



## Hydrangea Selection, Pruning and Care

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### Types of Hydrangeas

Hydrangeas can be easy to grow in Virginia if you give them a few basic things such as a rich organic soil, regular moisture and shade in the afternoon. Hydrangeas are members of the hydrangea family (Hydrangeaceae) which is sometimes included in the honeysuckle family (Caprifoliaceae). Hydrangeaceae has 17-19 genera and around 260 species of plants native to both tropical and temperate habitats. Nine genera are found in North America. These include vines, shrubs, trees and a few herbaceous plants. Some well know family members include *Deutzia*, *Kirengeshoma*, *Philadelphus* and *Schizophragma*. Other more uncommon genera include *Cardiandra*, *Carpenteria*, *Decumaria*, *Dichroa*, *Jamesia*, *Pileostegia*, *Platycrater*, and *Whipplea*. Most members of the Hydrangaceae have opposite leaves although there are exceptions such as *Hydrangea paniculata* with whorled leaves. Flowers of the Hydrangea Family have 4 to numerous stamens and pistils with 4 (up to 10) joined sepals and 4 to 5 (rarely 10) separate petals. The petals are attached above the ovary and contain 4 united carpels (can be 2-5). The fruit matures as a capsule with many dust-like seeds.

There are 23 recognized species of *Hydrangea* including deciduous and evergreen shrubs, climbers and small trees. Most are from temperate East Asia, but a few are from the tropics and the Americas. The most commonly available hydrangeas are selections of *Hydrangea macrophylla*, grown for their lacecap or mophead flowerheads. Lacecaps contain both fertile and sterile flowers; the sterile flowers have showy bracts attached below them. Mopheads have mostly sterile flowers. Autumn color in hydrangeas is generally yellow to purplish but can be quite spectacular in a few species. *Hydrangea quercifolia* has the most notable autumn color when it turns brilliant red, orange and purple.

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**Climbing Hydrangeas** included in this group are *Decumaria barbata*, *Hydrangea anomola* subsp. *petiolaris* and *Schizophrama hydrangeioides*. These are all vines which climb using aerial roots to attach to the outer surface of walls, rocks, tree trunks or wooden structures like pergolas. Unlike English Ivy they rarely become a problem on trees. Climbing hydrangeas only bloom on vertical stems – vines growing on the ground will not bloom. Minimal pruning is required. They bear lacecap inflorescences with an outer ring of showy white sterile florets around creamy to yellow fertile flowers in late spring. Deadheading can be done right after flowering to save energy and for aesthetics by cutting the inflorescences off above the first leaf. Branches that extend out far from the climbing surface may also be pruned back in summer after flowering to prevent the plants from being pulled from their structures by heavy winds, ice or snow. Climbing hydrangea vines will grow well throughout Virginia in moist shady sites. In cooler parts of the State they can take more sun as long as they receive adequate moisture during the summer.

after flowering to prevent the plants from being pulled off by heavy winds, ice or snow loads.



**Cut branches that extend far from the growing surface just above a bud as you see in the left picture**



**Smooth and Tree Hydrangea** (*Hydrangea arborescens* and *H. paniculata*, respectively)  
These species bloom on the new spring growth. In late winter thin out excessive growth, or prune the entire plant back to the ground. These species bloom reliably regardless which pruning method is selected and are not usually adversely affected by late frosts. Severe early pruning produces a smaller plant with larger blooms; not pruning produces a larger plant with many smaller blooms.

Smooth Hydrangeas are native to the moist woodlands of Virginia and will grow in every area with full to part shade and regular moisture, especially during hot dry summers.

Tree Hydranges are native to Japan and China and will grow well in shade to full sun throughout Virginia planted in moist fertile soils.



**Method 1**

**Cut all stems as close to the crown/ground.**



**Method 2**

**Cut back old blooms back to a bud, remove all tiny branchlets and thin bloom size branches**



**After**

**Oakleaf Hydrangea** (*Hydrangea quercifolia*)

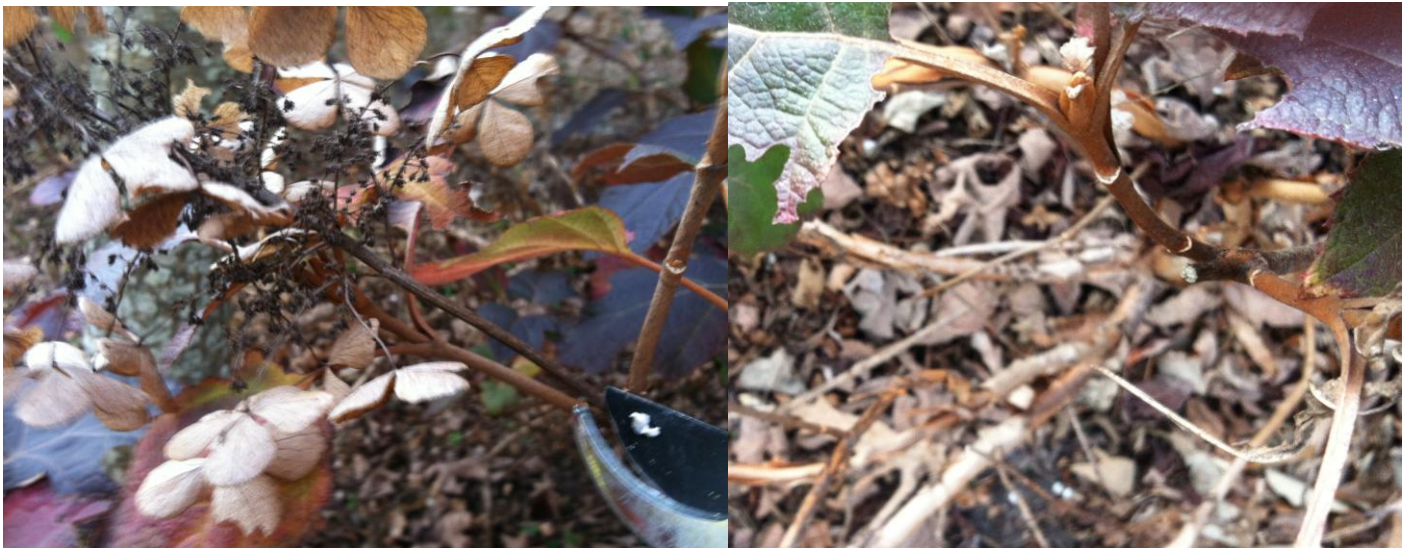
is a large shrub up to 15 feet tall and should be allowed to grow into its own beautiful form with minimal pruning. It blooms on the previous year's branches or old wood. Prune to remove deadwood anytime and consider removing old flower heads soon after blooming. Reshape malformed plants in late winter by cutting them back to just above the pairs of buds on each stem, and/or remove the largest canes all the way to the ground. Minimal pruning is recommended to enjoy the wonderful amber peeling bark and brilliant flame and purple colored autumn leaves.

