PRUNING GUIDE

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Minimize Pruning Needs with Proper Plant Selection

Unfortunately, plants are frequently placed in the landscape according to their current size and shape, not the size which the plant is likely to attain in five or more years.

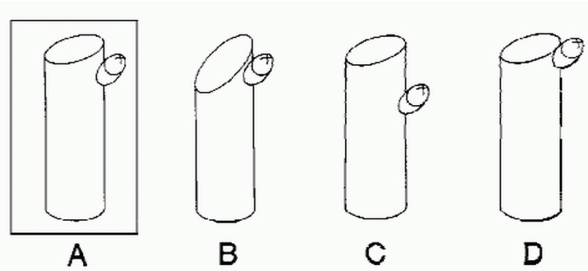
There are four reasons for pruning a plant:
1) to affect flower or fruit production
2) to direct the growth and shape of the plant
3) to change the look of the plant (e.g. standard, topiary, espalier)
4) to promote plant health.

1) **Influence Flowering and Fruit Production**

Larger fruit on certain species can be produced by selectively removing flowers or developing fruits. Those remaining will be larger. Light pruning helps to maintain annual flowering and fruiting on fruit trees. Severe pruning on plants which flower on current season's growth such as crape myrtle will generally stimulate vegetative growth and produce fewer, but larger flower clusters. Pinching new vegetative growth during the growing season will stimulate growth of lateral shoots which on species which flower terminally (e.g. azalea, cassia, crape myrtle) will increase the number of blossoms produced. Remove developing seed heads on crape myrtle to promote a second and perhaps a third flower display.

2) Control Plant Size

A common objective of pruning is to maintain or develop a desired size or form. Many compact and dwarf shrubs are now available. Selective pruning can shape plants or produce either a thin or thick canopy. A thinner canopy edge will allow more light penetration and help keep interior leaves on the plant. Root pruning can be used to slow plant growth, producing a more compact plant. Prune one half the root system, wait 4-6 weeks, then prune the other half. Root pruning should be scheduled so roots will be watered thoroughly to keep the soil moist for 4-6 weeks following root pruning.



Proper pruning angle. "A" is a correct cut, "B" is too slanted, "C" is too far from the bud, "D" is too close to the bud.

3) Control Plant Form

Plants can be pruned into different shapes such as balls, squares, rectangles or animal figures to create special effects. Topiaries can be grown by planting a small-leaved plant such as boxwood, yaupon holly or natal plum and training the plant into a specific form. Another technique utilizes a wire mesh frame which is packed tightly with

sphagnum moss. Appropriate plant species including begonias, ivy and creeping fig can be planted in the sphagnum, forming a fully grown topiary in several months to two years.

The practice of growing plants against a wall (espalier) or on a trellis requires frequent pinching and pruning. Plants trained in this manner are specimen plants and not all plants are adaptable to this pruning technique. Pyracantha, sea grape, fatshedera (tree ivy), magnolia, yaupon holly, loquat and others make excellent espalier plants.

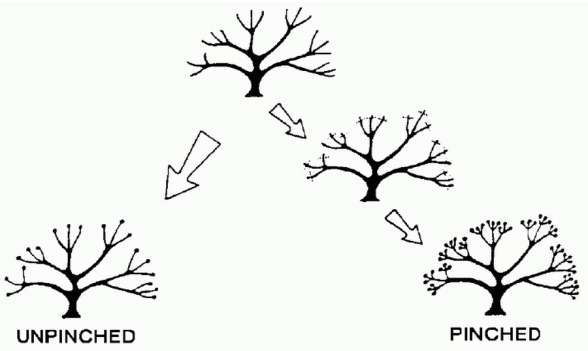
Plants which many consider as large shrubs such as photinia, wax myrtle and pittosporum can be trained into small trees (standards) by gradually removing over a period of 1-3 years, all the foliage and small branches from the lower portion of one or more stems. Small branches left along the lower trunk will build trunk caliper and create a sturdier tree. The longer they remain on the trunk, the thicker and stronger the trunk becomes.

4) **Maintain or Improve Health or Vigor**

Removal of dead, dying or damaged branches and diseased and insect infested plant parts is an effective way to limit the spread of decay, disease and insects to other portions of the plant or to neighboring plants. For example, if several branch tips are infested with aphids or scale, prune and discard the affected shoots. This can be an effective alternative to spraying insecticides if the infestation is small and localized. Weekly checking is often necessary to detect a disease or an infestation in the early stages.

