

## Archive for June, 2009

### Watering

Saturday, June 6th, 2009

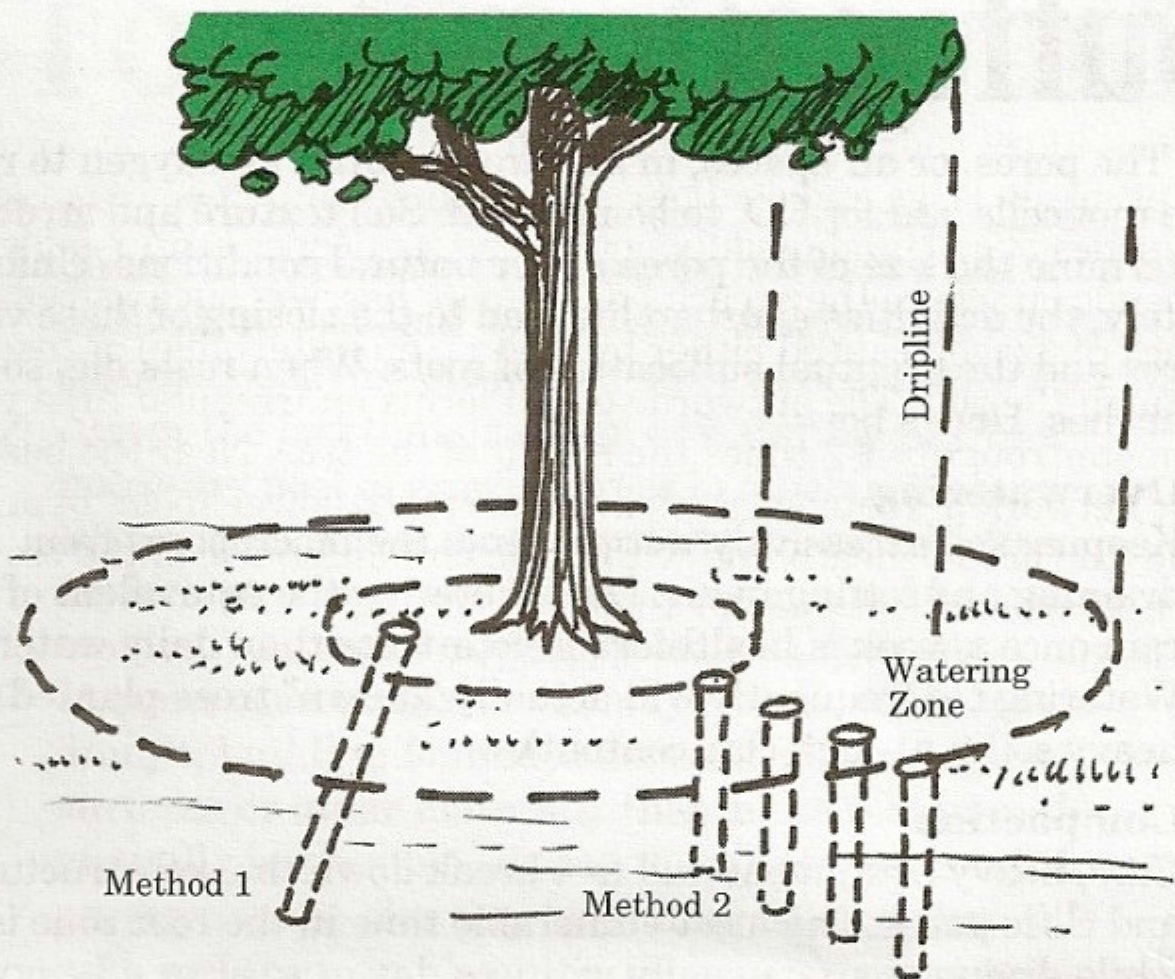
During their first 3-4 years of life, urban trees are especially vulnerable to drought. Older trees usually have a more extensive root system, and are better able to draw out the water molecules held tightly around soil particles. Even so, deep watering after a prolonged dry spell is beneficial to all but those dry land species that have adapted to such conditions. It is also important that conifers have adequate soil moisture just before the winter freeze sets in, because these species hold their “leaves” (a.k.a. needles) all winter and continue to lose water through the transpiration process.

Watering should soak the top 12 inches of soil. A simple soil sampler can be used to determine how much watering is required to soak the soil to that depth. It can also be used to check on how soon the sub-soil dries out. Generally, sandy soils need rain or watering every 4-7 days, whereas clay soils may hold their water up to 10 days. *Avoid short frequent watering, as this usually does not penetrate deeply enough and encourages root growth toward the surface.*

Watering may be effective simply by using the garden hose or sprinkler, especially if the planting site is flat or saucer shaped. However, to be most effective, consider using one of the two methods depicted below, in order to aid deep watering and to provide aeration for roots. In addition, if fertilization has been recommended for your tree, the deeper penetrating tubes will help to insure that the fertilizer reaches the tree roots rather than merely fertilizing the grass or other plants growing in the upper 1-2 inches of soil. There are also “injector wands” sold at garden centers which can be used to aid deep watering.

