



## LOUISIANA DEPARTMENT OF AGRICULTURE & FORESTRY

MIKE STRAIN DVM, COMMISSIONER

OFFICE OF FORESTRY

P.O. Box 1628

BATON ROUGE, LA 70821-1628

(225) 925-4500 FAX: (225) 922-1356

[www.ldaf.state.la.us](http://www.ldaf.state.la.us)

# GUIDELINES FOR FERTILIZING YARD TREES

## Note No. 1

Trees growing in an urban environment suffer unnatural stresses because they do not have the benefit of natural forest conditions. Thus, they require supplemental feeding and care for health and longer life.

Fertilization of well established trees helps maintain good health and aids in healing wounds and recovery from ill effects of soil compaction, root damage, drought stress and nutrient depletion of the soil.

The growth rate of newly established trees can be vastly increased by timely application of fertilizer, if proper procedures are followed.

## WHEN TO FERTILIZE

Fertilization can be beneficial almost anytime of year but early spring (mid February through March) seems to be the best time for Louisiana trees. For maximum growth of young trees and for treatment of stress problems in older trees, a yearly application recommended.

Trees suffering from root damage may decline unless you help them rebuild their root systems, which will possibly require special applications of a low nitrogen fertilizer or root stimulant in autumn. However, it may be advisable to call in a professional arborists, forester or county agent for guidance in this particular task.

For mature, normally healthy trees a maintenance application every second or third year will suffice. **Do not apply DRY fertilizer to the soil of newly transplanted trees for at least one year, because roots are very susceptible to fertilizer burn until they become well established.**

Instead, for new transplant use a water soluble fertilizer such as that commonly used for house plants to initiate rapid growth. There are many of these systemic fertilizer on the market. Just follow label directions and treat the young tree as if it were a large house plant. This usually involved mixing water with the fertilizer concentrate and spraying it on the foliage as well as allowing it to soak into the soil around the tree. Applications at four -to- six week intervals during the growing season can greatly increase initial growth.

## RATES OF FERTILIZER

There are literally dozens of fertilizer formulations. The most common and easiest to acquire at local hardware stores and garden centers are granular 8-8-8 and 13-13-13 all-purpose lawn and garden foods.

Both of these balanced formulations do well for shade trees. Use six ounces (3/4 cup, or frozen juice-concentrate can full) of 8-8-8 or four ounces (1/2 cup) of 13-13-13 in each application hole. If application holes are spaced properly, the tree will automatically receive the proper amount and distribution of fertilizer.

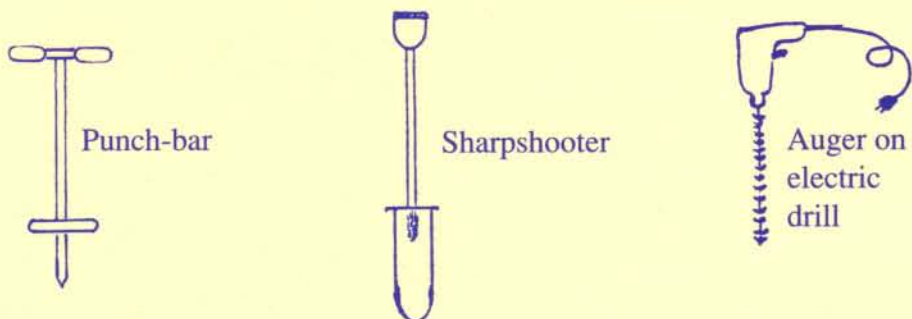
Pines and other evergreens tend to be more prone to root burn from high concentrate fertilizers than are most deciduous trees. Use 8-8-8 for evergreens **not 13-13-13.**

Pines and other evergreens tend to be more prone to root burn from high concentrate fertilizers than are most deciduous trees. Use 8-8-8 for evergreens not 13-13-13.

As a general rule in figuring how much fertilizer to buy, measure the diameter of the tree to be fertilized at four and one half feet above the ground. Buy about one pound of 8-8-8 fertilizer for each inch of diameter. Thus, you would need 30 pounds of 8-8-8 for a 30-inch diameter tree. If you use 13-13-13 you would need approximately one-third less, or 20 pounds of fertilizer.

## METHODS OF FERTILIZATION

For application of fertilizer in the ground, a sharpshooter shovel may be the most practical for many, but an inexpensive soil auger mounted on an electric drill is the easiest way to make the holes. A punch-bar (available through forestry supply companies) can also be used. Many people are surprised to learn that most of a tree's feeder roots lie in the top 12 to 16 inches of soil.



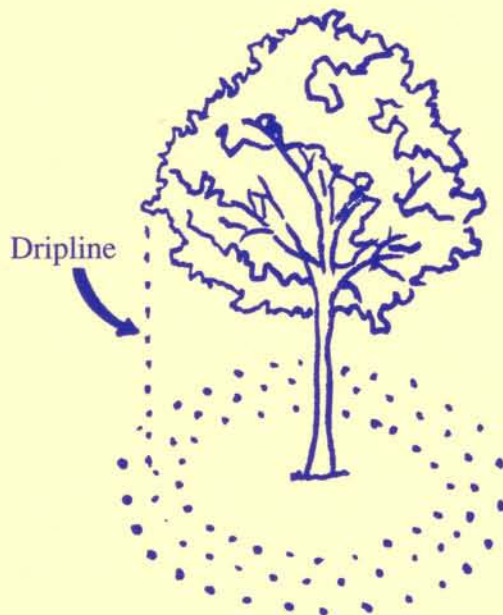
The objective is to get the fertilizer below the sod but not too deep. Fertilizer applied too close to the surface will cause grass in the immediate area of each hole to become greener than the other grass giving your lawn an undesirable patchy look. Between four inches and twelve inches down is just right for the fertilizer application.

Generally, feeder roots of trees occupy the outer two-thirds of a circular band whose outer edge lies just beyond the spread of the branches.

The holes should be placed two feet apart throughout this entire area. For young trees and seedlings, **do not place fertilizer within two feet of the trunk. On larger trees it is not necessary to place fertilizer closer to the trunk than six or eight feet.**

Most of the fine root hairs that absorb nutrients are located at the soil surface. There is fierce competition at the soil surface between trees and grass roots, thus the recommendation of putting the fertilizer in the holes below the sod. The holes also tend to combat soil compaction, allowing rain water and air to percolate deeper into the soil.

Broadcasting fertilizer will provide some benefit to trees, but the grass will absorb most of the nutrients. If no sod is present in the root area of the tree, surface application of fertilizer is the most efficient method, provided that none of the fertilizer comes in contact with the tree's trunk.



### OTHER URBAN FORESTRY NOTES AVAILABLE

Note No. 1 "Guidelines for Fertilizing Yard Trees"  
Note No. 3 "Planting Instructions for Shade Trees"  
Note No. 5 "Planting Trees During Construction"

Note No. 2 "Pruning Shade Trees"  
Note No. 4 "Landscaping the Home for Energy Conservation"  
Note No. 6 "Additional Tips for Successful Shade Trees"

This public document was published at a total cost of \$300.26. Five thousand (5,000) copies of this public document were published in this first printing at a cost of \$300.26. The total cost of all printings of this document, including reprints is \$300.26. This document was published for Department of Agriculture and Forestry, 5825 Florida Blvd., Baton Rouge, LA 70806 by the Division of Administration, State Printing Office, to inform the public on the proper method of fertilizing shade trees under special exception by the Division of Administration. This material was printed in accordance with the standards for printing by state agencies established pursuant to R.S. 43:31.