

Figure 1. Heading-back is cutting to a tub, small lateral, or bud.

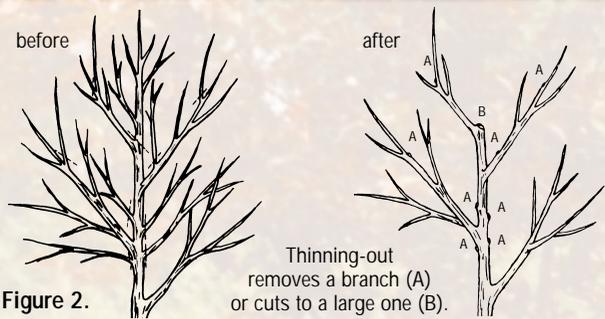


Figure 2. Thinning-out removes a branch (A) or cuts to a large one (B).



Figure 3. Removing a large limb; first cut at (A), second (B). Final cut made at crotch (C)

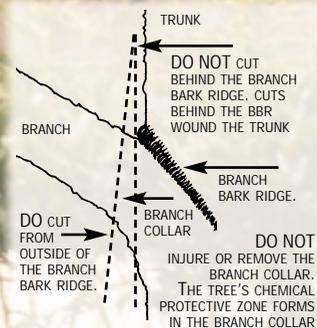


Figure 4. Make third cut outside small ridge of bark, angling it away from trunk slightly

# GARDEN INFORMATION SERIES



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## PRUNING TREES AND SHRUBS



# PRUNING

## TREES AND SHRUBS

If the right plant is selected for the right spot and purpose in the home yard or landscape, there is usually little need for pruning mature trees and shrubs. Indeed, unnecessary or improper pruning can ruin or seriously damage plants. Proper and timely pruning, though, can be useful to train young plants, improve appearance, control shape and size, influence flowering and fruiting, encourage new growth, and remove damaged or pest-infested branches.

### TWO TYPES OF PRUNING CUTS

The two main types of pruning cuts are *heading back* and *thinning out*, and trees and shrubs respond differently to each type. Heading back means cutting a branch back to a stub, smaller branch, or bud (Fig. 1). It usually results in a flush of vigorous, upright, dense shoots from just below the cut. These new shoots are often weakly attached and split out easily. Heading back usually changes the shape of a tree or shrub dramatically. Generally, heading back is most appropriate when training and directing growth of young trees or when creating hedges with shrubs.

Thinning out means removing a branch to its origin or to another branch that can replace it (Fig. 2). Resulting new growth is usually spread fairly evenly throughout the plant, so there is little change in its natural appearance and overall shape. Leaves will grow more in the center of the tree or shrub since more light can penetrate into the interior.

### MAKING THE CUT

Use properly sharpened, clean pruning shears or loppers for small branches and saws for large ones. When pruning diseased plants, clean pruning tools in household bleach after each cut. Remove unwanted small branches, including those from below the graft union or suckers and watersprouts, close to the trunk or branch from which they arise. Make small cuts most easily by a single, upward cut. When heading back small branches, make the cut about  $\frac{1}{4}$  inch from a bud or branch pointing in the direction of the desired new growth, usually one pointing out and away from the plant.

Remove large branches in two steps involving three cuts (Fig. 3). Make the first cut about one-third through the underside of the branch a foot out from where it is to be removed. Make the second cut, a downward one completely

through the branch, one to three inches farther out than the first one. Remove the remaining, foot-long stub with the third cut, also a downward one. Avoid making cuts flush against the trunk when removing branches. Instead, make the cut just outside the small ridge of bark formed on the upper side of the crotch between the branch and the trunk, angling it slightly away from the trunk (Fig. 4). Covering cuts with tree seal or pruning paint is not recommended. Simply letting the cut air dry is best.

### PRUNING STRATEGIES

*Young trees*—Prune only enough to direct growth and correct any branch structural weaknesses. At the height desired for the intended use of the tree, select five to seven main branches spaced one to two feet apart vertically with wide angles of attachment. Head back or thin out branches interfering with the selected main ones. If main branches are slow to develop, head back the central leader (trunk) at the height at which the first branch is desired. Select the most vigorous new shoot that develops from the cut as the new leader and one other as the first main branch. Repeat this process as the leader develops until the desired

number and spacing of main branches is obtained. Pruning to direct growth and establish main branches is best done when the tree is actively growing.

*Mature trees*—Prune out dead, weak, diseased, and insect-infested branches. Remove low, broken, and crossing branches. Also, remove branches that could fall or otherwise cause injury or property damage. Thin out the interior only if needed to let more light in or to enhance a view. Although pruning to control size is not recommended, it might be necessary in some cases; if so, thinning out is preferred rather than heading back. Drastic heading back of a mature tree, popularly called “topping”, “coat racking”, or “hat racking”, is a severely damaging, unprofessional, and even dangerous practice, and is to be avoided.

*Shrubs*—Prune shrubs to keep their natural shape, thinning out older, taller growth. To control size remove old growth at or near the ground and leave the younger, shorter stems. Thin out and/or head back new growth as needed to reshape the plant.

*Hedges*—Prune back to the point of the last cut, keeping the top slightly narrower than the bottom to ensure adequate light reaches lower leaves.

*Pines and other conifers*—Because of their natural tendency to produce a strong, dominant, central leader, pines and other conifers usually require less pruning than broad-leaved trees to train and direct growth; however, the same principles apply to maintain tree health and structural soundness and, if necessary, to control size. Prune junipers and similar shrubs with a strongly spreading growth habit by thinning out leggy, overly vigorous branches, especially those overgrowing and shading out lower ones and challenging the shrub's natural pyramidal shape. Prune naturally rounded shrubs like arborvitae by thinning out individual branches, removing about  $\frac{1}{4}$ - $\frac{1}{2}$  the previous year's growth.

### TIME OF YEAR TO PRUNE

Remove damaged, weak, diseased, or insect-infested growth or small, unwanted branches anytime. Pruning just before the period of most rapid growth, usually in the spring, promotes rapid growth. Conversely, pruning when growth is nearly complete for the season tends to retard growth. Direct and train the growth of young trees during the growing season. Generally, prune deciduous trees when

they are dormant and evergreen trees before growth resumes in the spring. Prune spring-flowering trees and shrubs as soon as flowers fade and before new growth begins in late spring. Prune summer- and fall-flowering trees and shrubs in late winter or spring before new growth begins. Avoid pruning tender subtropicals and deciduous trees and shrubs late in the growing season since such pruning might stimulate new, tender growth that is susceptible to winter cold injury.

Ask your nursery or garden center professional for additional information and assistance about pruning trees and shrubs.

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