Common Name: Bigleaf Hydrangea

Scientific Name: 
*Hydrangea macrophylla*

Order: Rosales

Family: Hydrangeaceae

Description
There are over 500 known cultivars of bigleaf hydrangeas and they are separated into two main groups. The first group is the *hortensias* which produce large, oval clusters of flowers. The second group is the *lacecap*es which produce less bright, flat-top flowers in the center and more impressive flowers on the outer ring. The most common colors of the *hortensias* are pink and blue but bigleaf hydrangea may also produce white flowers. The colors of the hydrangea may differ depending on pH levels and amount of aluminum in the soil. The bigleaf hydrangea flowers in the summer and spring. The leaf arrangement is opposite and the venation is pinnate. The leaf blade length varies from 4 to 8 inches in size and experiences no fall color change. The bigleaf hydrangea does produce small, oval, brown fruit.

Growth Habit
Bigleaf hydrangea is a deciduous plant that can reach 6 to 10 feet in height and width. The plant grows in a roundish shape and its density is moderate. The stems of the hydrangea are thick and often clumped together.

Hardiness Zone(s)
Bigleaf hydrangea can grow in USDA zones 3 through 9. It naturally occurs in zones 5B through 9A. USDA Cold Hardiness zone 6 and warmer is the recommended growing area for *H. macrophylla*. Some weather conditions that can cause damage to the bigleaf hydrangea include early fall freezes that happen before the plant is dormant, low winter temperatures, and late spring freezes that happen after the plant has broken dormancy.

Culture
Bigleaf Hydrangea will tolerate clay, sand, acidic soil, slightly alkaline soil, and occasionally wet soil. Its soil salt tolerances are poor. The plant needs at least 36”-60” of space. If the plant’s roots are too close to trees or other plants and the roots are in competition with each other, bigleaf hydrangea’s growth will slow dramatically. It performs best in moist, rich garden soil in light sun or shade. Avoid planting in hot, dry, sun exposed areas. Cold damage can occur and preventive measures and winter protection should be applied. When temperatures drop below freezing, covering the plant with a sheet, blanket, or cardboard will protect it from cold damage. Winter injury can cause the plant to fail to flower. Bigleaf hydrangea reacts best to numerous small applications of fertilizer during the growing season. An equal-purpose fertilizer, such as 8-8-8 or 10-10-10 should be applied at a rate of 1 lb./100 sq. ft. in the summer. Bigleaf hydrangea is very
water demanding and grows best in moderate rainfall climates. Pruning in the late summer, fall and winter will remove potential flower buds. It is best to prune the plant when the flowers begin to fade. Prune out the flower heads and head back other shoots to encourage branching and fullness. Sometimes it’s necessary to prune after winter to remove damaged parts of the plant. However, this will encourage more vegetative growth and may affect flower production. It is better for the overall health of the plant. Depending on pH levels, the flower colors may differ. Neutral or alkaline soils with pH levels of 7 or higher decreases the aluminum in the soil and may cause the flowers to take on a more pink color. pH levels lower than 5.5 will cause the flower to turn blue.

**Diseases & Insects**
In landscape settings the bigleaf hydrangea is generally pest free. However, under certain growing conditions some diseases and insects can create problems. The major disease problem in the bigleaf hydrangea is powdery mildew. It is most common in plants growing in shade and high humidity climates. Leaves infested with this disease are covered with light gray powdery substance. Purple splotches may also appear on the leaves. This disease rarely kills plants, but does make the plant unattractive. There are also several fungal leaf organisms that can attack the bigleaf hydrangea. The leaves of the plant will develop brown to gray spots surrounded by purple circles. These spots are most common in late summer and early fall. Plants are rarely killed, but severe infestations are unattractive. Aphids can also be a problem. Aphid infestations are often indicated by ants crawling on plant leaves. The ants feed on the sticky excrement left by the Aphids. Aphids can be easily controlled by insecticide spray. Mite infestations can cause incorrect growth which is mainly seen in new shoots. This problem is usually worse in hot, dry weather. Appropriate watering is a good preventative measure against mites.

**Landscape Value**
Bigleaf hydrangea is not likely to survive in northern areas because of the winter climate. It is more suited to southern and eastern areas. It makes a good flower display and is often used for shrub border in the south. They are also planted around homes because of their beauty. In some places they are planted along the coastline.

**References**

This document was authored by Mallory Chapman, Department of Agricultural Sciences, Louisiana Tech University, April 2015.