

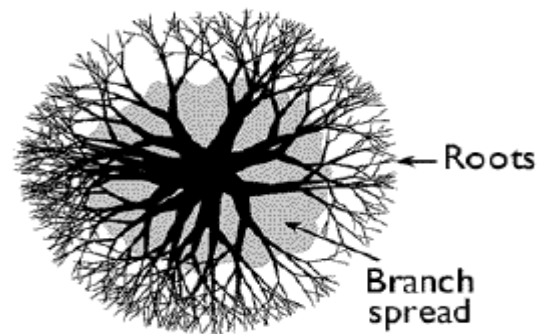
GARDEN NOTES: WINTER



TREE FERTILIZING

Todd May of Komp Horticulture says that November through February is the time to deep root feed all trees (including Crepe Myrtles). During this time the tree's roots take the nutrients from the soil and apply them to important health-promoting functions such as root development and disease resistance, rather than simply putting out new growth.

The objective of fertilization is to put the nutrients where they will best be taken up by the tree's roots. Therefore, it is necessary to fertilize throughout the entire root system and in general, the roots extend well beyond the outer reach of a tree's branches.



The fertilizer must also be placed underneath the roots of any competing plants such as grass or other ground cover. Spreading granular fertilizer on the lawn might make your grass greener, but it will likely not help your tree.

Tree fertilizers are made up of macronutrients (Nitrogen, Phosphorus, and Potassium) and micronutrients (such as Iron, Magnesium and Manganese). These minerals all have different effects on the growth of a tree and certain trees benefit most from specific formulations. Best results are likely if you use the right fertilizer for your tree.

There are several companies that offer deep root tree fertilization services for a fee but Mr. May says that the best way to do it yourself is to drive a steel rod or a wooden stake into the ground to allow passage for the fertilizer to penetrate the soil. The rod or stake should be of about a one-half inch to one inch in diameter and the resulting holes should be made about 12 inches to 18 inches apart and to a depth of 14 inches to 18 inches. Todd May says he most often recommends a balanced fertilizer such as 13-13-13 or

equivalent (available at any garden center supply store) and suggests using one pound of fertilizer for each inch diameter of trunk size, divided equally among the soil penetrations; for instance if it is a 5 inch diameter tree, you would use five pounds of fertilizer. He also advises to water well after fertilizing.

The main reason to fertilize trees and shrubs is to bolster their health so they are better prepared to fight off pests, disease, and environmental stresses. While fertilizer can't solve all of a tree's problems, it will go a long way to give it a fighting chance.

TREE PRUNING

A tree may need pruning for a variety of reasons:

- to remove diseased or storm-damaged branches
- to thin the crown to permit new growth
- to allow better air circulation
- to reduce the height of a tree
- to remove obstructing lower branches
- to shape a tree for design purposes

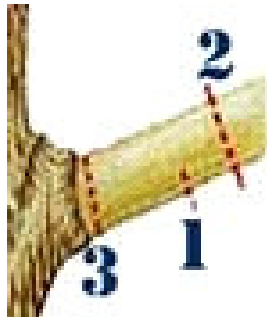
How to Prune

Whether the tree is large or small, the key is to prune the unwanted branch while protecting the stem or trunk wood of the tree. Tree branches grow from stems at nodes and pruning always takes place on the branch side of a stem-branch node. Branches and stems are separated by a lip of tissue called a stem collar which grows out from the stem at the base of the branch. All pruning cuts should be made on the branch side of this stem collar. This protects the stem and the other branches that might



be growing from it. It also allows the tree to heal more effectively after the prune. To prevent tearing of the bark and stem wood, particularly in the case of larger branches, use the following procedure:

1. Make a small wedge shaped cut on the underside of the branch just on the branch side of the stem collar. This will break the bark at that point and prevent a tear from running along the bark and stem tissue.



2. Somewhat farther along the branch, starting at the top of the branch, cut all the way through the branch leaving a stub end.

3. Finally, make a third cut parallel to and just on the branch side of the of the stem collar to reduce the length of the stub as much as possible.

