

Hydrangea Glossary

Alabama Hydrangea Society

Without doubt, Hydrangeas are a popular and beautiful shrub and a mainstay in many Southern gardens, but they can also cause their share of confusion even among experienced gardeners. They seem to have their own language – a specialized vocabulary that is uniquely associated with this genus. Understanding these terms will help further our study and appreciation of Hydrangeas and should make us better gardeners.

Contributors:

Proven Winner's web site: <https://www.provenwinners.com/learn/landscaping/hydrangea-glossary>

Hydrangeas: beautiful varieties for home and garden, Naomi Slade, 2020.

Hydrangeas for American Gardens, Michael A. Dirr, 2004.

The Hydrangea Book: the authoritative guide, Michael A. Dirr, 2021

Hydrangeas: a gardener's guide, Toni Lawson-Hall, 1995

Taxonomy: Taxonomy is **the science of naming, describing, and classifying organisms**. It is a system of classification. As applied to Hydrangeas, they are in the Family of Hydrangeaceae, the Genus Hydrangea. **Genus** is a botanical category denoting a group of allied species. The mission of the Alabama Hydrangea Society is "...to foster, to promote, to educate and to study the Genus Hydrangea." The various types of hydrangeas are all species which belong to the Genus Hydrangea.

Hydrangea Distribution: Many of our Hydrangea species are native to Asia and a few are native to North America, but species can be found all around the world as shown in this map. There are more than 60 species of hydrangeas worldwide, but in the Southeast, we typically garden with only about six Hydrangea species.

Binomial Nomenclature: Gives plants their "Scientific name" or "Latin name". Carl Linnaeus was the Swedish botanist, zoologist, taxonomist, and physician who formalized binomial nomenclature, the modern system of naming organisms. "Binomial" – two names – a "two-name naming system". Each plant, animal, or organism is uniquely identified by the combination of genus and species names. (e.g., *Hydrangea quercifolia*)

Cultivar: a particular plant that has arisen either naturally or through deliberate hybridization which is clearly distinguishable from the common species type. Its distinctive characteristics are retained in reproduction to produce more of the same plant. The term cultivar is derived from "cultivated variety."

Proper Nomenclature: It is the convention in horticultural textbooks to italicize the species name of a plant. Cultivar names then follow and are not italicized but appear with single quotes. In repeated references to the same genus, that genus name can be abbreviated (e.g., *H. macrophylla* 'Nikko Blue').

The Name "Hydrangea": Greek derivation meaning 'water vessel' in reference to the shape of its seed capsules. This magnified photo of the seed capsules of the Smooth Hydrangea illustrates this shape.

Bigleaf Hydrangeas: *Hydrangea macrophylla* (literally meaning "big leaf"). This hydrangea is native to Japan and Korea and was introduced to the Western world in the late 1700's. Other common names are garden hydrangea and French hydrangea. The name French hydrangea came about because so much breeding and new introductions were done in France and Belgium in the early 1900's.

Hortensia: an old-fashioned common name for mophead forms of *Hydrangea macrophylla*. It is also the French and the Spanish word for hydrangea. This name was given by the French botanist de Jussieu, in 1789.

Mountain hydrangea: *Hydrangea serrata* - the word serrata means serrated – referring to the serrated or “toothed” leaves of this plant. *Hydrangea serrata* is similar to bigleaf hydrangea except it is a smaller more compact shrub with smaller flowers and leaves. In some textbooks this species is listed as *Hydrangea macrophylla* var. *serrata* which would classify it as a variant of a *H. macrophylla*. More often it is given its own species – *Hydrangea serrata*. Mountain hydrangea is much like **bigleaf hydrangea** in terms of its rich pink or blue flower colors; flowers are typically of lacecap form. However, mountain hydrangea has better **cold hardiness** than bigleaf hydrangea, making it less likely to suffer winter damage. Mountain hydrangea and bigleaf hydrangea are unique in all the plant world in that their bloom color of pink or blue can give an indication of the soil’s pH.

Panicle Hydrangeas: *Hydrangea paniculata* - the name paniculata refers to the panicle shape (cone shape) of the bloom. This is another hydrangea native to Asia. This hydrangea prefers a half day or more of sunlight to bloom well. It typically blooms in July and the blooms persist for months – thus extending the bloom season for Hydrangeas.

PeeGee hydrangea: Often used as a common name for **panicle hydrangea**. However, “PeeGee” derives from *H. paniculata* ‘Grandiflora,’ a very old specific variety of panicle hydrangea introduced in the 1860s and still available today. Since “PeeGee” only refers to this variety, **panicle hydrangea** is a more appropriate common name for the species.

Smooth hydrangea: The most widely used common name for *Hydrangea arborescens*. Other names include wild hydrangea and sevenbark. It is ironic that the name “arborescens” means “tree-like” while this is among the smallest hydrangeas! The common species of smooth hydrangeas (left photo) may have few to no sterile flowers and for that reason are rarely sold by nurseries. **Annabelle:** ‘Annabelle’ is a specific variety of smooth hydrangea that was discovered near Anna, Illinois in 1910. It was the first smooth hydrangea composed almost entirely of sterile flowers, giving it a mophead form. It became so widely grown since its introduction that ‘Annabelle’ has incorrectly become a common name used to describe any smooth hydrangea. Michael Dirr calls ‘Annabelle’ “The queen of *H. arborescens* cultivars.”