Oakleaf Hydrangeas are native to Georgia, Mississippi and Florida but are winter hardy to -10F. They will tolerate much more heat and sun than others and will develop the best autumn color in full sun and moist fertile soils.





**In autumn or winter you can remove dry inflorescences or let them disintegrate on the plant**



**Cut the inflorescences off where they attach usually above two diverging branches**

**Bigleaf Hydrangea**(*H. macrophylla* and *H. serrata*) bloom on last year's woody stems. Late heavy pruning on most varieties **will remove** your blooms for the year! Instead, prune out one half to all of the older stems (they have side branches) at ground level in June and July when you are cutting flowers for arrangements or drying. This pruning method will allow more light and air circulation within your plant for disease control, while at the same time reducing size and increasing flower cluster size. Prune in late winter if you missed the opportunity in summer (by the same method described above to thin out the plants). Remove dead branches or frost-damaged leaves and stems as soon as you notice them. Wait to prune new plants until they are 5-6 years old. Ever-blooming varieties of Bigleaf hydrangeas bloom on new and old wood and provide a longer bloom season. They tolerate more severe pruning while still blooming each year.



Bigleaf hydrangeas are native to Japan and Korea. Most varieties are winter hardy in Zone 6 with shade to part sun and moist soils. Especially in Virginia summers, these plants will wilt and struggle if planted in any hot afternoon sun and should be avoided. Florist varieties typically are less winter hardy and may not grow or bloom well outdoors in Virginia.



**Remove branched stems at ground level.**



**Before pruning** – notice darker branched and bloomed stems versus long strong white unbloomed stems



**After pruning-** only long strong white unbranched and unbloomed stems remain

## **Color Change in Bigleaf Hydrangeas**

The color in Hydrangeas is influenced by soil pH which in turn affects the availability of aluminum. In acid soils aluminum is more available for root uptake resulting in blue bloom color. In alkaline soils less aluminum is available to the roots creating pinkish blooms. Genetics of each cultivar also influences the shade of pink or blue blooms based on the soil pH. Changing soil pH is a gradual process (up to 6 months) and requires a soil test for accuracy. Add powdered or pelletized lime or sulfur in autumn, based on your soil test results for the desired pink or blue blooms the following summer.

A quicker way to influence soil pH (acidity/alkalinity) for an individual plant is to apply a liquid soil drench:

To make flowers blue, dissolve 1 tablespoon of aluminum sulfate in a gallon of water and drench the soil around the plant in March, April, and May, or broadcast 1/2 cup of wettable sulfur per 10 square feet of bed area and water it in to the soil.

To make flowers pink, dissolve 1 tablespoon of hydrated lime in a gallon of water and drench the soil around the plant in March, April, and May, or broadcast one cup of dolomitic lime per 10 square feet of bed area and water it into the soil.

Avoid applying the solutions to the bark or leaves as either solution can cause damage plant leaves and stems. If accidental splash occurs, rinse well with water.





## **Troubleshooting Hydrangea blooming**

Improper shearing and renewal pruning on *H. macrophylla* and *serrata* cultivars

Frost injury to early expanding growth buds

Pruning more than a month after bloom time in summer

Excessive shade

Excess nitrogen fertilization

## **Conclusion**

Hydrangeas are a wonderful asset to your garden, but they required proper placement and care. Pruning is key to the successful blooming of each species and can easily be accomplished if you know your plant and make the proper cuts are made at the right time of year.

## **References and For More Information:**

Dirr, Michael, Hydrangeas for American Gardens, 2004. Timber Press, Portland, OR, ISBN 0-88192-641-8

van Gelderen, C. J and D. M. van Gelderen, Encyclopedia of Hydrangeas, 2004. Timber Press, Portland, OR, ISBN 0-88192-622-1

University of Georgia: GEORGIA CENTER FOR URBAN AGRICULTURE : Hydrangea: A Southern Tradition: 2011

<http://apps.caes.uga.edu/urbanag/index.cfm?storyid=2497>

Bir, Richard E. 2002. Bigleaf Hydrangeas. NMPRO 18(2):59-60.

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