

Hydrangea Collection



**THE SCOTT ARBORETUM
OF SWARTHMORE COLLEGE**

Popular since the beginning of the 20th century, hydrangeas are one of the most diverse groups of plants able to fill almost any niche in the garden. Though most are shrubs, vines are also a part of the family and some can be trained into small trees. This pest and disease resistant assembly of plants includes selections suitable for shade and sun, dry and moist sites, and several have attributes for winter interest. The Arboretum's hydrangea collection is located along Whittier Place, across from Papazian Hall.

Cultural Information

The majority of hydrangeas grow naturally in forests or along the edge of a wooded area, thriving as understory shrubs. In a garden setting, most will grow better in an area with dappled shade but a few hydrangeas will flourish in sunny locations.

Soil structure is a key factor in growing hydrangeas well. Because they are naturally woodland plants, the majority of hydrangeas grow best in fertile, well-drained, loamy soil. To help create the proper soil conditions in the garden, use mulch rich in organic material such as leaf compost. A few of the hydrangeas discussed below will thrive in soil with lower levels of organic matter.

Hydrangeas should be examined yearly for pruning needs. Each spring check all types of hydrangeas and remove dead wood and wood damaged by winter weather. As with any other pruning, knowing the species of hydrangea is critical. *Hydrangea paniculata* and *Hydrangea arborescens*, both which flower on current year's growth, should be pruned in late winter or early spring. Plants should be pruned to remove any weak and spindly growth as well as to create a desired shape. All other species of hydrangeas flower on the previous season's growth; prune immediately after the flowers have faded in late summer or early fall. These plants should also have any weak growth removed. It is important to keep in mind that most hydrangeas form flowers from buds on the tips of their branches; selective pruning is essential for good flower displays. For more detailed information on pruning hydrangeas, visit our horticultural library.

The Botany of Hydrangea Flowers

Flowers of hydrangeas are incredibly long lasting, extending the season of interest. Shapes and colors vary widely. There are two basic shapes of the clusters of flowers. The flowers can be arranged in a corymb where the lengths of the flower stalks differ and form either a lacecap (flat-topped inflorescence) or hortensia (ball-shaped inflorescence). The second type is a panicle, a long tapered cluster of flowers. The flowers themselves are actually divided into two types—fertile and infertile. The infertile (sterile) flowers are the showy part of the inflorescence, attracting both people and pollinators. The petal-like structure is the sepal, which protects the forming flower bud before it opens. The fertile flowers are found in the center of the cluster.

Colors of Hydrangea Flowers

The flower color of hydrangeas ranges from white to pink and mauve to blue and purple. One noticeable aspect of hydrangea flowers is they can change color from year to year, often between blue and pink. This phenomenon is due to changes in the soil pH. Alkaline soil (pH above 7) will cause flowers to turn pink while acidic soil (pH below 7) will change the flowers to blue. Always test your soil first to determine if this is the cause. Obtain a soil test kit through your local extension agency or garden center.

Hydrangeas listed below can be found in the Arboretum's hydrangea collection. Plants are listed in alphabetical order by their scientific name.

***Hydrangea arborescens* - smooth hydrangea**

This amazing hydrangea, native to the eastern United States, is an open shrub which will generally reach a height of 6 feet in a partly shaded garden. The smooth gray bark of the young stems ages beautifully to have tawny, exfoliating bark. Coarse, dark green, oval foliage emerges with toothed margins. The typical flowers of *Hydrangea arborescens* are large, hortensia forms with numerous dull white fertile flowers and fewer showy, papery, white, sterile flowers. As they age, the flower heads turn apple green. A slow colonizer, *Hydrangea arborescens* spreads through suckers; if a tighter form is desired, trim suckers yearly. This hydrangea is one of the few which can be cut back to the ground yearly, encouraging larger flower heads.

'Annabelle' is a marvelous selection, blooming in mid-July. Large, rounded flower heads hold hundreds of sterile, white flowers, creating a spectacular show. As the flowers age, the color transforms to apple green and finally papery-brown, remaining showy for several months. The combination of the inflorescence and the exfoliating bark results in noteworthy winter interest. 'Annabelle' is also located at the south end of the Metasequoia Allee. 'Annabelle' is a 2001 Gold Medal Award Winner from the Pennsylvania Horticultural Society.

