MASTER GARDENER
COLORADO STATE UNIVERSITY
EXTENSION

CMG GardenNotes #616

Pruning Flowering Shrubs

Why Prune?

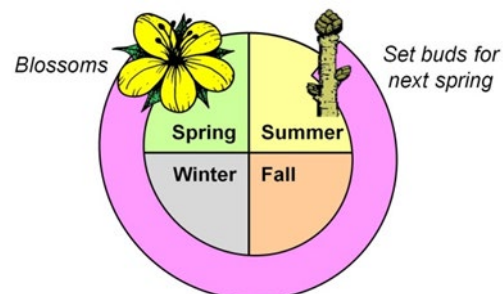Pruning has a major influence on a shrub's flowering habit, shape, size, and pest problems.

Prune to Encourage Flowering

Pruning has a major influence on shrub flowering. Over time, an unpruned flowering shrub becomes woody, with little new growth to support flower bud development.

Spring-flowering shrubs bloom on one-year-old wood (new twigs that grew the previous summer). The flower buds develop from midsummer through fall, overwinter, and bloom the following spring. In the early spring, flowering shrubs can be thinned before flowering or growth starts. [**Figure 1**] Thinning or rejuvenation pruning can also be done right after blooming to maximize the next season's flowers. Pruning in the fall and winter will remove wood containing the flower buds, reducing blooms the following spring. [**Figure 2**]

Spring-flowering shrubs include forsythia (*Forsythia* spp.), Nanking cherry (*Prunus tomentosa*), quince (*Chaenomeles* spp.), bridal wreath and Vanhoutte spireas (*Spiraea prunifolia*, *S. pleniflora* 'Plena' and S. x *vanhouttei*), viburnum (*Viburnum* spp.), beautybush (*Kolkwitzia amabilis*), lilac (*Syringa* spp.), honeysuckle (*Lonicera* spp.), peashrub (*Caragana* spp.), deutzia (*Deutzia* spp.), and weigela (*Weigela* spp.).

Figure 1. Spring-flowering shrubs bloom from buds that developed on new wood the previous summer.
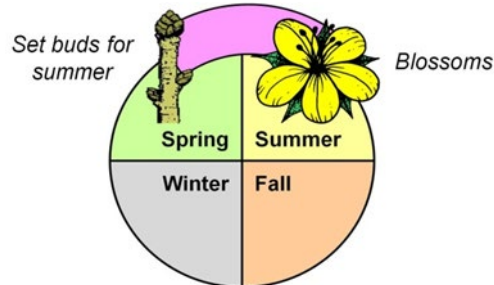
Figure 2. Fall shearing of this spring-flowering lilac removed flower buds on the lower section of the shrubs.

For spring-flowering shrubs, it is recommended to "deadhead" spent blooms (remove flowers after they fade). While time-consuming, deadheading conserves the plant's energy, which would otherwise be spent on seedpod and seed development. For many flowering shrubs, the spent flowers and seedpods are not attractive and can be removed for aesthetic reasons (lilacs).

Summer-flowering shrubs bloom on new wood that grew earlier in the current growing season. Summer-flowering shrubs can be pruned by thinning or rejuvenation pruning in the early spring before growth starts. [**Figure 3**]

Summer-flowering shrubs include most butterfly bush (*Buddleia* spp. and *Cassia* spp.), blue mist spirea (*Caryopteris* x *clandonensis*), Hancock coralberry (*Symphoricarpos* x *chenaultii* 'Hancock'), mock orange (*Philadelphus* spp.), potentilla (*Potentilla* spp.), Bumald and Japanese spirea (*Spiraea* x *bumalda* and *S. japonica),* Annabelle and Peegee hydrangea (*Hydrangea arborescens* 'Annabelle' and *H. paniculata*), shrub althea or rose of Sharon (*Hibiscus syriacus*), snowberry (*Symphoricarpos albus*) and St. John's wort (*Hypericum* spp.).

Figure 3. Summer-flowering shrubs bloom from buds which developed on new wood that grew earlier in the current growing season.
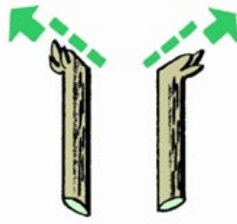

Removing older canes of flowering shrubs by thinning also allows for better sunlight penetration into the shrub. This results in better flowering throughout the shrub, instead of flowers just at the top where sunlight is plentiful.