When to Prune

Trees and shrubs can be lightly pruned anytime. To minimize reduction of next year's flowers, prune spring-flowering plants such as azaleas, spireas, trumpet trees and dogwoods in late spring before the flower buds set for the next season. These plants set their flower buds on the previous season's growth and the buds over winter on this older growth. For example, dogwoods and azaleas form flower buds in July for the following year's flower display. Pruning or pinching between the end of the flower display and late spring would not reduce the number of flower buds set. Pinching the new shoots on azalea anytime from several weeks after they begin elongating through May will encourage lateral branching. Each of these laterals is likely to develop a flower bud. Thus the pinched plant produces many more flowers the following year, than an unpinched plant. Pruning between July and the flower display would remove flower buds and reduce the flower display but should not affect the health of the plant.



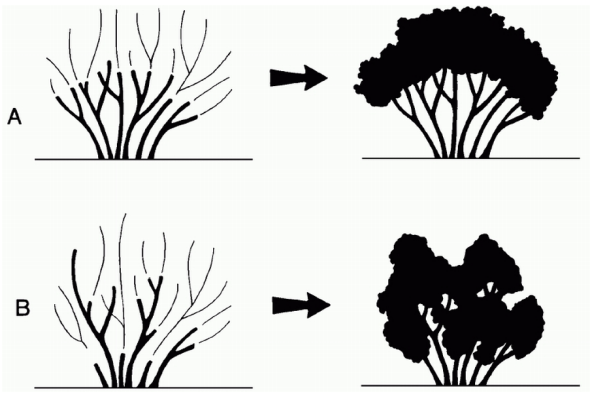
Plants that produce flowers on current season's growth such as abelia, crape myrtle, hibiscus and rose are usually pruned while dormant or just before the spring growth flush. Developing shoots can be pinched to encourage lateral branching which will enhance the flower display. Moderate to severe pruning may encourage production of fewer but larger blossoms or blossom clusters.

To encourage rapid shoot development and greatest overall plant growth, prune just prior to the first spring growth flush. To retard growth for maximum dwarfing effect, prune just after each growth flush. Late summer

pruning may stimulate an additional flush of shoot growth on species which flush several times each year. These shoots could be damaged by an early frost.

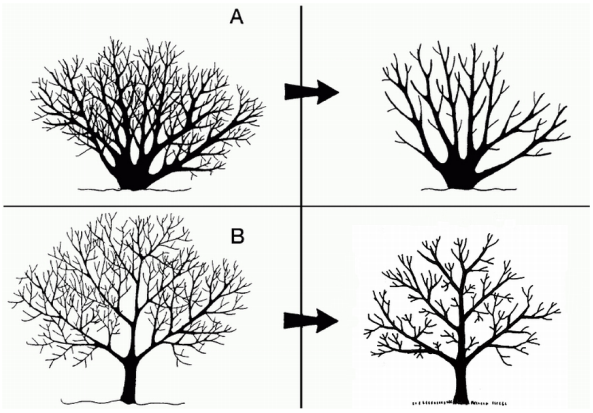
Late fall and early winter pruning can stimulate new growth, particularly during a mild period during the winter. These succulent stems are not cold hardy and can be easily damaged, even by a light frost. Low winter temperatures can also cause cambium damage near pruning cuts, even if growth is not stimulated by pruning. This is particularly true of plants which are marginally hardy. If in doubt about cold susceptibility, it is best to delay heavy pruning to just before growth begins in the spring.

Heading is the selective cutting of terminal ends of twigs or young branches back to an axillary bud or node. This technique produces a shorter shrub. However, new growth is typically vigorous and upright, developing from two to several buds just behind the pruning cut. The new foliage may be so thick that it shades the lower growth forming a top-heavy plant. This can be avoided in shrubs by heading shoots to several different heights



(A) Heading all shoots to the same height produces a leggy, top-heavy shrub. (B) Heading shoots to several different levels produces a more natural, fuller-looking shrub.

Thinning is the complete removal of branches back to lateral branches, the main trunk, or in shrubs, to the ground. Thinning gives a plant an open appearance and can encourage new growth inside the crown depending on how the plant is thinned. If thinning is heavy, interior sprouts will develop. If the plant is lightly thinned, interior shoots are not likely to develop. This technique is used primarily on shrubs to make the canopy appear more open and see through. It contrasts to hedging or heading to the same spot on all branches which gives a shrub a manicured, controlled appearance.