**WHEN WATERING TREES AT ANY STAGE OF THEIR LIFE, BE SURE TO NOT OVER WATER! THIS HAPPENS MORE OFTEN THAN ONE MIGHT BELIEVE, ESPECIALLY DURING DRY PERIODS, AND CAN BE MORE DEADLY THAN DROUGHT!!!!**

Good luck with your trees, and let’s hope for well-spaced, and adequate rainfall this summer. We don’t need drought, or “frog stranglers,” but you never know; after all, this is Missouri.....



## Deep Watering Methods

### Method 1

Drill 3 or 4 holes approx. 18" deep and 1"-2" in diameter at an angle and outward from near the base of the tree. Inserting perforated plastic pipe and/or gravel will prolong the use of the holes before new ones need to be drilled.

### Method 2

Drill 18"-deep holes,  $\frac{3}{4}$ "-1 $\frac{1}{2}$ " in diameter, at 12" intervals around the drip line. Repeat at 12"-24" intervals within the watering zone. Fill holes with coarse sand and peat, fine gravel, or insert perforated pipes. Gravel surrounding a pipe, with less frequent holes, may also be used. Drill new holes when the old ones no longer accept water easily.

## **Pruning Young Shade Trees**

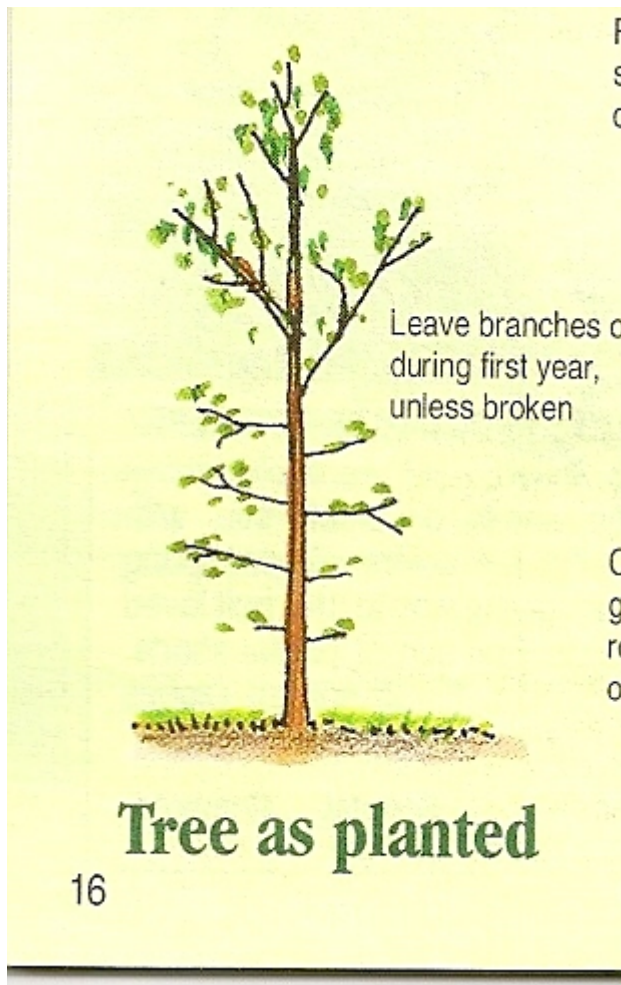
Saturday, June 13th, 2009

As the twig is bent, so grows the tree. This admonition, originally aimed at getting students started in the right direction with regard to their education, also serves as the cardinal principle for pruning trees. How you prune your tree during its first few years, will affect its shape, strength, and life span. In addition, proper pruning will save you money and give you safer, healthier, more beautiful, and easier to maintain trees.

Most people tend to keep a closer eye on a newly planted tree than on one that is well established. Sometimes this is a good thing, because one can readily address any problems that might arise, which endanger the young tree. However, a person must also be careful to avoid trying to do too much to “help the tree along,” which might also endanger it. In general, it is best to step back and let the newly planted tree establish itself and grow as much as possible, during the first year. Of course, it does need the basic protections from mowers, weed whips, insect and disease attacks, etc. There is plenty of time to “bend the twig” after the first year.

