



**CORNELL  
COOPERATIVE  
EXTENSION OF  
ONEIDA COUNTY**

# HOME GROWN FACTS

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## Hydrangea

One of the most popular shrubs on the market is *Hydrangea macrophylla*, also called bigleaf or French hydrangea. It has either pink or blue flowers. Flower color is determined indirectly by the soil pH, which affects the availability of aluminum in the soil. In acid soils the flowers will be blue; in alkaline soils the flowers will be pink. Aluminum is available to the plant in acid soils. Research has determined that the actual mechanism of color variation is due to the presence or absence of aluminum compounds in the flowers.

For blue flowers, maintain a soil pH between 5 and 5.5. Apply aluminum sulfate or sulfur to reduce the pH to this range when you see new growth emerging in April. For pink flowers, maintain a soil pH of 6 or more by liming your soil.

### Mature Height/Spread

Hydrangeas are deciduous shrubs that grow from 4 to 12 feet in height depending on the variety.

### Growth Rate

The growth rate is quite fast.

### Landscape Use

Bigleaf hydrangeas are effective as single plants, massed or in containers on paved terraces.

### Cultivation

Hydrangeas are easy to grow in well-drained soil, which should contain plenty of organic matter or humus. Bigleaf hydrangea prefers morning sun and afternoon shade. Avoid planting it in hot, dry, exposed sites. Most people buy hydrangeas when they are blooming, but spring or fall is the best time to set them out. For planting, dig a large hole approximately two feet across and one foot deep.

Bigleaf hydrangea responds to several light applications of fertilizer during the growing season. A general-purpose fertilizer, such as 10-10-10 applied at a rate of 2 cups per 100 square feet in March, May and July is suggested. It is not necessary to remove the mulch when fertilizing, but water soon after application to help dissolve the fertilizer and send it into the soil.

Hydrangeas have such big leaves that they can suffer if set out during hot weather. They need plenty of water, so plan to water thoroughly once per week or more frequently. Bigleaf hydrangea should be pruned after flowering so they can develop "old wood" to support blossoms the following summer. Avoid pruning after August 1.



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One of the easiest ways to propagate bigleaf hydrangea is by layering. This is done by digging a trench near the plant and bending a section of limb down into the trench. Use a knife to remove a small ring of outer bark about an inch wide all the way around the limb. Then, cover the limb with soil leaving 6 to 12 inches of the tip growth uncovered. Old established hydrangeas may also be divided in the early spring by using a shovel to divide the clump.

### Problems

The most common reason for hydrangeas failing to bloom is winter injury. Other reasons may be too much shade, poor fertility and too much nitrogen fertilizer. Hydrangeas are susceptible to leaf spots and powdery mildew. Insect pests on hydrangea include aphids, leaf tiers, rose chafers and red spiders. Big Leaf Hydrangeas are not reliable bloomers in our area. Plant breeders are working on this problem & have recently introduced several varieties that may be more reliable.

### Cultivars and Varieties

The cultivars of *Hydrangea macrophylla* are divided into two groups:

- The "hortensias" have sterile flowers in solid masses, which are often so heavy they cause the stem to bend.
- The "lacecaps" have a center of fertile, relatively non-showy flowers and an outer ring of showy, sterile flowers, which together form a pinwheel effect.

### Hortensias:

- ‘All Summer Beauty,’ 3 to 4 feet tall with flower heads produced on current season’s growth, unlike other bigleaf hydrangeas.
- ‘Carmen,’ 4 feet tall with large pink flower heads.
- ‘Nikko Blue,’ 4 to 6 feet tall with rich blue flower heads (in acid soil).
- ‘Blue Prince’ ‘Compacta,’ supposedly more compact than ‘Nikko Blue’ with darker green leaves.
- New varieties are being developed that will bloom in colder climates such as ours; look for varieties such as ‘Endless Summer’



Endless Summer Hydrangea

### Lacecaps:

- ‘Blue Wave,’ 6 to 7 feet tall with lacecap flowers.
- ‘Coerulea,’ perfect flowers a deep blue and ray flowers blue or white.
- Several lacecaps feature silver-variegated foliage: ‘Quadricolor,’ ‘Silver Variegated Mariesii,’ and ‘Variegata.’