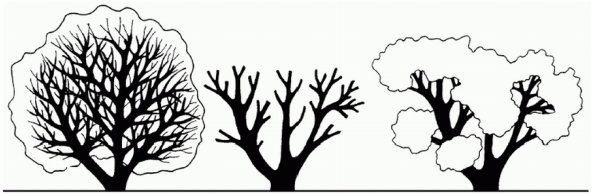
How To Prune Shrubs

The first step in pruning a shrub is to remove all dead, diseased, or injured branches. Pruning shears and saws can be dipped in a weak alcohol solution (1 part to 9 parts water) to prevent spread of disease between plants. Remove branches that cross or touch each other and those which look out of place. If the shrub is still too dense or large, remove some of the oldest branches. Head back excessively long branches to a bud or lateral branch that is 6 to 12 inches below the desirable plant height. If the shrub is 2 to 3' too tall, heading and thinning may be desirable. Cut each branch separately to different lengths with hand pruners. This will maintain a neat informal shrub with a natural shape. Plants sheared into various geometric shapes produce a formality not suitable for many modern, natural landscapes. See the following section on hedge pruning for a discussion of formal pruning.

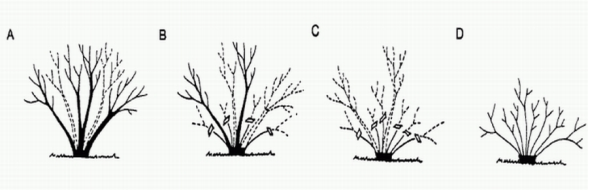
A properly pruned shrub is a work of art and beauty and does not look as if it has been pruned. Pruning cuts should not be visible, but located inside the plant, covered up by remaining foliage.

Rejuvenation of Shrubs

Rejuvenation is a drastic method of pruning old shrubs that have become much too large or have a large amount of non-flowering wood. On single-stem shrubs such as ligustrum and gardenia, rejuvenation is carried out over a period of 2-3 years by severe thinning out to the basic limb framework. One-third to one-half of the old growth is removed each year.



Multiple stem shrubs are rejuvenated by cutting back all stems at ground level over a period of 3 years (Figure 14). Remove 1/3 of the old, mature stems the first year. The second year remove 1/2 of the remaining old stems and head back long shoots growing from the previous year's pruning cuts. The third season remove the remaining old wood and head back the long new shoots.



Rejuvenation of multiple stem shrubs. (A) First year, remove 1/3 of old, mature stems near ground level. (B) Second year, remove 1/2 of the remaining old stems and head back long regenerated shoots from last year's growth. (C) Third year, remove the remaining old stems and head back the long new shoots. (D) Growth at the end of the third season (rejuvenated shrub).

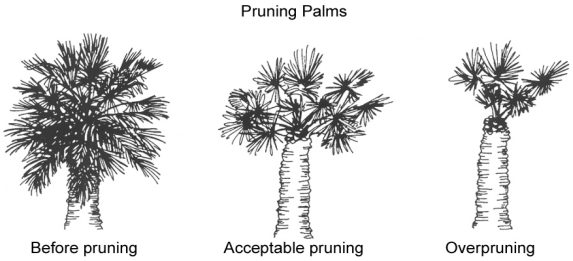
The best time for rejuvenation is in late winter or early spring, just before growth begins. Large, old shrubs should not be rejuvenated during late summer, as new growth will be stimulated and possibly killed by cold weather in the winter.

Pruning cane-type shrubs such as nandina and mahonia is best done on a 2 or 3-year cycle. The tallest canes are pruned to a stub 3"-6" above the soil line during the first spring, just as growth begins. By the second spring, last year's medium sized canes have grown to become tall canes and should be cut back to a 3" stub. Canes from the first year's pruning have already begun to grow and are one to three feet tall by now. In the third spring, the canes which were the shortest in the first spring are now fairly tall and can be cut back. In this way, there is always

foliage near the ground and the shrubs can be kept from becoming leggy. Cut nandina canes generally will not flower during the growing season following pruning.

Pruning Palms

Care must be taken when pruning palms not to cut or otherwise injure the terminal bud or the whole tree will die. Removing green fronds is not needed.



It is rarely necessary to remove green leaves from a palm. However, if you wish to do so, only remove those drooping below an imaginary horizontal line drawn through the bottom of the canopy (center). Growth will be slowed and the palm can be damaged and attract pests and diseases when green leaves are removed from above this imaginary line (right).