In general, you should leave as many branches as possible on a newly planted tree during the first growing season. Remove them only if they are broken. During all stages of the trees life, pruning should be done as lightly as possible, and only when there is good reason to prune. Never remove more than one-fourth of a trees crown in a season. Remember, it is the leaves, which generate the nutrients necessary for good growth (through the photosynthetic process); so the less leaf surface there is, the less food-generating ability the tree has, and that equals less growth and development.

Over the next few weeks, I'll offer more tidbits about pruning young trees, so stay tuned.....



### **Making Pruning Cuts**

Friday, June 19th, 2009

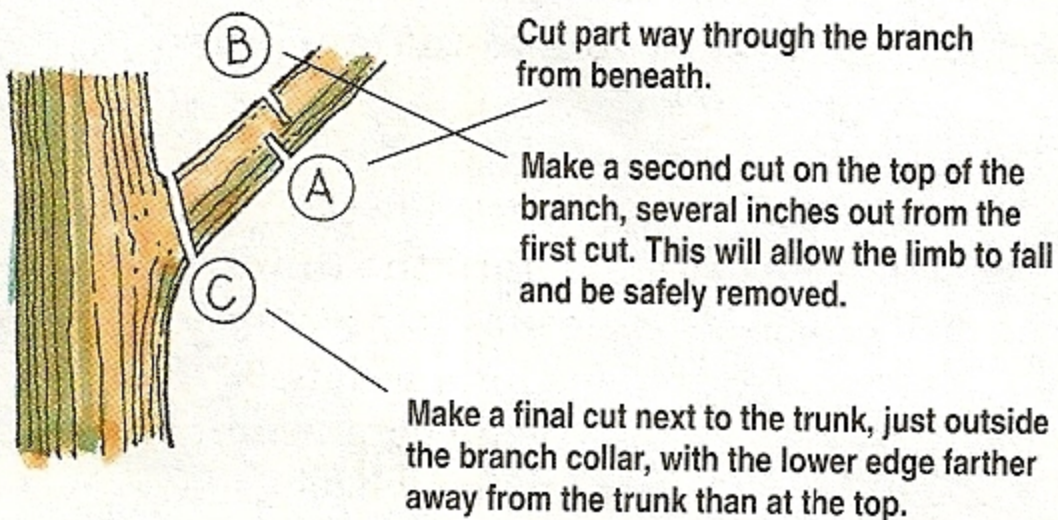
Before one begins to prune young shade trees, it is important to understand exactly how to make proper pruning cuts. Proper cuts facilitate the healing process and minimizes the risk a tree might experience from invasive organisms, as well as quickly allowing the protective callus tissue to form around the wound. The following illustration shows how the proper cuts are made, depending on the size of the limbs or branches to be removed. (Illustration by the National Arbor Day Foundation).



# How to Make a Pruning Cut

## Pruning Large Limbs:

Large, heavy limbs could tear loose during pruning, stripping bark and creating jagged edges that invite insects and disease. That won't happen if you follow these steps.



## Pruning Smaller Branches:

Smaller branches should be cut just beyond a lateral bud or another small lateral branch. The ideal cut is sharp and clean, and made on a slight angle.



Correct  
Pruning  
Cut



Too  
Close



Too  
Long



Too  
Slanted

Next time I'll talk about when to start pruning young trees, and how to deal with double leaders, watersprouts, and suckers.

## Prune For The Future

Saturday, June 27th, 2009

As you prune, remember that the branches do not stretch upward as the stem lengthens. A limb 5 feet from the ground will still be 5 feet from the ground at age ten – only longer and thicker than it is now. Try to visualize what a branch will look like later, and remove any that will cause an obvious problem. Prune shade trees as lightly as possible, and only when there is a good reason to prune. Never remove more than One-fourth of a tree's crown in a season. Following, are some general guidelines for pruning young trees



(illustrations from National Arbor Day Foundation).