***Hydrangea involucrata* - hydrangea**

A delightful, small shrub, this hydrangea will grow up to 4 feet tall. The tender, new growth is covered with pale brown, bristly down. Oblong, light green foliage with finely toothed margins creates a wonderful highlight for a shaded garden. Flowering in August, *Hydrangea involucrata* displays 5-inch wide, airy, rounded, lacecap flower heads composed of 1-inch wide individual sterile flowers of pink or blue. In the fall, the flowers will fade to cream with brown edges.

***Hydrangea macrophylla* - bigleaf hydrangea or French hydrangea**

Typically growing from 3 to 6 feet tall, the bigleaf hydrangea is a round shrub with numerous sturdy, unbranching stems arising from the crown of the plant. Extending up to 8 inches from the branches are coarse, dark, glossy green, toothed leaves. Preferring part shade and moist soil, this hydrangea produces highly variable flowers—from lacecap to hortensia types which begin to appear in early July and last through August. The showy, sterile flowers can range from pink to purple or white to blue in color and can individually reach up to 2 inches across.

'Ayesha' has slightly convex flower heads holding 1/2-inch wide white, pink or pale blue flowers. 'Ayesha' can also be found in the Terry Shane Teaching Garden.

'Blue Billow' holds a 3- to 4-inch wide lace-cap inflorescence. The rich blue sterile flowers have 4 wavy-edged sepals and surround blue-purple fertile flowers. If not in acidic soil, the flowers will appear pink or lilac. 'Blue Billow' received the Gold Medal Award from the Pennsylvania Horticultural Society in 1990.

'Mariesii' has hortensia flower heads with extraordinary coloring. The fertile flowers mature to a dark lilac blue and are surrounded by beautiful, large, white sepals, turning to pale blue as they mature.

'Otaska' holds 3-foot tall stems, bowing under weight of its hortensia flower heads with white flowers.

'Pia', a dwarf shrub reaching only 2 to 3 feet tall has mid-green foliage with small hortensia flower heads holding sepals of white with red edges that mature to pinky brown.

'Blue Wave', a lace-cap form, with lilac to pale blue flowers. This shrub is an unusually strong and hardy grower with lustrous dark green leaves.

***Hydrangea paniculata* - panicle hydrangea**

The panicle hydrangea can reach 24 feet tall when mature. Native to the edge of woods and open areas in Asia, this large, multi-stemmed shrub can be trained to look like a small tree. Long, upright, arching, gray branches hold the 3- to 6-inch long and 3-inch wide, olive green leaves. Each has finely toothed margins and small, bristly hairs on the surface. Opening in late summer, long pyramidal inflorescences with mainly white fertile flowers and white sterile florets are scattered throughout the plant. Flowers on each inflorescence open in succession from bottom to top for a long-lasting effect.

***Hydrangea quercifolia* - oakleaf hydrangea**

This fantastic shrub, native to the southeastern United States, fills many niches in the garden. Upright stems can ultimately reach 8 feet in height. The beautifully textured stems are slightly pubescent when young while the older stems hold subtly beautiful, exfoliating, copper colored bark. Bold, coarse foliage, deeply lobed and resembling an oak leaf, is a rich, deep green throughout the growing season. The spectacular fall color ranges from shades of red through orange with hints of purple. Four- to 12-inch long panicles of white flowers appear in late June, persisting into July. As time passes, the white flowers will fade to papery mauve and finally brown and will persist through the first months of winter. This wonderfully diverse shrub can be used in sunny locations or shade. While it performs well in shaded gardens, *Hydrangea quercifolia* will not flower as heavily or achieve its ultimate fall color in heavy shade. This hydrangea is stoloniferous; underground shoots will spread and send up small stems, increasing the density of the plant. These stems can be pruned out if not desired.

***Hydrangea sargentiana* - Sargent hydrangea**

Up to 9 feet tall when mature, the Sargent hydrangea is covered with densely hairy, rich velvety green leaves, 8 to 9 inches long. Purplish young shoots fade to gray with age. The lacecap inflorescence is 5 to 6 inches across with pale purple fertile flowers and dull white, slightly cupped, ray flowers which are over 1 inch across with 4 to 5 slightly ruffled sepals. Though this hydrangea has a gaunt leggy habit, it works

well in combination with rhododendrons. It will bloom in July through early August. The Sargent hydrangea needs moist soil in a slightly shaded area. This hydrangea is marginally hardy in our area; grow in an area sheltered from extreme winter winds and cold.