A similar procedure is used in pruning one of two branches (or one large branch and a stem) joined together in a 'u' or 'v' crotch. This is known as a drop crotch cut. Make the first notch cut on the underside of the branch you're pruning well up from the crotch. Secondly, cut completely through the branch from inside the crotch well up from the ridge of bark joining the two branches. Finally, to shorten the remaining stub, make the third cut just to one side of the branch bark ridge and roughly parallel to it.

Should I Seal the Wound?

Trees naturally close wounds that result from branch removal, so ideally, pruning wounds should be left to close without any help from you. Also, since most pruning should be done in late fall or winter, insects should not be much of an issue. However, there exist some circumstances when it is preferable to seal the wound with a non-asphalt-based pruning sealer. In particular, it is recommended that you seal pruning wounds on trees that are susceptible to damaging insect infestation such as birch, oak, and elm trees though the practice is not at all common in our area. Also, if the weather is particularly dry, a pruning sealer will help the tree retain more moisture.

When to Prune

For most trees, the dormant season, late fall or winter, is the best time to prune although dead branches can and should be removed at any time. Todd May says that now is the best time to do any tree trimming and advises pruning completion before end of Spring.

Pruning during the dormant period minimizes sap loss and subsequent stress to the tree. It also minimizes the risk of fungus infection or insect infestation as both fungi and insects are likely to be in dormancy at the same time as the tree. Finally, in the case of deciduous trees, pruning when the leaves are off will give you a better idea of how your pruning will affect the shape of the tree. Some fruiting and flowering trees should be pruned at other

times of the year, depending on whether they flower on the previous year's growth or not.

How Much To Prune

When deciding how much to prune a tree, as little as possible is often the best rule of thumb. All prunes place stress on a tree and increase its vulnerability to disease and insects. Never prune more than 25% of the crown and ensure that living branches compose at least 2/3 of the height of the tree; Pruning more risks fatally damaging your tree. In some cases, storm damage, height reduction to avoid crowding utility lines or even raising the crown to meet municipal bylaws, your pruning choices are made for you. But even in these instances, prune as little as you can get away with.

Pruning Tools

Advice regarding tools is pretty straight-forward. Buy the best tools you can afford and keep them in good condition. There are also some new pruning tools out on the market that can greatly decrease the effort involved in pruning.

After each tree you prune, remember to disinfect your pruning tools in a solution of 1 part bleach to 9 parts water followed by cleaning with soapy water and then drying. Tree diseases are easily spread by infected tools.

Finally, if you're not skilled in the use of tools like chain saws or if the pruning job is more than you're capable of managing, hire an expert...Safety first.

SHRUBBERY & TURF

Water Protects

Make sure that you always water well prior to any hard freeze. A plant will die much quicker if is allowed to get dry versus keeping it well watered. Plants have there own natural antifreeze if kept on the moist side. Also consider that your grass / turf is going to need to be watered as well, there have been past winters where grass has been damaged by freeze.

Fertilize Turf

Start fertilizing your turf areas in late February to early March, using a high Nitrogen slow release such as a 25-5-10 or equivalent. Maas Nurseries recommends Scott's brand as the best type of residential fertilizer and says that you can also get the Scott's brand that contains an herbicide for weed control (especially for broadleaf weeds). They advise taking extra care when spreading out grass fertilizer with broadleaf herbicide added around shrubs and trees, as shrubs and trees themselves are considered broadleaf and could be harmed. The damage will not be present at first, but usually becomes apparent in about three to four months when the herbicide has had

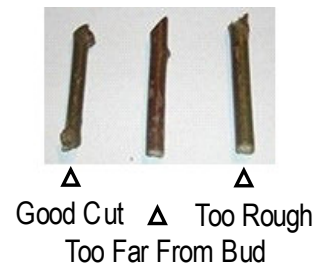
time to get to the top of the tree. Browning out throughout the tree will be noticed. Nine times out of ten you can go back by asking questions and the fertilizer is where it started. The only remedy is water, water and more water, to dilute the herbicide. The last thing you want to do is add more fertilizer as this will only compound the problem. Maas says that you just have to be patient and hope for the best. Usually larger trees will come back without too much damage; smaller trees are more at risk.