Lacecap Hydrangea

**Oakleaf Hydrangea (*Hydrangea quercifolia*):** This deciduous shrub grows to 6 feet tall and has deeply lobed, oaklike, 8-inch leaves, which turn bronze in fall. The white flowers turn pinkish as they age. ‘Snow Queen’ has large white flower clusters. ‘Snowflake’ has a double-flowered appearance. ‘Harmony’ is a low-growing shrub, 3 feet tall and 6 feet wide, with spectacular 12-inch cones of sterile flowers.

**Climbing Hydrangea (*Hydrangea anomala*):** This is a deciduous vine, which climbs high by clinging aerial rootlets. Leaves are roundish, 2 to 4 inches long. The white flower clusters are 6 to 10 inches wide in lacecap effect. Old plants have a peeling, cinnamon-colored bark.

**Smooth or Snowhill Hydrangea (*Hydrangea arborescens*):** This is a 5-foot-tall deciduous shrub with oval, grayish green, 4- to 8-inch leaves. Flowers are dull white and bloom late June through September. ‘Annabelle’ produces enormous (to 1 foot) globular clusters of sterile white flowers on a plant about 4 feet tall. ‘Grandiflora’ has 6-inch clusters on a similarly sized plant.

**Peegee Hydrangea (*Hydrangea paniculata*):** This is a 10- to 15-foot shrub or up to 25-foot tree. Leaves are 5 inches long and turn bronze in fall. Flowers are mainly fertile, in 10- to 15-inch clusters, white slowly fading to pink in fall. Peegee hydrangeas are tolerant of city conditions and grow well in seaside gardens. ‘Tardiva’ flowers later, in August and September. ‘Praecox’ grows 10 to 15 feet tall and flowers in June.

*Hydrangea serrata* is a small (to 5 feet tall) deciduous shrub similar to *H. macrophylla* but smaller, with smaller leaves and smaller flowers. ‘Blue Billow’ is only 3 feet tall.

### Pruning Hydrangeas

There are many different types of hydrangeas; many require different methods of pruning. First, one must know the identity of the hydrangea in the landscape so the proper pruning procedure can be implemented.

#### **Hydrangea arborescens 'Grandiflora' —Hills-of-Snow Hydrangea**

Prune Hills-of-snow hydrangea to the ground line each winter or early spring because it flowers abundantly on new growth and is frequently killed back during winter. If a larger shrub is desired (3+ feet) and/or it is not killed back over the winter, prune less severely. Remove certain branches to the ground; cut others back at varying heights of from 1 to 3 feet.

#### **Hydrangea paniculata 'Grandiflora'—Peegee Hydrangea**

This is the most commonly planted hydrangea because of its massive displays of large white flowers in mid- to late summer. They gradually turn to pink and remain on the plant in a semi-dried condition long after the leaves have fallen. Pruning involves the removal of dead flowers, if unattractive, and annual corrective pruning of vigorous shoots. Thin and/or cut back the previous season's growth in late winter or early spring since flower clusters occur on newly developing branches. Without regular pruning, this hydrangea can rapidly become quite overgrown and out of scale in the landscape. It can, however, be developed into a single or multi-stemmed tree form.

#### **Hydrangea macrophylla—Hortensia or Florist Hydrangea**

This is a commonly grown hydrangea with large globe-shaped flowers. It is frequently forced by florists and sold as an indoor pot plant during the spring season. Once moved outdoors, flower color is dependent upon the pH of the soil in which it is grown: blue if acid; pink if alkaline. There are also several white flowered cultivars.

Pruning can be accomplished at two different times. Late summer is more desirable, since most hortensia types flower only from the end buds of upright or lateral shoots produced during late summer and fall of the previous season. Prune as soon as the flowers have faded and strong shoots are developing from the lower parts of the stems and crown. Remove at the base some of the weaker shoots that are both old and new. Always try to keep several stems of old productive wood with a sufficient number of stout new stems that will flower the following season. Early spring pruning (March), although acceptable, will result in the sacrificing of bloom for that growing season.

