

# Pruning: Why, How and When

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When it comes to plant maintenance, pruning is one of the most important parts. Pruning involves the removal of specific plant parts such as branches, shoots, flower buds, fruits, and seed pods. For pruning to be the most effective, it is important to understand why, how, and when to prune.



## Why?

Pruning improves the health of a plant. Removal of dead, diseased, or damaged branches (*see photo, right*) can slow or even stop the spread of disease or insects. When branches are pruned properly, the wounds are covered with callus tissue, which seals the wound and inhibits the spread of diseases, or insects to the rest of the plant. Pruning the dense canopy of a tree also allows for air circulation and sunlight penetration. It is best to remove crossing branches that rub or interfere with each other, and branches that form narrow crotches. Watersprouts, which occur along branches, and suckers, which grow from the trunk or roots (*see photo, below left*), are vigorous shoots that are undesirable and should also be pruned. Another important reason for pruning is safety. Dead or dying branches can be a hazard to anything below a tree. Trees or shrubs with thorns or spines should be pruned back from walkways.

Pruning can also make an old tree young again. As trees and shrubs mature, their forms may grow unattractive, and undesirable. Pruning can rejuvenate old trees and shrubs and restore vigor, which can improve the appearance of the plant. Selective pruning, in some species, will also stimulate flowering, and in other species produce larger fruits. On the other hand, proper pruning of flower buds encourages vegetative growth.



## How?

The two basic types of pruning cuts are 'Heading cuts' and 'Thinning cuts'. Heading cuts are made to reduce the height of a plant by cutting back lateral branches and removing terminal buds. Heading cuts stimulate growth of the buds closest to the cut. The direction of new growth is determined by the direction in which the top remaining bud is pointing. Heading cuts should not be made on branches over one year old, to avoid encouraging suckers and watersprouts. For heading cuts: cut  $\frac{1}{4}$  inch above a lateral bud, sloping down and away from the bud. Thinning cuts are made to "open up" a plant to create better air circulation, sunlight penetration, and less wind resistance.

Branches are removed to the points of their origin. Thinning cuts encourage growth throughout the tree rather than in a single branch. When making thinning cuts to larger branches: cut outside of the branch collar at a 45 to 60 degree angle to the branch bark ridge. It is best not to cut the branch collar to help prevent decay from infecting the trunk. *(See photo, right)*

### **When?**

Pruning during different seasons affects the response of the plant to the pruning. Generally, late winter or early spring is a good time to prune most species of plants. During this time buds are still dormant and callus tissue forms rather quickly. When pruning flowering trees and shrubs, care must be taken not to cut off the flower buds. Trees and shrubs that flower on old wood (in spring) should be pruned in late summer. Those that flower on new wood (in summer) should be pruned in winter or spring. Summer pruning tends to inhibit growth of suckers and foliage. Late summer or early fall pruning will encourage vigorous regrowth. Any unexpected damage from weather or vandalism should be pruned immediately.

It is important to note that each plant may respond differently to pruning depending on its size, growth habit, age, the time of year the plant is pruned, and the severity of the pruning.