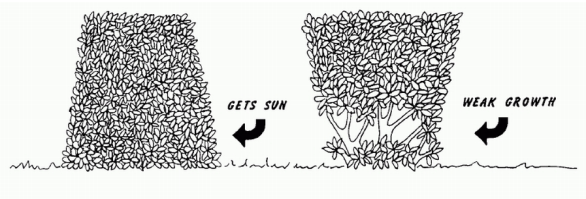
Old leaves that persist on palms such as the Washington palm can be removed, as they often harbor insects and rodents and may become a fire hazard.

When palms with large, heavy fronds shed their heavy leaves, they can damage property and injure people. If they are growing where falling leaves may be hazardous, remove leaves before they drop.

Hedge Pruning

The method of pruning hedges depends on the type of hedge desired. Informal hedges generally consist of a row of closely planted shrubs which are allowed to develop into their natural shape. Annual pruning consists of thinning and heading just enough to maintain desired height and width.

The desired appearance of a formal hedge is a hard outline of foliage from the top of the hedge to the ground. Two important factors to remember when pruning formal hedges are (1) hedges should be clipped while the new growth is green and succulent and (2) plants should be trimmed so the base of the hedge is wider than the top. Hedges pruned with a narrow base will lose lower leaves and branches because of insufficient light. This condition will worsen with age resulting in sparse growth at ground level and an unattractive hedge which does not give desired privacy.



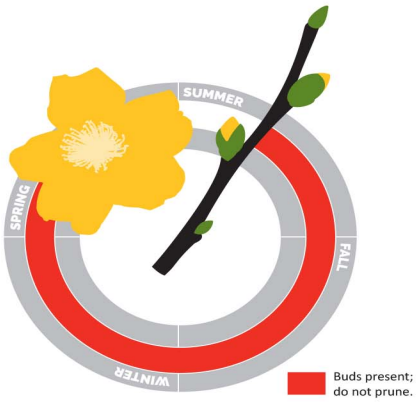
Flowering hedges grown formally should be sheared after they have bloomed since more frequent shearing reduces number of blooms. If the blooms are of secondary importance, pruning may be conducted at any time.

When do I prune a shrub?

The answer to this depends on whether the shrub in question blooms on old wood or on new wood.

Old Wood

Shrubs that bloom on old wood create their flower buds for the next year almost as soon as they finish blooming during the current year. Shrubs that bloom on old wood have flower buds present for most of the year.



Plants that bloom on old wood should only be pruned immediately after they flower:

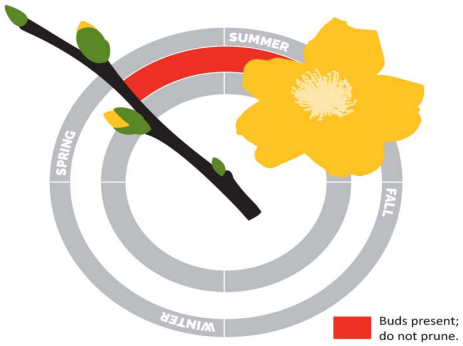
- Azalea
- Deutzia
- Elderberry
- Forsythia
- Lilac
- Loropetalum
- Ninebark
- Pearl-bush
- Quince
- Spirea (blooms on new wood, but prune after flowering for best foliage display)
- Weigela

Generally speaking, the earlier in spring a plant blooms, the more likely it flowers on old wood.

If you are willing to forgo flowers for a year, it's okay to prune shrubs that bloom on old wood in spring.

New Wood

Shrubs that bloom on new wood create their flower buds for the year after new growth has begun in spring. Shrubs that bloom on new wood have flower buds present only during the growing season.



Plants that bloom on new wood may be pruned in spring:

- Bluebeard
- Butterfly bush
- Coral berry
- Diervilla
- Smooth hydrangea
- Panicle hydrangea
- Potentilla
- Red-twig dogwood (blooms on old wood, but best pruned in early spring for longest recovery period)
- Rose of Sharon
- Rose

Try to time pruning such plants so you do it just as the new growth is beginning to emerge on the stems – this allows you to see exactly where healthy new growth is occurring.

Special Cases

- Reblooming plants like Bloomerang® lilac and Bloom-A-Thon® azalea flower on both old wood and on new wood – if they require pruning, the best time to do it is immediately after their spring bloom.
- Evergreens like arborvitae and boxwood are best pruned in spring, after new growth has flushed out.
- Dead wood can be removed any time. Branches that cause a hazard to people, pets, or property should be removed promptly.

Avoid Pruning

For best performance, it's best to avoid pruning the following plants, except to remove dead wood in spring:

- Bigleaf hydrangea
- Mountain hydrangea
- Oakleaf hydrangea
- Rhododendron
- Viburnums grown for their berries
- Winterberry holly

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