Pruning

Pruning is one of the most important landscape maintenance practices. Pruning is both art and science: art in making the pruning cuts properly, and science in knowing how and when to prune for maximum benefits. So, techniques, timing and tools are critical to pruning success.

There are many reasons for pruning. You might want to train or direct the growth of plants into a form or into a specified space, like a formal hedge or a topiary. Or you may want to prune mature plants to control their size and shape, as in the case of fruit trees that are pruned low to the ground to aid picking or hedge plants pruned at a particular height.

Most people approach pruning unsure of what and how to do it. They often mimic what they have seen, thinking they know what to do. One thing to remember, in most cases it will grow back. Some people view pruning as a chore and give little forethought to technique as they hastily do the job. Proper pruning requires a basic understanding of how plants respond to various pruning cuts.

You can determine the characteristic shape and size of a woody plant and its response to pruning by the plant's natural pattern of shoot growth. When a seed germinates, and grows, only one growing point exists, the apex or terminal bud. When a terminal bud begins growing after being dormant, it leaves a bud scale scar on the branch. You can use the scars to determine the age of a limb or tree by counting the scars. As the new shoot elongate and develop, structures called nodes are formed. A node is the area on the shoot where a leaf is attached. One to three lateral buds are produced at each of these nodes. Growth of these lateral buds is directed by the terminal bud, which produces a hormone called auxin. Auxin moves downward in the shoot from the shoot apex and inhibits the growth and development of lateral buds. This is called apical dominance.

The intensity of apical dominance varies from one plant to another. Some plants suppress the growth of their lateral buds until the second growing season; others develop both lateral shoots and terminal buds during the first growing season.

Pruning is an invigorating process. By removing the tip, pruning temporarily destroys apical dominance and stimulates the growth of lateral buds into shoots. Pruning also reduces the size of the above-ground portion of the plant in relation to the roots. The root system services a smaller number of shoots and buds. The relative uptake of water and nutrients by the remaining shoots and buds increases, and a growth flush occurs. The more severe the pruning, the greater the regrowth. The plant is growing to restore a balance between the top and the root system. Pruning stimulates regrowth near the cut. Vigorous shoot growth will occur within a few inches of the pruning cut.

Here are some terms you must know before picking up the pruning tools.
Crown thinning—removing crowded growth from the crown of a tree or shrub to allow more light in and promote healthy growth.
Deadheading—removing spent flowers from a plant to make it tidier, promote continued bloom production, or prevent fruit and seed production.
Espalier—a plant trained through pruning to grow in a formal two-dimensional form.
Heading cut—a pruning cut that removes only a portion of a stem, often at an intermodal area (a cut made between two buds or nodes).
Pinching—nipping out the tip of a growing shoot with your fingers,
Rejuvenation (renovation) —revitalizing a plant, often through rejuvenative pruning back to nearly ground level; can be accomplished in one year or over several years depending on the species.
Shearing—tip pruning without selecting individual laterals or buds (topiary or hedge maintenance).
Thinning cut—removing branches at the branch collar, typically done to open the canopy to air movement and increase light penetration.
Tip pruning—pinching out or cutting back the growing tip of a shoot either to encourage side shoots or to remove damaged growth.
Topiary—the practice of pruning a shrub or tree to create a shape or living sculpture; accomplished with shearing or heading back cuts.

Pruning Tools

Pruning tools are available in a wide range of brands, styles and price points. Shop for quality and durability before price. Look for tool manufacturers that provide replacement parts on request and/or offer warranties against faulty materials or workmanship.

Most pruning tasks in the landscape can be done using hand pruners, lopping shears, pruning saws, pole pruners or hedge shears. There are two basic types of hand pruners: scissor-action or draw-cut pruners and anvil action or snap cut pruners. The scissor-action pruner has a sharpened blade that cuts by gliding against a thicker sharp blade. The anvil-action pruner has a sharp blade that cuts against a broad, flattened, grooved blade. Scissor-action pruners usually cost more than anvil-action pruners and generally make closer, smoother cuts. Anvil-action pruners can make larger cuts easier than scissor-action pruners. Hand pruners cut small twigs and branches up to a half inch in diameter. For larger branches, a half inch to 1.5 inches in diameter, lopping shears are best. Anvil type pruners are not recommended.