On shrubs noted for their bark color, like red-twig dogwood (*Cornus sericea*), the new shoot growth has a more brilliant color. Routine pruning by thinning at the base encourages new shoots which have the desired red color.
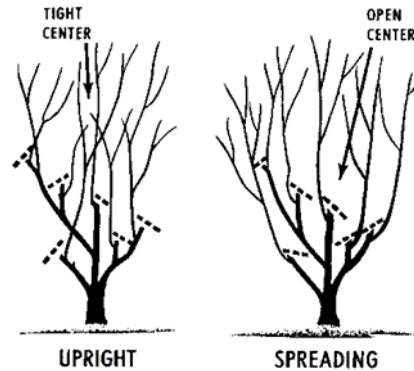
Prune to Direct Shape

Shaping is another reason for pruning shrubs. Shape can be managed to some degree by pruning to side buds or branches growing in the desired direction. While pruning can provide some control over size, it is not an effective method to keep a large shrub in a small space. Where shrubs have overgrown their space, consider replacing the plants with smaller cultivars or other species. [**Figures 4** and **5**]

Figure 4. Shape can be managed to some extent by pruning to buds and branches growing in the desired direction of growth.

Figure 5. Pruning to inward growing buds or branches results in narrower shrubs. Pruning to outward-growing buds or branches results in wider shrubs. [Line drawing by USDA]

Prune to Manage Pests

Pruning is a management technique for some insect or disease problems. For example, removing the older wood in lilac can reduce oystershell scale and borer problems. Thinning a shrub to increase air circulation reduces the incidence of powdery mildew and leaf spot diseases.

Pruning Methods for Flowering Shrubs

The primary objective when pruning flowering shrubs is to encourage new (flowering) growth from the base. This is best accomplished by thinning at the base, or rejuvenation.

Branch-by-Branch Shaping

Branch-by-branch shaping involves shortening the length of excessively long branches by cutting them back one-by-one. Cuts are made back in the shrub, leaving branches at varying lengths. Avoid making cuts at a uniform "edge," creating a rounded ball. Make cuts at appropriate branch unions (crotches) or buds. [**Figure 6**]

Branch-by-branch shaping is a slow process, but this method maintains a more naturally shaped shrub and does not significantly encourage new growth.

Figure 6. With branch-by-branch shaping, long branches are cut back into the shrub, giving a more natural shape. Avoid making cuts at a uniform "edge," creating a rounded ball.
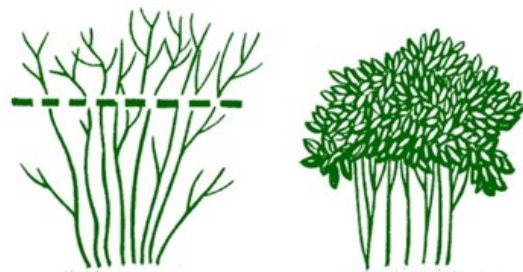
Shearing to Shape

Shearing shrubs to round balls or other desired shapes is a common pruning technique because it is quick and easy. However, sheared shrubs lose their natural shape, and the rounded "balls" may detract from a more natural, informal landscape design. Shaping spring-flowering shrubs after midsummer removes the new wood with next year's blossoms. In addition, frequent shearing does not encourage new growth from the base, which is needed to promote flowering.

With frequent shearing, the plant becomes thicker and bushier toward the exterior. The thick outer foliage may shade out the interior and lower foliage, and the plant becomes a thin shell of foliage with a woody interior and base. The thin shell of foliage is prone to browning and burning from wind and cold weather. Over time, shrubs that are sheared become woody, with lots of dead branches and few flowers. When shrubs become overly woody from routine shearing, replacement is the best option to refresh the landscape design.
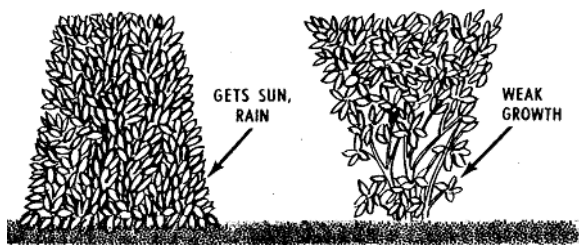[**Figures 7** through **11**]

Figure 7. Flowering shrubs pruned by topping or shearing become woody at the base. [Line drawing by USDA]

Figure 8. Over time, sheared shrubs become woody and contain dead sections. The only treatment at this point is to replace the shrub.