prune.  
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's

Prune off water  
sprouts in the  
crown

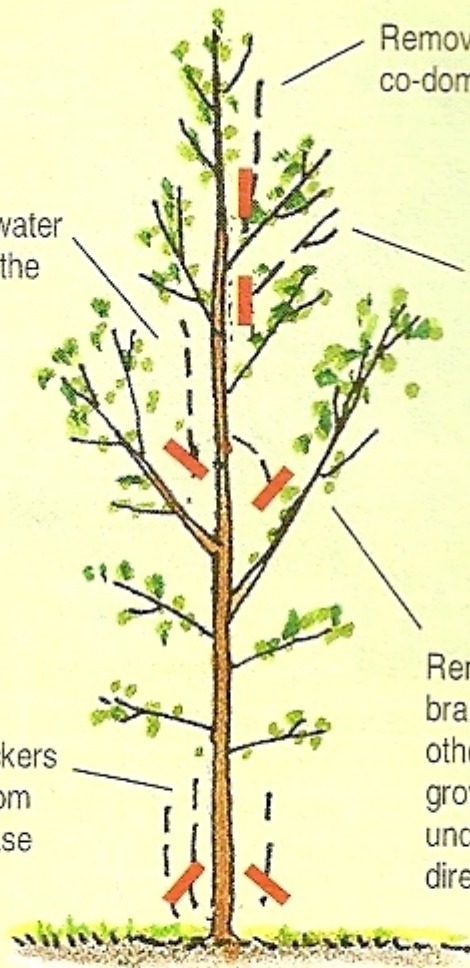
hes on  
ear,  
on

Cut off suckers  
growing from  
roots or base  
of trunk

Remove one  
co-dominant leader

Thin out  
branches  
to reduce  
competition  
for light

Remove any  
branches that rub  
others or are  
growing in an  
undesirable  
direction

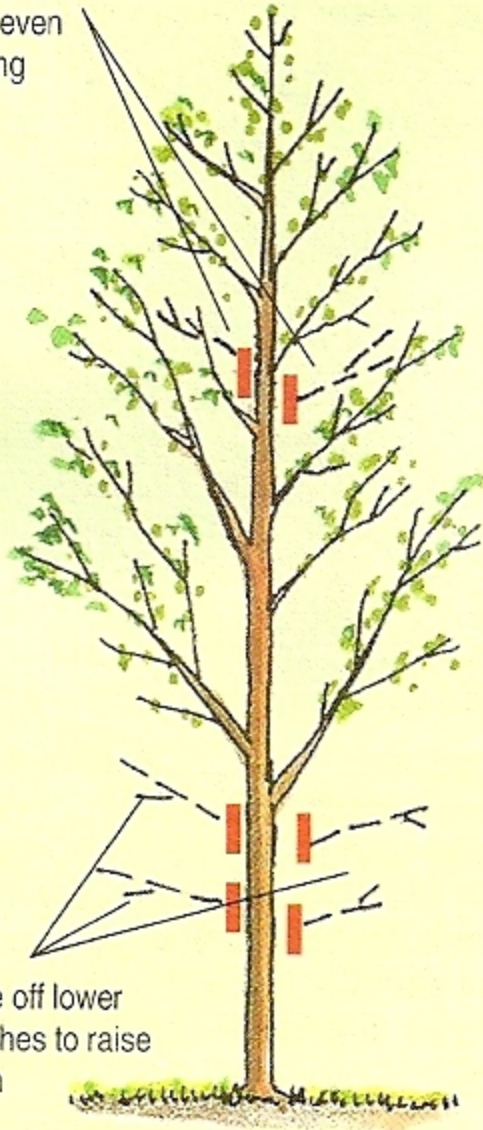


**By age 3-4 years**



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Thin out  
branches for  
more even  
spacing



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Prune off lower  
branches to raise  
crown

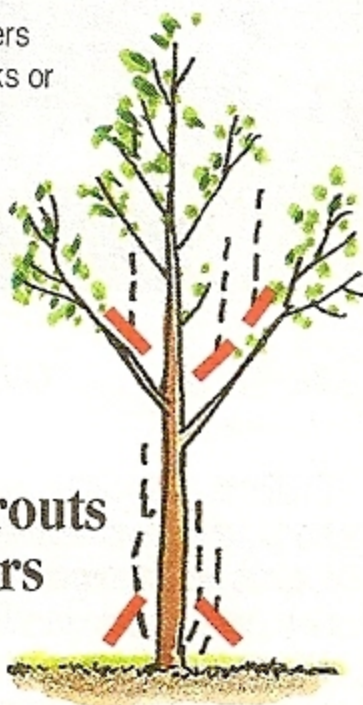
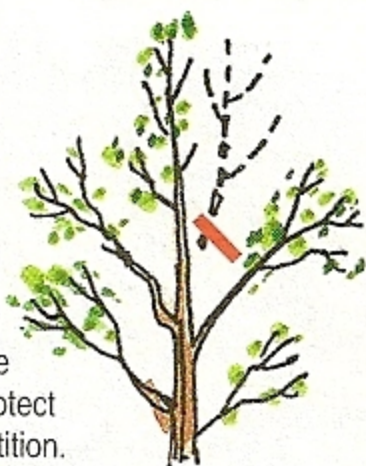
**By age 5-7 years**

Dealing with double leaders and watersprouts (or suckers) can sometimes be quite vexing. Here is some general guidance for dealing with them:



## Double Leaders

Select a single leader and protect it from competition. Remove co-dominant leaders that have crooks or other defects.



## Watersprouts & Suckers

Suckers and watersprouts are rapidly growing, weakly attached branches that can occur at the base or in the crown. Remove them as soon as possible.