Lopping shears, or loppers, are like scissor-action hand pruners except they have larger blades and long handles that increase leverage. When using loppers, cut in one smooth stroke to avoid injuring the branch.

Use a pruning saw for branches larger than 1.5 inches in diameter. A pruning saw has a narrower blade and coarser points or teeth than a common carpentry saw. Most pruning saws also have curved blades that cut on the draw stroke, when pulling the blade toward you. Handle shapes vary among pruning saws and are a matter of personal preference. One type of pruning saw, the folding saw, is available for safety-conscious individuals.

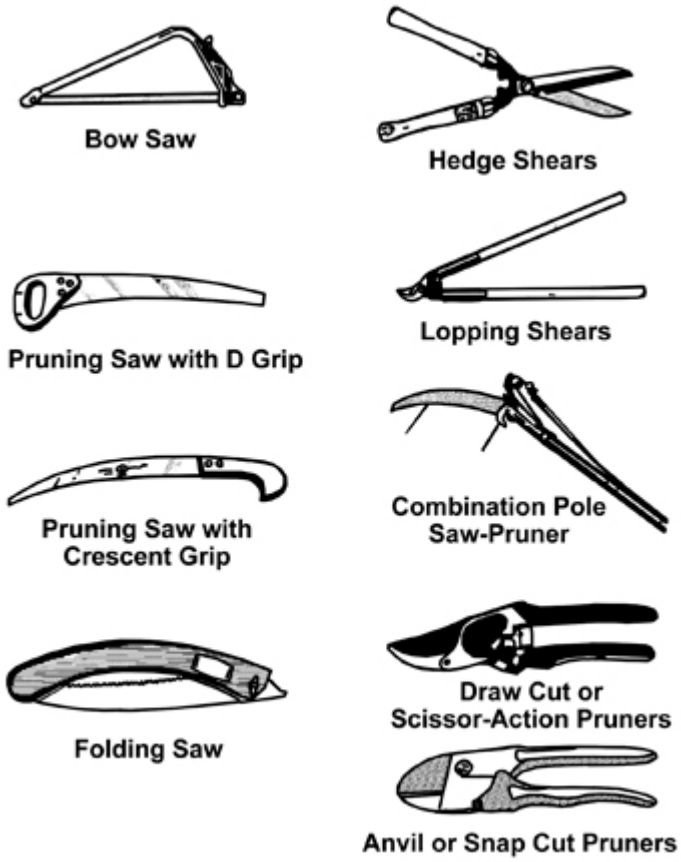
Pole pruners remove branches from trees that cannot be reached from the ground. Most pole pruners have both a cutting blade and a saw. The cutting blade is operated from the ground by a long rope or

lanyard that is pulled downward. The pole can be made from aluminum, fiberglass or plastic. Pole pruners typically have a telescoping type of extension.

Use hedge shears, manual, gasoline-powered, or electric to shear or clip hedges or other plants only when you want a neatly trimmed appearance. Do not cut large branches with hedge shears.

Keep pruning tools in good shape, sharpen and oil their blades at the end of each season. When sharpening loppers, hedge shears and scissor-action hand shears, sharpen only the outside surfaces of the blades so the inside surfaces remain flat and slide smoothly against one another. It is best to have pruning saws sharpened by a professional. Oil blades by wiping them with a cloth saturated in household oil.

Chain saws are motorized pruning saws designed to cut larger branches efficiently. Make sure you are properly trained on the use of these saws. They can be very dangerous. Always use a chain saw when you are fully stabilized. Never use a chain saw while standing on a ladder.



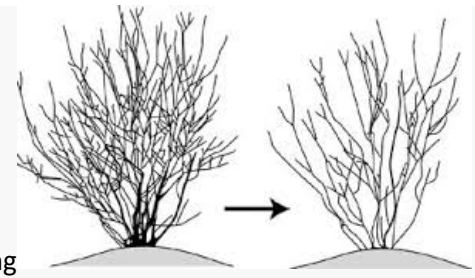
Pruning Techniques

There are two basic types of pruning cuts used most often, heading and thinning. Each result in a different growth response and has specific uses.

