

Massachusetts Master Gardener Association

FACT SHEET



Have Gardening Questions? The **Master Gardener Help Line Hours** are 10 a.m. – 2 p.m. on Fridays (all year) as well as Wednesdays (March-November) and Mondays (April-October).

Phone: 617-933-4929 Email: mghelpline@masshort.org.

Hydrangea Basics

Hydrangeas are woody shrubs with large showy blooms that vary in size, shape and color. Depending on the variety, flowers may appear in summer, fall or even throughout the season. Once established they are easy to grow and maintain, and relatively disease and pest free. They look great planted individually or in groups, in perennial beds or with other shrubs.

The blossoms of hydrangeas are actually clusters of individual flowers known as an “inflorescence.” These flower heads are comprised of small fertile flowers and larger, showier sterile flowers. These appear differently on each variety of the hydrangea. In the United States there are four varieties of hydrangea: *Hydrangea macrophylla*, commonly known as bigleaf, lacecap or florist’s hydrangea; *H. quercifolia*, our native oak leaf hydrangea; *H. paniculata*, also known as panicle hydrangea with ‘Pee Gee’ a popular cultivar; and *H. arborescens*, sometimes called smooth hydrangea.

Planting Hydrangeas need to be planted in a space large enough for them to grow to their maximum size without much pruning. Hydrangeas are happy in sun to part shade, but too much shade will keep the plant from blooming. Plant in fertile, loamy soil. Make a hole as deep as the root ball and three times its width. Place the plant in the hole to the same depth as it was in its container. Back-fill the hole with soil amended with organic matter to promote good drainage. Water deeply after planting, but do not fertilize. For the first year insure that the shrub receives one and a half inches of water a week. Fertilize established hydrangeas with a balanced fertilizer. Do not fertilize after August, this may promote new growth that will be damaged by winter freezes.

Pruning The variety of hydrangea determines when and how it should be pruned. Hydrangeas bloom on either new or old wood. The *H. macrophylla*, *H. serrata* and *H. quercifolia* types rarely need to be pruned. These bloom on old wood, meaning on stems that have been on the shrub since the previous summer. Remove dead stems at the base and dead head old blooms. They can also be deadheaded right after blooming in July. Deadhead down to the first set of leaflets. These varieties

should be thinned once they are several years old to rejuvenate the plant by removing thin, spindly stems at the base to let in more light and promote larger blooms on the remaining stems.

Hydrangea paniculata and *H. arborescens* bloom on new wood. These shrubs can be pruned in early spring, fall or winter but not when preparing to bloom in summer. They do not need to be pruned every year. However, they can be pruned to the ground every year once established to encourage vigorous new growth or pruned to one-third to one-half the height to form a tidier bush with smaller flowers. One exception is the tree form which will revert to the shrub form if pruned to the ground. Deadhead spent flower heads at any time, or leave them on for winter interest.

Color No other plant can so readily change its flower color by altering soil acidity. The ability of the plant to absorb aluminum from the soil is what determines the color. All hydrangeas grow best in a soil that is slightly acidic, pH 5.5 to 6.5. For a hydrangea to be blue it must take up aluminum and the soil needs to be more acidic. For a hydrangea to be pink it must not take up aluminum. At a higher, more alkaline pH of 6.0 to 6.5, the plant has difficulty taking up the aluminum naturally present in the soil. For pink blooms, lime can be added to the soil around hydrangea plants to increase the soil pH. Start preparing for pink flowers when the hydrangea is first planted by adding lime or bone meal to the soil. In the spring, as the leaf buds begin to appear, add a fertilizer that is high in phosphorous (NPK of 10-30-10) which ties up the aluminum in the soil. To make a hydrangea blue to purple, help them take up more aluminum. This can be done by lowering the soil pH to a level between 5.2 to 5.5 by adding aluminum sulfate or by using fertilizers low in phosphate (NPK of 15-0-15). Because rainwater is more acidic than hard tap water, watering plants with rainwater also promotes blue flowers. Some new varieties guarantee the color of bloom without depending on assistance from the gardener. Remember: Pink = alkaline, add lime; Blue = acidic, add aluminum.

The Massachusetts Master Gardener Association is a non-profit organization whose mission is to share knowledge and experience with the public through outreach programs in education, horticulture and gardening; to provide the Master Gardener Training Program to interested members of the public; and to provide graduates of the Master Gardener Training Program with educational and practical opportunities to extend their knowledge and interests in gardening and related topics. <http://www.massmastergardeners.org/>