

PRUNING DECIDUOUS SHRUBS

In many landscape designs, shrubs are the unsung heroes, filling a critical role balancing expanses of turf and large, dominating trees.

These special plants have their own requirements for care, which include regular pruning to ensure the continued health and vigor of the plant. This article examines some of the techniques and timing involved in the pruning of deciduous shrubs.

Plants That Flower On Old Growth	
<i>Abeliophyllum</i> , abelia-leaf	<i>Amelanchier</i> , serviceberry
<i>Calycanthus</i> , sweetshrub	<i>Caragana</i> , peashrub
<i>Cercis</i> , redbud	<i>Chaenomeles</i> , quince
<i>Chionanthus</i> , fringetree	<i>Cornus</i> , dogwood
<i>Corylopsis</i> , winter-hazel	<i>Cotoneaster</i> , cotoneaster
<i>Crataegus</i> , hawthorn	<i>Daphne</i> , daphne
<i>Deutzia</i> , deutzia	<i>Enkianthus</i> , enkianthus
<i>Euonymus</i> , euonymus	<i>Exchorda</i> , pearl-bush
<i>Forsythia</i> , forsythia	<i>Fothergilla</i> , fothergilla
<i>Illex</i> , holly	<i>Kolkwitzia</i> , beautybush
<i>Laburnum</i> , laburnum	<i>Lindera</i> , spicebush
<i>Lonicera fragrantissima</i> , fragrant honeysuckle	<i>Myrica</i> , bayberry <i>Parrotia</i> , Persian parrotia
<i>Magnolia</i> , magnolia (deciduous shrub species)	<i>Philadelphus</i> , mock orange <i>Mahonia</i> , Oregon-grape
<i>Photinia villosa</i> , oriental photinia	<i>Pieris</i> , pieris
<i>Prunus</i> , cherry, almond	<i>Pyracantha</i> , firethorn
<i>Rhododendron</i> , rhododendrons & azaleas	<i>Rhodotypos</i> , jetbead
<i>Ribes</i> , currant	<i>Kerria</i> , kerria
<i>Spiraea</i> , spirea (spring flowering species)	<i>Syringa</i> , lilac <i>Viburnum</i> , viburnum
<i>Weigela</i> , weigela	
Plants That Flower On New Growth	
<i>Abelia</i> , glossy abelia	<i>Aesculus parviflora</i> , bottlebrush buckeye
<i>Albizia</i> , silk-tree	<i>Buddleja</i> , butterfly-bush
<i>Callicarpa</i> , beautyberry	<i>Caryopteris Diervilla</i> , bush-honeysuckle
<i>Hydrangea arborescens</i> , smooth hydrangea	<i>Hydrangea paniculata</i> , panicle hydrangea
<i>Hydrangea quercifolia</i> , oakleaf hydrangea	<i>Hypericum</i> , St.-John's-wort

<i>Itea</i> , sweetspire	<i>Lavandula</i> , lavender
<i>Lespedeza</i> , bushclover	<i>Lonicera japonica</i> , Japanese honeysuckle
<i>Magnolia virginia</i> , sweetbay magnolia	<i>Perovskia</i> , Russian-sage
<i>Potentilla</i> , shrubby cinquefoil	<i>Rosa</i> , shrub roses
<i>Spiraea</i> , spirea (Summer flowering species)	<i>Symphoricarpos</i> , coralberry

TOOLS AND TECHNIQUES. A few basic tools are required for deciduous pruning: bypass pruners for shoots and twigs up to ½-inch wide; triple-edged hand saws; loppers for branches up to 2 inches wide; and hedge shears for shearing purposes only. Keep pruning tools clean, sharp and in good working order. Make clean cuts and avoid bark tears.

Now, let's look at the various pruning methods commonly used on shrubs. Each method relies on specific techniques, timing and a knowledge of several characteristics possessed by each shrub. Each method has its own merits in the right place at the right time and, most importantly, on the right shrub.

