



MASTER GARDENER
COLORADO STATE UNIVERSITY
EXTENSION

CMG GardenNotes #616

Pruning Flowering Shrubs

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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 (twigs that grew new the previous summer). Buds develop in midsummer through fall for the following spring. Pruning in the fall and winter removes flowering wood with buds. Spring-flowering shrubs can be rejuvenated or thinned in early spring before flowering or growth starts [Figures 1 and 2]. Thinning can also be done right after bloom to maximize the next season's flowers.

Spring-flowering shrubs include forsythia (*Forsythia* spp.), Nanking cherry (*Prunus tomentosa*), quince (*Chaenomelea* spp.), bridalwreath and Vanhoutte spireas (*Spiraea prunifolia*, *S. plenaflora* '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.).

On 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. On many shrubs, the spent flowers and seedpods are not attractive (lilacs).

Figure 1. Spring-flowering shrubs bloom from buds that developed on new wood the previous summer.

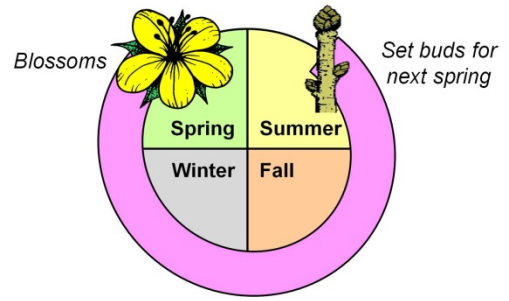


Figure 2. Fall shearing of this spring-flowering lilac removed flower buds on the lower section of the shrubs.

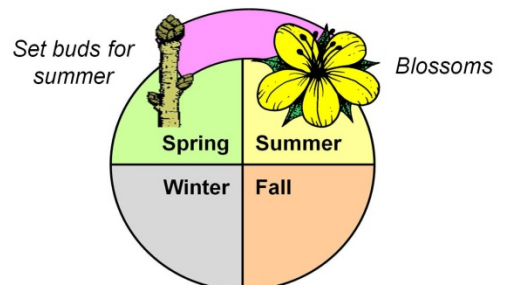
Summer-flowering shrubs bloom on new wood that grew earlier in the growing season. Summer-flowering shrubs are also pruned by thinning or rejuvenation in the early spring before growth starts. [Figure 3]

Summer-flowering shrubs include most butterfly bush (*Buddleia* spp. and *Cassia* spp.), blue mist spirea (*Caryopteris x clandonensis*), Hancock coralberry (*Symphoricarpos x chenaultii* 'Hancock'), mockorange (*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.).

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

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

Figure 3. Summer-flowering shrubs bloom from buds that developed on new wood that grew earlier this growing season.



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.

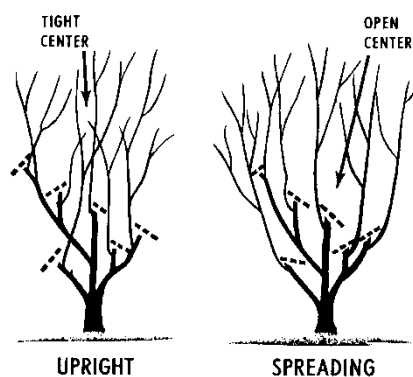
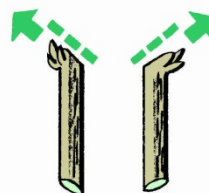


Figure 5. Pruning to inward growing buds or branches results in narrower shrubs. Pruning to outward-growing buds or branches results in wider shrubs. [Line drawing by USDA]

Prune to Manage Pests

Pruning is a management technique for some insect or disease problems. For example, removing the older wood in lilac reduces 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

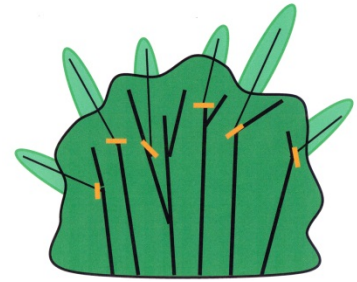
The primary objective in pruning flowering shrubs is to encourage new (flowering) growth from the base. This is best accomplished by thinning at the base, or rejuvenation.

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]

This method maintains a more naturally shaped shrub but does not significantly encourage new growth of flowering wood for maximum bloom. Branch-by-branch shaping is a slow process.

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. Frequent shearing does not encourage new growth from the base, which is needed to promote flowering.

With frequent shearing, the plant becomes bushier on 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 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 7-11]

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

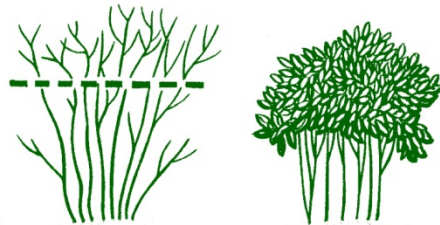


Figure 8. Over time, sheared shrubs become woody with dead sections. The only treatment at this point is to replace the shrub.



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

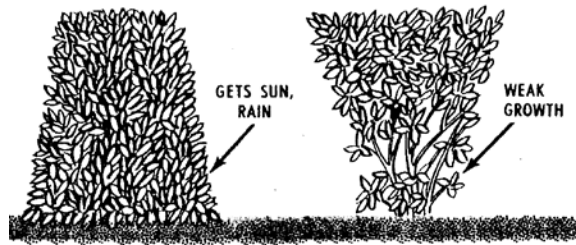


Figure 10. In shearing hedges, maintain the natural shape of the plant. A common mistake is to shape shrubs with a wide top and narrow base. Lack of sunlight shades out lower interior growth, resulting in a woody base. [Line drawing by USDA.]

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 with leafless branches in early spring before growth starts but can also be done in summer. This method is 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 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, *Caryopteris* (blue mist spirea), *Potentilla*, red-twig dogwood, sumac (*Rhus* spp.), and hydrangea. (Note: *Caryopteris* flowers best if renewed each spring.) Also use this method to rejuvenate lilac, privets (*Ligustrum* spp.), barberry (*Berberis* spp.), forsythia, flowering quince, honeysuckle, mockorange, 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 rule of thumb, if more than one-third of the branches are woody, without healthy foliage, the shrub will probably not respond.
- Some shrubs are structurally more like small trees, with only one or a few primary trunks. They include 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 budded onto common lilac rootstocks should not be cut to the ground. Regrowth will be common lilac rather than the selected cultivar.

Replacement

Shrubs that have been repeatedly sheared often become woody and filled with dead twigs. The best option may be to replace them. On many commercial sites, labor issues prohibit routine pruning. When shrubs become overgrown, they are simply replaced as a low-maintenance alternative.

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.

Authors: David Whiting (CSU Extension, retired), with Robert Cox and Carol O'Meara (CSU Extension), and Carl Wilson (CSU Extension, retired). Artwork by David Whiting and USDA; used by permission.

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