Pruning this species too late in the fall (after September) is harmful. New growth, both vegetative and reproductive, will not develop proper maturity. Hortensia is a good seashore shrub; flowering is more profuse in an open, sunny location. This, however, increases its vulnerability to bud killing. Winter protection of the plant should be initiated in December to preserve buds for next year's flowering. Tie the shoots together and wrap with burlap. If left unprotected, delay any spring pruning until the buds swell in order to determine which wood needs to be removed and then cut back to below the point of injury.

**Hydrangea quercifolia—Oakleaf Hydrangea**

This plant is grown primarily for its handsome oak-leaf shaped foliage, excellent fall color, attractive flowers and interesting winter bark. It is ideally suited to a lightly shaded or protected location and if grown in an exposed site, it is subject to some winter dieback. Prune back in early spring to remove dead wood. Cut back to below the point of injury and remove old wood to the base.

**Hydrangea anomala petiolaris—Climbing Hydrangea**

A desirable mid-summer flowering woody vine that attaches itself by aerial roots to brick, masonry, or wood. It requires little or no pruning. If certain shoots have grown out of bounds, reduce their length in summer. Frequently concern is expressed about climbing vines that may be inundating a tree and causing irreparable damage: there has never been a proven case of damage occurring from climbing hydrangea, however.

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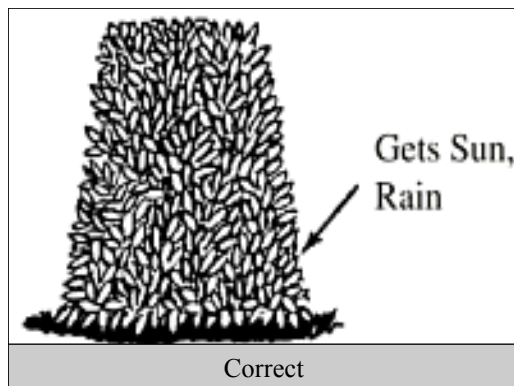
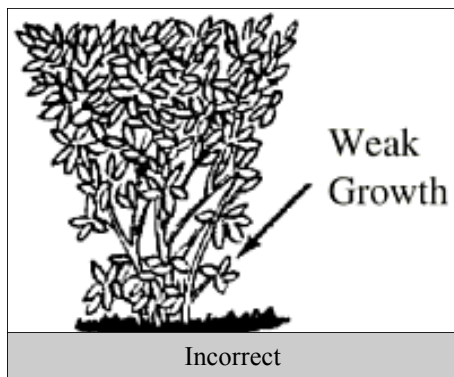
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## Common Shrub Questions:

### What is the proper shape to prune shrubs and hedges?

Hedges/shrubs are often shaped with flat tops and vertical sides. This unnatural shaping is seldom successful. The best shape, as far as the plant is concerned, is a natural form—rounded or slightly pointed top with sides slanting to a wide base.



**When is the proper time of pruning for flowering trees and shrubs?** Part of the answer depends on whether the time of flowering is in the early spring or later in the season. As a general rule of thumb, prune flowering trees and shrubs immediately after flowering

Early spring bloomers formed their buds in early fall the season before on old wood. Pruning these plants before flowering in spring will result in cutting off the buds and decreased bloom.

Trees and shrubs that flower after the end of June develop their buds on the new wood of the season and should be pruned in late winter to early spring (late March-early April). During this time the trees are dormant and it is easier to see before new growth starts.

**Don't mound mulch** up against the trunks of trees and shrubs (1). Those volcano-shaped piles may look good to some, but they can kill your trees.

Instead, spread the mulch about 3 to 4 inches deep in a circle at least 3 feet in diameter around young trees and shrubs. Then brush away mulch at the center of the circle so that it is several inches from the base of the tree. A slight depression in the center is OK (2). Think lunar crater—not Mt. Vesuvius.

Even if you keep it away from the trunk, spreading mulch deeper than 4 inches can create shallow, vulnerable root systems. (2) As your trees grow, extend the mulch to their dripline (the edge of the canopy).

Trees benefit more from this kind of extensive mulching (3). You're not doing them any favors by piling it higher and deeper.



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