Renewal: This involves the removal of 1/3 of the oldest wood near ground level. Use this method on multi-stemmed, upright shrubs. Remove less than 1/3 of the wood on plants that have been neglected, over-pruned/sheared or those under severe stress. Renewal pruning is not recommended for some single-stemmed shrubs, including some viburnums, daphne, Japanese pieris, burning bush and serviceberry. The key is to be sure the shrub can regenerate new shoots.

Rejuvenation: This involves removing all stems back to near ground level. This technique is great for old, neglected, misshapen, deciduous shrubs. It's not suitable for some plants, so contractors need to consult reference manuals. Once a plant has been rejuvenated, begin renewal pruning. Abelia, barberry, cotoneaster, shrub dogwoods, forsythia, honeysuckle, spirea, shrub lilacs and weigela are good candidates for rejuvenation.

Shearing: This is used for formal hedges and topiary. Shape hedges wider at the base to prevent the shading of the lower branches. Prune a current season's growth after a flush of growth (usually late spring). Light touch-up shearing can take place again around mid-summer as growth dictates, but avoid late summer shearing.

Shearing should be reserved for landscape designs that warrant it and on tolerant plants. Unfortunately, most deciduous shrubs are not suitable for shearing since the results can be devastating. The resulting growth and energy required to seal over pruning wounds can be at the expense of a plant's ability to overcome stress.

Developmental/Shaping: This technique involves removing branches and twigs at their

point of origin vs. cutting the shrub down to size (shearing). This provides a more natural approach to single-stemmed shrubs. The goal is to thin out the interior of the plant and maintain a natural appearance (thus the importance of knowing the plant's natural habit). Use thinning cuts to remove the oldest and largest branches without compromising the natural shape of the plant.

Regardless of the size of the branch, avoid leaving stubs. Cut branches back to their point of origin or to within ¼-inch of a living bud. You can control the direction or length of stems and twigs through this selective pruning. Keep in mind the natural habit of the plant. As a plant develops, shaping can be accomplished with relatively few cuts. Shaping can also serve as a natural alternative to shearing for altering the width or general shape of a plant slightly.

With shaping, be selective in your cuts as you visualize the mature size and habit of the plant over the course of several years, and selectively prune the shrub to keep it a manageable size. This will leave the plant with a more natural appearance.

Keep In Mind When Pruning Branches ...

1. Remove dead or near-dead branches regardless of their location. Prune back to a healthy side branch or bud. Avoid leaving stubs.
2. Prune diseased, insect-infested or broken branches.
3. Prune crossing, rubbing or competing branches.
4. Prune branches that detract from the natural shape of the shrub.
5. Proceed with an appropriate pruning method.

MAKING THE CUT. In spite of the assortment of tools, methods and terminology, deciduous shrub pruning requires only two types of cuts - thinning and heading.

Thinning cuts remove entire branches, either at the base of a plant or at a side branch. Heading cuts shorten a branch or stem, usually with a cut back to the next lower bud (node). Since plants respond differently to either of these cuts and because of the wide variety of plants found in most landscapes, knowing when and how to use them becomes even more important.

Common deciduous shrub pruning methods include developmental/shaping, renewal, rejuvenation and shearing. They are not the only methods, but they represent the basic deciduous shrub pruning resources suitable for most landscape maintenance programs.

To use these methods effectively, contractors must learn the techniques of each method and at what time of year they should be performed. It is also important to know what methods are suitable for each plant. Since most landscapes contain a variety of plants, contractors have to develop a variety of pruning strategies in order to care for each particular plant. Also, depending on the reasons for pruning, several pruning techniques may be required over the course of a plant's life.

RESPONSES TO PRUNING. Pruning is a wounding process that causes plants to react in a

variety of ways. Contractors must anticipate how a plant will react to wounds caused by the various pruning methods. To do this, consider how plants grow.

Most deciduous shrubs produce new growth at the outermost (terminal) buds. Terminal buds produce hormones (auxin) that direct the growth of lateral buds further down the branch. When the terminal bud is removed, lateral buds can be stimulated to grow as a result.

On some deciduous shrubs, a heading cut encourages aggressive top growth, which can have a tremendous impact on the natural habit of the plant. Sometimes the altered habit and growth are desirable, as with formal hedges or topiary. This type of growth is usually not desired if a more natural appearance is the goal. If the heading cuts are not repeated yearly following each flush of growth, the plant eventually develops a top-heavy, "leggy" appearance with little foliage near the base of the plant.