General Pruning

Todd May recommends that we DO NOT trim back any plant material in our area until mid February as pruning will produce growth that will be too tender in cold weather.

When to Prune Roses

The traditional time to prune roses in Houston is on Valentine's Day (February 14th), and they should be fertilized then as well.



Rose Pruning Basics

- 1. Use clean, sharp tools**
- 2. Look at the overall plant, but begin pruning from the base of the plant.**
- 3. Prune to open the center of the plant to light and air circulation**
- 4. Make your cuts at a 45-degree angle, about 1/4 inch above a bud that is facing toward the outside of the plant.**

- 5. Make sure it is a clean cut (not ragged)**
- 6. Remove all broken, dead, dying or diseased wood (Any branches that look dry, shriveled or black. Cut until the inside of the cane is white.)**
- 7. Remove any weak or twiggy branches thinner than a pencil.**
- 8. If cane borers are a problem in your area, seal the cut with a white glue, such as Elmer's, wax or nail polish.**
- 9. Remove sucker growth below the graft.**
- 10. Remove any remaining foliage**

MaasNurseries.com suggests use of a well balanced fertilizer, such as 10-10-10, N-P-K. The three numbers used to describe a fertilizer tell how much of the three major nutrients are in that fertilizer. The first number (N) is the Nitrogen content, the second (P) is Phosphorous, and the third (K) is Potassium. Nitrogen or Nitrogen-Phosphorous-Potassium, (leaves,flowers,roots).

Pruning azaleas

Experts say that the best time to prune azaleas is in early spring, before the plant puts out new growth. Although you'll be cutting off that year's blooms, it gives the plant the full growing season to fill out, and time for the new growth to mature before winter.

Pruning while they are in bloom is next best, and gives you some cut flowers, or pruning just after they bloom lets you enjoy the flowers on the plant.

Since most azaleas start growing next year's flower buds soon after they bloom, pruning after mid-summer cuts off

next year's bloom. Late pruning also runs the risk of the tender new growth being killed in a freeze.

Before you start, look at the plant you intend to work on, remembering that branches which are shaded out often die back and become dead wood anyway. Remove these first, as the effect of removing them may alter the way you approach pruning the rest of the branches to maintain the shape of the bush.

Use clean cutters, and keep them clean as the work progresses, using a sterilizing solution such as denatured alcohol or a 10% Clorox solution, particularly if any cuts are in infected wood.

Older plants may have a number of tall branches which need to be eliminated. Doing that over several years reduces the shock to the plant. Remove two or three of the tallest branches, taking care to cut back to a side branch which is heading in the desired direction, and which is about 1/3rd the size of the cut branch. Cut close to that side branch, as any stubs will die back to the side branch anyway, and leave dead wood which may become infected later.

Next year take out two or three more branches using the same process, spreading the pruning over a three year cycle. This approach will result in the plant sending out new growth near the base, and lets you manage the shaping of the plant to achieve a nicely shaped bush.

Hold off the trimming of Azaleas until the complete bloom cycle has ended, usually March/April, and at that time (after blooming) Mr. May recommends trimming them back and fertilizing once per month for 3-months. Then he advises to stop feeding. Later only an elemental type of fertilizer like an Iron and Sulphur blend (Sulphur / Acidifier PH) is recommended to help keep the Azaleas nice and green, which you can apply at any time of the year. Todd says that Ph is a big factor in getting the best results on Azaleas, and says that if you just fertilize and are not putting down any acid with iron (Sulphur / acid), you are not allowing the fertilizer to do its best job in our soils. One can fertilize all day long but the product will not be picked up by the plant unless you change the ph.

Resources:

MaasNurseries.com, How and When to Prune Roses by [Marie Iannotti](#), Azalea Society of America, Todd May of Komp Horticulture, Tree Help.com. Some Images adapted from USDA Forest Service.

**Submitted by: Suzanne Walsh
December 2006**