

## Pruning Young Trees

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Some plants are sold as one-year whips--are young trees with a long stem and few or no branches. Most trees, however, are sold as two-year, three-year or older specimens on which structural branches have already begun to develop.

Prune at planting only to remove broken or damaged branches or roots, to remove branches that will not be suitable to form the main framework, or to shape the plant to a somewhat symmetrical form. Do not prune back the central leader of the tree unless you want no leader as with certain small flowering trees or plant you wish to be multiple stemmed.

Early pruning to direct the growth of young trees is very important if mature trees are to function as expected in the landscape.

The growth habit of a plant and its landscape use determine how and to what extent the tree must be pruned. Trees with a central leader and a conical shape, such as conifers and some deciduous species, need little or no pruning. Trees with irregular growth habits, poor branch structure or vigorous laterals, such as sugar maple, may need considerable pruning.

Prune a young tree only enough to effectively direct its growth and to correct any structural weakness.

Branches selected for permanent scaffolds must have wide angles of attachment with the trunk for greatest strength. The position of a limb on a trunk remains the same throughout the life of the tree. How high above the ground the first permanent branch should be depends on the tree's use. The lowest branch can be a few inches from the ground in trees used for screening or windbreaks, or 6 to 12 feet

above the ground in trees over a street or a patio.

Vertical branch spacing is important in many species for future dominance, structural strength and appearance of the tree. On mature trees, closely spaced scaffolds may break up in storms more easily than more widely spaced ones. Closely spaced scaffolds will have fewer laterals, resulting in long, thin branches with little structural strength. Major scaffold branches should be spaced at least 8 inches and preferably 10 to 24 inches apart vertically.

Radial branch distribution should allow five to seven main scaffolds to fill the circle of space around the trunk. With radial spacing, branches radiate from the trunk like spokes on a wheel. Because no one limb is directly over another they do not compete for light.

Direct plant growth by pruning during the growing season as well as when the tree is dormant. During the growing season, pruning is usually confined to temporary shoots and branches that will not become permanent branches. Heading back the growing point or completely removing a shoot will reduce its competition with the leader or shoots selected for scaffold limbs. Remove or prune shoots that are too low, too close or too vigorous in relation to the leader and shoots selected to become the scaffold branches.

During the growing season, heading back the tips of vigorous growing, temporary branches may be necessary to keep them in bounds and reduce competition with the leader and permanent branches.

A tree at planting may not be tall enough for the selection of any permanent lateral branches. If laterals are present below the height where the lowest permanent branch is wanted, they should be handled as temporary laterals. After two or three years, when the trunks of small trees are 2 or more inches in caliper, you can begin to reduce the number of temporary branches. Over the next two or three years remove the largest temporary branches at each pruning to minimize the size of the pruning wounds.