When entire branches or stems are removed with a thinning cut, the result is much different. The result is new growth near the base or interior of the plant that will help maintain the natural appearance of the plant without excessive top growth.

WHY PRUNE? To determine what pruning method is best for a particular plant, contractors must decide why they are pruning. Obviously, pruning is for size reduction. But contractors must also pay attention to plant health, development and aesthetics.

Pruning should begin soon after planting to provide the best chance of maintaining the shrubs at a desirable height and desired appearance. Often, pruning is not considered until a plant becomes too large.

Pruning should also play a supportive role in plant health. As some deciduous shrubs mature, the oldest wood can become more susceptible to disease or insect infestations. Periodic removal of the oldest wood provides an opportunity for growth of healthy, young wood. This young wood can also increase flower fruit and ornamental bark features that can diminish on older wood.

Certain characteristics inherent to each plant impact the recommended pruning method. These characteristics include plant habit and branching structure, when the plant flowers, whether it flowers on new or old wood, ability to generate new growth, size and rate of growth, and the purpose of the plant in the overall landscape design.

Plant health, previous pruning, growing conditions and plant maturity can influence a plant's habit. Determine how the plant grows naturally and compare that to how it is growing now. Try to determine the plant's natural structure. Multi-stemmed shrubs have many branches originating from the base near the ground. Single-stemmed plants usually have a central main trunk structure with branches arising from one to three main stems. The branches sometimes originate close to the ground, but upon examination, there will be a central main trunk. Some mounded plants offer slight variations of the two.

Know when the plant flowers and whether the flowers appear on new wood. Most spring-

flowering shrubs flower on wood produced the previous year. Many summer- and fall-flowering shrubs produce buds on the current season's wood. This will help determine what wood to cut and prevent the removal of developing buds.

The mature size of the plant is important to know in order to help identify potential large plant/small site conflicts. Many low growing plants only need occasional touch-up pruning. If growing in an appropriate site, large shrubs may only require occasional pruning. Anticipating a plant growing too large for a particular site provides more pruning options.

Evaluate plant aesthetics and look for a decrease in vigor, which is often indicated by a decrease in plant growth, flowers or fruit production.

Then evaluate plant health and locate diseased or dead wood. Pruning can encourage new, vigorous shoots with improved flower production and increased disease and insect resistance.

Also, the intent of the entire landscape design must be taken into consideration, especially the relationship of the plant to the surrounding plants and structures. Not all shrubs are intended to be pruned small or in formal hedges.

TIMING IS EVERYTHING. Knowing when to prune is crucial. It requires an awareness of a plant's seasonal cycle. In summer, healthy plants produce energy through photosynthesis. Most of this energy is stored and used the next spring as the plants grow, leaf out and flower. At this time - usually early spring to early summer - stored energy levels are at their lowest, leaving the plant a bit vulnerable until the newly emerged leaves begin to produce more energy.

Knowing when a plant has high or low stored energy reserves is crucial in determining what time of year to prune. Timing is also dependent upon what method of pruning and what type of cuts will be made.

Dormant pruning: The dormant season is anytime between when the leaves fall and when new growth begins the following spring. This is considered the best time for most types of pruning, except for shearing. Dormant pruning makes sense because a plant's energy reserves are capable of generating new growth the following spring. Also, it's easier to view the branching structure and framework during dormancy.

Hold off pruning until mid-winter in colder climates. A drawback to dormant pruning is a reduction in flowers on early spring bloomers.

Spring/early summer pruning: This method is recommended for some plants, but dormant pruning is preferred for overall plant health. Pruning after flowering works well with early spring-flowering shrubs that are in good health. But beware of giving the flower effect precedence over the structure and health of the plant. A minimal decrease in flower production for renewal pruning is a small price to pay for plant health.

Late summer to fall: Other than light touch-up work, pruning is not recommended during late summer to fall. This is especially true for total rejuvenation pruning. It can encourage new growth that won't harden off in time for winter.