***Hydrangea serrata* - hydrangea**

Referred to as the mountain hydrangea in Japan, this small upright 5-foot tall shrub will grow best in shaded, moist areas. It can withstand a slight drought if in a cool climate. Elliptical, dull, light green leaves have somewhat prominent veins creating a quilted look. Each of the leaves has sharply toothed margins and can be up to 4 times longer than wide. The flat-topped corymb is 2 to 4 inches across holding pink or blue fertile flowers. Sterile flowers are pink, blue, or white with slightly serrated margins of the sepals.

'**Golden Sunlight**' is a lacecap form with white to light pink blooms and flowers from June to frost. The large sepals age to a deep rose-burgundy. Leaves on this compact shrub emerge yellow and mature to a green.

The following is a list of recommended hydrangeas not found in the hydrangea collection but in gardens around the Arboretum. Plants are listed in alphabetical order and locations are given.

***Hydrangea involucrata* - hydrangea**

See species description in collection listing.

'**Hortensis**' is a variety with double flowers; there are at least twice as many fluttering, showy sepals in each flower. 'Hortensis' can be found in the Terry Shane Teaching Garden.

***Hydrangea macrophylla* - bigleaf hydrangea or French hydrangea**

See species description in collection listing.

'**Mariesii Silver**' with lilac, hortensia flowerheads, has distinctly beautiful foliage with white variegation. This selection is located in the Metasequoia Allee.

'**Nigra**' (syn. 'Mandschurica'), a late flowering form of the bigleaf hydrangea, has small hortensia flower heads with creamy pink flowers held by the red pedicels (flower stalks). The 3-inch wide inflorescence will fade to papery mauve with age. The stems of the plant are dark red to black.

***Hydrangea paniculata* - panicle hydrangea**

See species description in collection listing.

'**Unique**' holds inflorescences of creamy white sterile florets, which can be up to 12 inches long. By autumn, they take on a slight pink tinge. 'Unique' is easily identified by its inflorescence which is broad at the base (up to 8 inches wide) and blunt at the tip. A specimen of 'Unique' is located in the Arboretum's parking lot along College Avenue.

***Hydrangea quercifolia* - oakleaf hydrangea**

See species description in collection listing.

'Alice' presents exuberant, creamy-white sterile flowers almost an inch wide on 12-inch long panicles. The shrub, maturing at 8 feet tall and wide, holds rich burgundy fall foliage. 'Alice' is located in the Nason Garden.

'Snow Queen' is a showy form of the oak leaf hydrangea with densely clustered sterile florets. These will fade to a rosy pink as they mature. The dark green foliage fades to rich red-bronze as fall approaches. This is an excellent selection for sunny borders. 'Snow Queen' can be found in the Summer Border. 'Snow Queen' is a 1989 Gold Medal Award Winner from the Pennsylvania Horticultural Society.

'Snowflake' holds 12 to 15 inch long panicles of creamy white, double florets; each individual flower has multiple layers of the sepals. The heavier, sterile inflorescence weighs down the branches, creating an arching or pendulous habit. 'Snowflake' can be found in the Summer Border.

Credits

The cover illustration for this brochure was created by Barbara Seymour. This brochure was written by Allison Necaie in 2001; Modified in 2003 and 2006.

About the Scott Arboretum

The Scott Arboretum is a public garden covering more than 300 acres of the Swarthmore College campus and displaying over 4,000 different kinds of plants. The Arboretum is a garden of ideas and suggestions, displaying some of the best trees, shrubs, perennials and annuals for use in the Delaware Valley. Established in 1929 as a living memorial to Arthur Hoyt Scott, the Arboretum is open to the public year-round, free of charge, from dawn to dusk. Office hours are Monday through Friday, 8:30 a.m. to noon and 1:00 p.m. to 4:30 p.m. Memberships to The Associates of Scott Arboretum are available. The Scott Associates aid efforts through financial and volunteer support.

For more information, please call the Scott Offices at 610-328-8025. We welcome your questions, suggestions and most of all, visits to the Arboretum.

Visit us on our web site at www.scottarboretum.org.

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