How Do I Care For My Tree?   Pruning Young Trees

Proper pruning is essential in developing a tree with a strong structure and desirable form. Trees that receive the appropriate pruning measures while they are young will require less corrective pruning as they mature.

Keep these few simple principles in mind before pruning a tree:
- Always have a purpose in mind before making a cut. Each cut has the potential to change the growth of the tree.
- Poor pruning can cause damage that lasts for the life of the tree. Learn where and how to make the cuts before picking up the pruning tools.
- Trees do not heal, they seal. When a tree is wounded, it must grow over the damage. As a result, the wound is contained within the tree forever.
- Small cuts do less damage to the tree than large cuts. Correcting issues when a tree is young will reduce the need for more drastic pruning later.

Making the Cut

Pruning cut location is critical to a tree's growth and wound closure response. Make pruning cuts just outside the branch collar to avoid damaging the trunk and compromising wound responses. Improper pruning cuts may lead to permanent internal decay. Cuts should be made to a branch that is at least 1/3 the size of the branch you are removing. Avoid cutting the branch flush with the trunk.

If a large branch must be shortened, prune it back to a secondary branch . Cuts made between branches may lead to stem decay, sprout production, and misdirected growth.


Pruning Tools

Small branches can be cut easily with hand pruners. Scissor-type or bypass-blade hand pruners are preferred over the anvil type as they make cleaner cuts. Cuts larger than one-half inch in diameter should be made with a pruning saw. Hedge shears should not be used for shaping to prune a tree. Make sure tools are kept clean and sharp.

Establishing a Strong Scaffold Structure

A good structure of primary branches should be established while the tree is young. These limbs, called scaffold branches, are a mature tree's framework. Properly trained young trees will develop a strong structure that requires less corrective pruning as they mature. The goal in training young trees is to establish a strong, central trunk with sturdy, well-spaced branches. This form mimics tree growth in forest settings where outward branching is limited by neighboring trees.
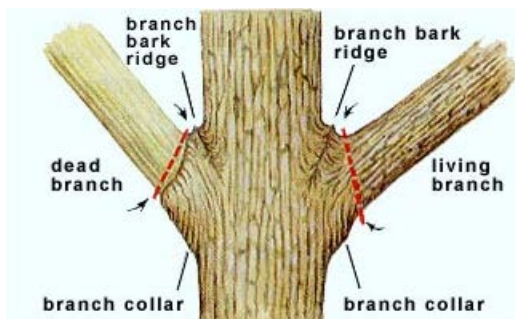
Trunk Development

For most young trees, maintain a single dominant leader growing upward. Do not prune back the tip of this leader or allow secondary branches to outgrow the main leader. Sometimes, a tree will develop double leaders known as codominant stems. Codominant stems can lead to structural weaknesses, so it is best to remove or shorten (subordinate) one of the stems while the tree is young so the central leader will assume dominance. A tree's secondary branches contribute to the development of a sturdy, well-tapered trunk. It is preferable to retain some, at least temporarily, to promote trunk diameter growth.

Permanent Branch Selection

Many of the branches present on a young tree at planting will be pruned away at maturity to provide clearance for mowing, pedestrians, and/ or vehicle traffic. The height of the lowest permanent branch is determined by the tree's intended function and location in the landscape. The space between permanent branches should be approximately 3 percent of the tree's eventual height (for example, 1.5 feet for a tree that can grow to be 50 feet tall). Balance should be considered by retaining some branches in each direction radially. Make sure one scaffold branch is not allowed to grow directly above another.

Beyond spacing, the strength of branch structure depends on the relative size of the branches and branch angles. Branches similar in diameter to the trunk or limb from which they arise are more prone to failure than those smaller in diameter. Narrow angles of attachment can enclose bark within a branch union. This included bark weakens the attachment and may lead to failure when the tree matures. Branches with weak attachments should be pruned while still small.

When pruning, be sure not to remove too many branches. Leaves and their supporting branches are major sites of food production and storage. Eliminating too much of the canopy can "starve" the tree, reduce growth, and increase stress. ***No more than 25 percent of the crown should be removed in one pruning***.

Newly Planted Trees

Pruning of newly planted trees should be limited to the removal of dead or broken branches. All other pruning should be withheld until the second or third year, when a tree has recovered from the stress of transplanting.

Wound Dressings

Recommended on oaks where oak wilt is a concern, otherwise, wound dressing is not necessary.

Remove branches shown with dotted lines.

- Remove limbs that extend beyond the natural outline of the crown
- Remove dead, broken or crossing limbs.
- Remove limbs that turn inward towards the trunk.
- Don't leave branch stubs.
- Shorten low branches to develop trunk thickness.
- Remove root suckers and watersprouts.
- Remove competing main stems to develop a single trunk.
- Remove sharp, V-shaped branch attachments.
- Always make pruning cuts on the outside of the branch collar.

2. second cut
branch bark ridge
1. undercut
3. final cut
branch collar