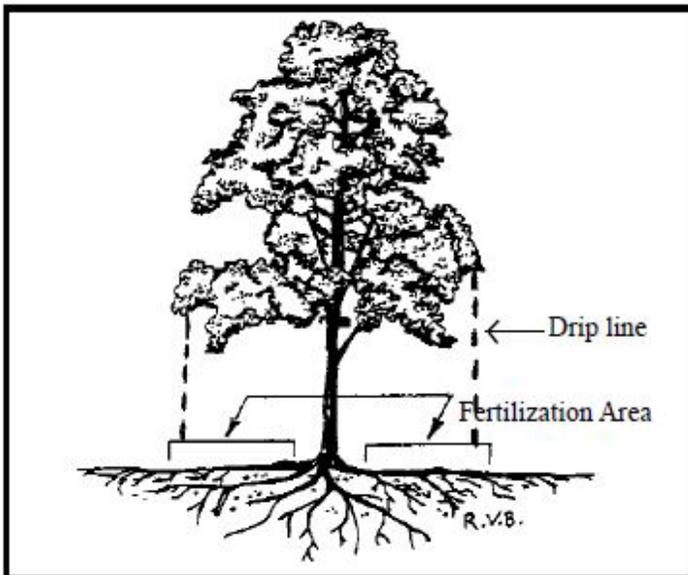
Trees and shrubs that may benefit from fertilization are usually showing some signs of stress – their flowers and leaves are not as large or as numerous as they should be; fruit is sparse or lacking; color is off; and general vigor is poor.

Selecting a fertilizer

Commercial fertilizers can be purchased as a liquid, a granule, or a spike. The contents are identified by a three number system: the first number is the % nitrogen (N); the second is % phosphorus (P); and the third is the % potassium (K) in the fertilizer.

A fertilizer with these three major plant nutrients, NPK, is called a complete fertilizer. A commonly used complete fertilizer for trees and shrubs has a ratio of 3:1:1.

“Fertilization area” and the total “root zone area” can be different. The root zone may be three times the radius of the drip line. The fertilization area is inside the drip line. This is the area of the highest root concentration.



Fertilizing methods

- **Surface Broadcast.** The easiest way to fertilize large trees surrounded with mulch or bare soil is to broadcast granular fertilizer on the surface of the soil and allow the rain to transport the nutrients to the roots. Broadcast the fertilizer on the area under the tree, beginning near the trunk to the drip line. Broadcasting on turf or sloped surfaces in watershed areas, should be avoided.
- **Liquid Injection.** Another popular method used by commercial arborists is injection of liquid fertilizers into the soil. This method is especially useful in turf areas or on slopes. There are similar devices with prepackaged water-soluble fertilizers that attach to the garden hose for homeowners. When using these, the tip of the injection needle should be inserted 8 to 10 inches into the soil, at 2-3 foot intervals, in the root zone of the tree. Follow the label instructions for correct application rates.
- **Compressed Spikes.** Compressed fertilizer spikes are another popular method used by many homeowners. These are driven into the soil with a hammer. They can only be used effectively when the soil is soft and moist. Follow the instructions on the product label for the correct spacing and number of spikes to use.

Soil nutrient testing is available through most land-grant universities, as well as with kits you can purchase at most landscape supply outlets. But recommended rates for particular species of trees and shrubs is sadly lacking, so it is hard to correlate the results of most nutrient tests to what you actually have going on in your particular situation.

Even though you may hear that fall fertilization can be beneficial to plants, we recommended that Idaho landowners fertilize only in the spring. Trees and woody shrubs start their dormancy process sometimes as early as the middle weeks of July. Fertilizing can interfere with this process, resulting in trees going into the winter months that are not fully dormant and have greater risk for winter damage and death.