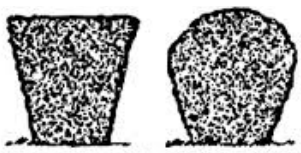
Heading removes the terminal portion of shoots or limbs. By removing apical dominance, heading stimulates regrowth near the cut. It also is the most invigorating type of pruning cut, resulting in thick compact growth and a loss of natural form, such as a formally pruned hedge. Sometimes ornamental shrubs along a foundation overgrow their planting space and are rejuvenated by heading to within 12 inches of the ground. Many broadleaf shrubs such as burford holly, ligustrum, abelia and crape myrtle tolerate this type of pruning. When we prune hedges, this type of pruning is often used.

Thinning, removes an entire shoot or limb to its point of origin from the main branch or lateral. Some shoot tips are left uncut; so, apical dominance is maintained. Thus, new growth occurs at the undisturbed shoot tips while lateral bud development and regrowth is suppressed.

Thinning is the least invigorating type of pruning cut and provides a more natural growth form of plants. Important in maintenance pruning, thinning cuts are used to shorten limbs, to improve light penetration into plants and to direct the growth of shoots or limbs. Thinning is the best form of pruning.

Thinning 

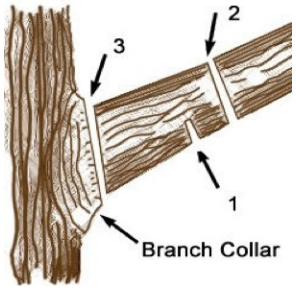
When pruning hedges, plants should be pruned so the bottom of the hedge is wider than the top. This allows for better light penetration and growth at the bottom of the plant.



a. Poor

b. Good

When pruning larger limbs, take special care not to damage the bark. You will need to make three separate cuts. The first cut is about ¼ of the way thru the limb, on the underside about a foot from the trunk or branch. The second cut is then made on top of the branch a few inches further out than the first cut. The final cut is done to remove the stub, being careful not to damage the branch collar.



Healing naturally follows pruning. It starts in the cambium, a thin layer of cells between the wood and bark. For fastest healing, prune close to the main branch without injuring the bark ridge or branch collar areas. Leaving a stub will slow healing and invite decay. Pruning paints are cosmetic and do not to promote healing of the pruned area. Do not use.

When pruning conifers, care must be taken to promote new growth. Plants such as junipers and other needled evergreens only produce new growth from young immature wood. Pruning into heavy older wood seldom promotes new growth. On conifers, such as pines, care must be taken to prune during the candle stage of growth. Pruning 1/3-1/2 of the candle promotes new shoot development and allows the plant to growth thicker.

Rejuvenation pruning allows an overgrown or unsightly shrub to gain new life by cutting all the stems and branches down to within a few inches of the grown. The type of pruning works great with broadleaf evergreen shrubs such as hollies, ligustrum or loropetalums, as well as deciduous shrubs such as forsythias. This type of pruning is not for needled evergreen plants such as junipers as new growth will not rebound from cuts deep into woody branches.

Pruning Timing

Many woody ornamentals are pruned according to their date of flowering. Spring-flowering plants, such as azalea or forsythia, normally are pruned after they bloom. Pruning spring-flowering shrubs during the dormant season will remove flower buds formed the previous fall. Summer-flowering plants generally are pruned during the dormant winter season. If plants are not grown for their flowers, the best time for pruning is during the dormant winter season before new growth begins in the spring. Avoid heavy pruning during the late summer and fall because regrowth may occur and make the plants more susceptible to cold injury.

Some plants bleed heavily after pruning. Bleeding is unsightly but not usually harmful. Trees subject to bleeding should be pruned in the late spring or early summer when leaves are on the tree. Actively growing leaves tend to reduce the amount of bleeding from pruning cuts and allow the cuts to heal more quickly. Plants that bleed readily include willows, birches, maples, beeches and dogwood.

Prune After Flowering

Azaleas
Rhododendrons
Star Magnolia
Dogwood
Lilac
Honeysuckle
Hydrangea
Viburnum
Spiraea
Flowering Pear
Oakleaf Hydrangea
Quince
Flowering Cherry
Pyracantha
Forsythia
Climbing Roses
Loropetalum
Indian Hawthorn

Prune Before Flowering

Floribunda Roses
Grandiflora Roses
Landscape Roses
Barberry
Hibiscus
Hydrangeas
Camellia
Tea Olive
Vitex
Abelia
Nandina
Crape Myrtle