



Cooperative Extension

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There are five different species of hydrangea commonly grown in New Jersey and they have different flowers and cultural requirements. The most common hydrangea is the bigleaf hydrangea with blue to pink flowers. It is sensitive to frost and pruning at the wrong time, which will both result in no flowers.

Common Hydrangea Species

Hydrangea macrophylla (bigleaf, hortensia or florists' hydrangea) is most often seen with its spectacular pink or blue flowers. It is used as a garden shrub, in pots by florists, and for fresh or dried flowers. The many cultivars of this species may be divided into mopheads and lacecaps. The mopheads have large balls of flowers. Lacecaps have a center of small non-showy flowers surrounded by an outer ring of showy flowers. For both types, flower color may be shades of white, red or purple in addition to pink or blue. Flower color is determined indirectly by soil acidity. The bluest shades are produced on soils with a pH of 5.0 to 5.5. Aluminum sulfate applications may induce blue flowers. Less acid soil (pH 6.0 to 6.5 or slightly higher) is associated with pink flowers. Typical growth is from 3' to 6' high by up to 10' wide. Bigleaf hydrangea blooms mainly on stems grown the previous year, therefore spring pruning usually results in no flowers. Dead wood should be removed. Frost may kill the potential flowering shoots. *H. macrophylla* is hardy to zone 6 and rarely does well in zone 5. It thrives as a garden plant in seaside communities. *Hydrangea* 'Endless Summer' is a one of the frost resistant cultivars that is less likely to be damaged by late spring frosts and blooms in both spring and summer.

Hydrangea paniculata (panicle or Pee Gee hydrangea) is the largest of the commonly grown hydrangeas, sometimes reaching a height and spread between 10' to 20' with the appearance of a low-branched tree or large shrub. It is one of

most cold hardy hydrangeas. The white or yellowish-white flowers, in 6" to 8" panicles, later change to purplish pink and weigh down the branches. Faded blooms may be pruned to make the plant more attractive. Pruning may also be used to maintain the shape of the shrub. This species flowers on new growth so it may be pruned in late winter. Consider cultivated varieties if planting this species.

Hydrangea arborescens (smooth or wild hydrangea) is native to the eastern United States. This fast growing species may reach a height and width of 3' to 5'. It is sometimes difficult to distinguish from *H. paniculata* as the flower clusters of cultivated varieties may be similar. The leaves of *H. arborescens* are broader and often bigger with long (1" to 3") petioles. *H. paniculata* petioles are 1/2" to 1" long. Some cultivars have been selected with larger flowers.

As *H. arborescens* blooms on current growth it can be pruned in late winter. It may be drastically pruned (to the ground) or pruned only to remove old flower heads. Dried flowers may be used in flower arrangements along with dried *H. paniculata* and *H. quercifolia*.

Hydrangea quercifolia (oakleaf hydrangea) is easy to distinguish by the lobed (oak leaf-shape) leaves. These leaves may develop spectacularly handsome fall colors (red, bronze, purple). The plant typically grows 4' to 6' tall and can become quite wide due to its habit of suckering. The flowers, on last year's growth, may also be spectacular with white florets in panicles over 1' long. Native to the southeastern United

States, this hydrangea grows well in partial to almost full shade. It is winter hardy to zone 5. Cultivars are available that have showier flowers than the species.

Hydrangea anomala petiolaris or climbing hydrangea is a vine that may grow up a tree or building to 50' or more, clinging by its root-like holdfasts. Unlike most cultivated vines it has a three-dimensional effect as branches protrude from the main structure. It has been used to good effect to cover large stumps and rocks, as a ground cover, and will grow as a shrub. Climbing hydrangea is hardy to zone 4. It grows very slowly in the early years after planting and more rapidly when established. It prefers rich, moist but well-drained soil. It is interesting to grow the related Japanese hydrangea-vine (*Schizophragma hydrangeoides*) nearby. This flatter, somewhat shorter vine, blooms later than climbing hydrangea. Both species have large (6"-10" diameter) flat-topped flowers with outer showy sterile florets and inner small fertile florets.

Pruning

If dried flower heads are left on the plants over winter, remove them in early spring, cutting back to the first pair of fat buds found on the stem.

H. arborescens—prune in spring

H. paniculata—when the plant is established it can be cut back in late winter to within 3" of the previous season's growth. In effect the shrub is pollarded and the strong upright branches produced will display the flowers well.

H. quercifolia—no pruning necessary, except to control size

H. macrophylla—prune out dead stems in the spring. Do not remove last year's wood where the flowers will form.

Hydrangea Problems

The most common problem of hydrangeas is failure to bloom. This most often happens to *H. macrophylla* when winter's cold kills last year's growth or over enthusiastic gardeners remove old growth. Choose cultivars of *H. macrophylla* that are suited for landscape use. Hydrangeas received as holiday gifts are often unsuitable for use in the landscape. Also *H. quercifolia* flower buds may freeze. Site the plants in a protected spot in the landscape or provide winter protection. Hydrangeas are considered relatively problem free.

Comparison of Hydrangeas Species			
Cone-shaped flower clusters		Native to US	
<i>H. paniculata</i>	<i>H. quercifolia</i>	<i>H. quercifolia</i>	<i>H. arborescens</i>
Ball-shaped flower clusters		Attractive fall coloration	
<i>H. macrophylla</i> – mophead		<i>H. quercifolia</i>	
Flat-shaped flower clusters		Grows well in shade	
<i>H. macrophylla</i> – lacecap	<i>H. anomala petiolaris</i>	<i>H. quercifolia</i>	
Useful as dried flowers		Multi-stemmed shrubs	
Cut flowers when fully mature; hang upside down to dry.		<i>H. quercifolia</i>	<i>H. macrophylla</i>
<i>H. paniculata</i>	<i>H. quercifolia</i>		
<i>H. arborescens</i>	<i>H. macrophylla</i> – mophead		
Bloom on current growth		May be grown single stemmed	
<i>H. paniculata</i>	<i>H. arborescens</i>	<i>H. arborescens</i>	<i>H. paniculata</i>
Bloom on last year's growth		Sequence of bloom	
<i>H. macrophylla</i>	<i>H. quercifolia</i>	<i>H. anomala petiolaris</i>	<i>H. macrophylla</i>
		<i>H. arborescens</i>	<i>H. paniculata</i>
		<i>H. quercifolia</i>	

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