



Bigleaf Hydrangea *Hydrangea macrophylla*

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Summary:

Foliage: 6 inch oval leaves with a waxy feel; deciduous

Height: About 4 to 5 feet tall (varies with cultivar)

Spread: About 6 feet wide (varies with cultivar)

Shape: Round to oval

Main features: Bigleaf hydrangea is a very popular flowering shrub. Flowers are mostly produced in June and July but newer cultivars (that flower on new growth) flower through the summer. Depending on the particular cultivar, bigleaf hydrangeas bear one of two types of flowers. Plants with large globe-shaped flowers are called mopheads (technically called *hortensias*); mophead flowers clusters are composed of showy sterile florets with less showy fertile flowers tucked within the showy florets. Plants with flat flower clusters are called lacecaps; lacecaps are composed of a ring of showy large sterile florets on the outside and the center is composed of less showy fertile flowers.

There are numerous cultivars of both types and personal preference dictates which one(s) to purchase. A relatively recent phenomenon has occurred in bigleaf hydrangea cultivar selection. Prior to this phenomenon, most cultivars set flower buds in the year prior to flowering. For example, a plant that will flower in the summer of 2011 produced those flower buds in the late summer of 2010; this phenomenon is referred to as "blooming on old wood", i.e., flower buds produced in the year prior to flowering. However, cultivars have been found not only to bloom on old wood but also produce flowers on current season's shoots ("new wood") in addition to blooming on old wood. The re-blooming phenomenon in a season is termed "remontant". Remontant cultivars are very popular in the garden center trade since they offer a much longer season of flower production (into August).

There is another reason why remontant cultivars have become popular; this reason is related to flower bud hardiness. Flower bud and stem hardiness (tolerance of low winter temperatures) varies for bigleaf hydrangea cultivars. In general, many cultivars have flower buds that are not hardy in zone 6. Thus, bigleaf hydrangeas would typically not flower in zone 6 because their flower buds are usually killed by low winter temperatures; flower buds occasionally get killed in zone 7. However, remontant cultivars, since they produce flower buds on new growth, will produce flowers in zone 6. Of course, remontant bigleaf hydrangeas grown in zone 7 (or warm areas of zone 6b) and higher would flower on old wood and new wood. Apparently, removing spent blooms of the first flower flush is necessary to produce flower buds on the new growth.

Another topic of interest to those selecting bigleaf hydrangea cultivars is flower color. Flower color can be vivid blue or vivid pink; intermediate colors, colors such as rose, purple, and mauve, are also produced. Some lacecap and a few mophead cultivars have white flowers. Flower color is primarily influenced by a pigment in the plant. This pigment is influenced by soil pH. In a relatively acid soil (about soil pH 5.0 to 5.5) flower color will be blue. At soil pH values higher than 6.0 to 6.5, flower color will be pink. Soil pH in the range of 5.6 to 5.9 will produce flower colors that intermediate between pink and blue; one can even find blue flowers and pink flowers on the same plant, apparently due to soil pH differences throughout the root system. The underlying reason for the flower color change that is related

to soil pH has to do with the fact that aluminum is more available to plants in acid soils (soil pH less than 7.0), and this aluminum results in the production of the pigment responsible for the blue flower color. At soil pH values higher than 6.0, aluminum is less available to plants (exists as unavailable aluminum), thus the low aluminum availability results in little or no pigment responsible for blue flowers, hence pink flowers are produced. A few cultivars do not have the pigment responsible for blue flowers and they will have pink flowers (or white for some cultivars) regardless of soil pH.

Cultivar suggestions will be given in the Additional Information section.

Plant Needs:

Zone: 6 to 9 (remontant cultivars should be planted in zone 6 due to common flower bud kill due to a lack of flower bud hardiness)

Light: Does best in part shade; usually wilts in the afternoon in full sun

Moisture: Average; leaves quickly wilt insufficient moisture (or in full sun)

Soil type: With ample organic matter pH range: Acid to alkaline

Functions:

Can be used as a specimen plant (due to exceptional flower show), in mass, and in borders.

Care:

Adequate moisture is essential. Since plants flower on old wood, pruning should be accomplished as soon as flowering is finished (prior to flower bud formation for the following year). Late summer, fall, winter pruning will remove flower buds for the following year. Note that remontant cultivars will also produce flower buds on new wood. Apparently, removing spent blooms of the first flower flush is necessary to produce flower buds on the new growth.

Additional Information:

There are numerous cultivars in the trade that vary in plant size, flower, foliage, and stem strength characteristics. Dr. Michael A. Dirr, in his exceptionally well documented text *Hydrangeas for American Gardens* (Timber Press), gives this list of "the best of the best": 'All Summer Beauty' mophead with pink to blue flowers

'Altona' mophead with rose to deep blue flowers

'Ami Pasquier' mophead with crimson to purple flowers

'Coerulea Lace' lacecap with pink to blue flowers

'Dooley' mophead with pink to blue flowers

Endless Summer™ mophead with pink to blue flowers; remontant 'Europa' mophead with pink to blue-purple flowers

'Freudenstein' mophead with pink to blue-purple flowers

'Frillibet' mophead with blue flowers

'Generale Vicomtesse de Vibraye' mophead with pink to blue flowers 'Lanarth White' lacecap with white flowers

'Lilacina' lacecap with pink to lilac to blue to imperial purple flowers 'Mme Emile Mouillere' mophead with white flowers that turn to pink 'Mousseline' mophead with pink to light blue flowers

'Nikko Blue' mophead with pink to blue flowers

'Veitchii' lacecap with white flowers that turn to pink

'White Wave' lacecap with white flowers that turn to pink