Figure 9. Sheared forsythia in full bloom. Shearing does not encourage new wood with blossoms.

Figure 10. In shearing hedges, maintain the natural shape of the plant. A common mistake is to shape shrubs with a wide top and narrow base. Lack of sunlight shades out lower interior growth, resulting in a woody base. [Line drawing by USDA.]

Figure 11. Properly pruned hedge, wider at the base.

Thinning

One method to encourage shrub flowering is annual thinning. The objective is to **remove one-third of the oldest wood to the ground each year**, which in turn stimulates new, better-flowering growth from the base of the shrub. Thinning is more easily done before growth starts using leafless branches in early spring but can also be done in summer if necessary. This method can be time-consuming and does not work well on twiggy, multi-stem shrubs, like spirea. [**Figure 12**]

Cutting back and thinning an overgrown shrub will not restore its natural, informal form. It will look like an overgrown shrub that has been pruned. Rejuvenation pruning followed by annual thinning is better for overgrown shrubs.

Figure 12. Annual thinning removes one-third of the oldest wood to the base each spring. This encourages new growth from the base, keeping the shrub youthful looking. [Line drawing by USDA.]

Rejuvenation Pruning

Many shrubs can be easily renewed with rejuvenation pruning. The shrub is cut entirely to the ground in the early spring before growth starts. The shrub regrows from roots, giving a compact, youthful plant with maximum bloom. Rejuvenation can have a major effect on size. This method is preferred for many flowering shrubs because it is quick and easy with great results. Initial rejuvenation should be followed by thinning new canes to several strong ones over the next several years. Remove weak cane growth at the base (ground level).

Rejuvenation is typically done no more than every three to five years when a shrub begins to look gangly and woody. It works very well on multi-stemmed, twiggy-type shrubs such as spirea (*Spiraea* spp.), blue mist spirea (*Caryopteris*), *Potentilla*, red-twig dogwood, sumac (*Rhus* spp.), and

hydrangea. (Note: *Caryopteris* flowers best if renewed each spring.) Also use this method to rejuvenate lilac, privet (*Ligustrum* spp.), barberry (*Berberis* spp.), forsythia, flowering quince, honeysuckle, mock orange, flowering weigela, beautybush, many viburnums, elderberry (*Sambucus* spp.), and others.

Limitations:
- Spring-flowering shrubs will not bloom the year of rejuvenation.
- On shrubs with a rock and weed fabric mulch, rejuvenation may not be successful due to decreased root vigor and interference of the mulch with growth from the base.
- Extremely overgrown shrubs with large woody bases may not respond well to rejuvenation pruning.
- Shrubs with many dead branches will not respond well to rejuvenation pruning. As a general rule, if more than one-third of the branches are woody and, without healthy foliage, the shrub will probably not respond. Some shrubs are structurally similar to small trees, with only one or a few primary trunks, including several Viburnum and Euonymus species, and shrubby forms of *Rhamnus* (buckthorn). Do not cut these shrubs to the ground. Prune by thinning branches back to side branches.
- Lilac cultivars grafted onto common lilac rootstocks should not be cut to the ground. Regrowth will be of the common lilac rather than the selected cultivar.

Replacement

Shrubs that have been neglected or repeatedly sheared often become woody with many dead twigs. The best option may be to replace them.

Shrubs can also be overwhelmed by weedy invaders, seeded by birds, squirrels, or wind. For example: Common Buckthorn (*Rhamnus cathartica*), Walnut (*Juglans* spp.), Elm (*Ulmus* spp.).If routine clearing of these invading woody species is not done, the original shrubs may be compromised or lost. Replacement may again be needed.

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