Oakleaf hydrangea: The common name for *Hydrangea quercifolia*, a North American native hydrangea with large, cone-like white flowers and large leaves that resemble those of a red oak tree. It is widely grown for its excellent autumn color and unusual peeling bark as well as for its showy blooms. The plant thrives in the heat of the South and many cultivars have been introduced from Alabama – including ‘Snowflake’, ‘Harmony’, ‘Pee Wee’, ‘Gatsby Star’, ‘Gatsby Gal’, ‘Gatsby Moon’, and ‘Sike’s Dwarf’.

Climbing hydrangea: The common name for *Hydrangea anomala* subsp. *petiolaris*, a woody vine that climbs up trees, walls, or any solid structure. Native to Asia, it is grown for its attractive foliage, unique vine habit, and fragrant white flowers. It’s an especially slow grower but can reach 30 or more feet tall.

Japanese Hydrangea Vine: Known previously as *Schizofragma hydrangeoides* (pronounced skiz-oh-FRAG-mah hy-drain-jee-OY-deez), it has recently been re-classified into the *Hydrangea* genus as *Hydrangea hydrangeoides*. However, it is still often referred to as *Schizofragma*. It is native to Japan. It has similar lacecap blooms as the Climbing Hydrangea.

Woodvamp Hydrangea: Previously classified as a separate species - *Decumaria barbara*. This plant is native to the U.S. The leaves cover the plant from top to bottom, making it ideal to hide fences or buildings. At Aldridge Gardens, this plant is growing near the waterfall bridge.

Inflorescence: describes the entire flower head (i.e., bloom), composed of numerous smaller sepals or florets arranged together on a single stem. The part of the plant bearing flowers.

Flower Types: Hydrangea blooms can be described in several ways:

Mophead: The round, globose-headed, ball-like hydrangea flowers are known as mophead hydrangeas. Mophead hydrangea flowers are made up primarily of the large, showy **sterile flowers** or **sepals**. They

may bear smaller **fertile flowers**, but these are obscured by the more numerous and densely packed sterile flowers, resulting in a spherical shape. Examples of mophead flowers can be seen among several hydrangea species.

Lacecap: Lacecap refers to the arrangement of flowers that comprise the hydrangea inflorescence. In lacecap hydrangeas, the smaller, pollen-bearing **fertile flowers** are most numerous; they are surrounded by an outer ring of the showy **sterile flowers** or **sepals**. Lacecap flowers tend to be flat and loosely packed; they look light and airy. Lacecap blooms can appear on any species of hydrangea.

Panicle: An inflorescence that is typically pyramidal or cone shaped. This shape is typically found on oakleaf and panicle hydrangeas.

Fertile flowers: The fertile flowers on a hydrangea are tiny and numerous. If they are observed closely, stamens and pistils can be clearly distinguished. In a **lacecap** flower, fertile flowers comprise the bulk of the inflorescence, with **sterile flowers** or **sepals** in a ring on the outer edge; in a **mophead**, they are usually nestled down under the larger sterile sepals.

Sterile flowers: The large, papery flowers that make hydrangeas so showy are known as sterile flowers. They contain little to no actual pollen and simply serve to lure pollinators to the flowers and down to the fertile flowers.

Sepals are the proper name of what we might have called the “flower petals.”

Eye of a flower: the center part, especially when of a different or contrasting color.

Pedice / Bract: A **pedicel** is a stalk of one flower. A **bract** is a modified leaf or scale at the base of a flower stalk - its function is to protect the young flower buds.

Plant Node: part of stem from which other shoots, stems, or buds arise

Axil: the angle between leaf and stem

Petiole: stem joining leaf to branch

When pruning, cut just above a node being careful not to damage the leaf buds found in the axil.

***H. macrophylla* (Thunberg ex J. A. Murray) Seringe** – This is the chapter title in Dirr’s 2004 Hydrangea book for which he offers no explanation of who Thunberg, Murray, or Seringe are. They are the names of the early botanists who first identified and named the Bigleaf Hydrangea.

- Carl Peter Thunberg published a description of Bigleaf Hydrangea in 1784.
- Johan Andreas Murray published his book 2 months earlier
- Thunberg originally classified this hydrangea as being in the ***Viburnum*** genus (*Viburnum macrophylla*).
- In 1830 Nicolas Charles Seringe transferred the plant to the genus ***Hydrangea***.

Likewise, here are the chapter titles in Dirr’s book for other Hydrangea species:

- *H. serrata* (Thunberg) Seringe
- *H. arborescens* Linnaeus [Carl Linnaeus (1707-1778) “The father of modern taxonomy”]
- *H. quercifolia* Bartram [John Bartram (1699-1777) famous Colonial botanist/explorer - the “father of American botany.”]
- *H. paniculata* Siebold [Philipp Franz von Siebold (1796-1866) – explorer of Japanese flora and fauna.]
- *H. anomala* D. Don [David Don (1799-1841), Scottish botanist]

Florist Hydrangea (aka hothouse hydrangea, “foil wrapped” hydrangea). These are grown for the florist trade in greenhouses and are often timed or forced into bloom around Valentine’s Day or Mother’s Day. They are selected for their giant and plentiful blooms and are intended for indoor use. They are usually

sold without a cultivar name and may or may not be good garden hydrangeas since they were not grown for cold tolerance.

Picotee: refers to a variation in color along the edges of a sepal.

Vegetative Propagation – To propagate a new plant by means of taking a piece of the original plant and creating a new, identical plant from that piece. The result is a new plant with the identical genetics as the original. This new plant is called a **clone**. This method of propagation is how cultivars and selections stay true-to-type.

Tissue Culture - Tissue culture involves **the use of small pieces of plant tissue which are cultured in a nutrient medium under sterile conditions**. Using this technique, plants can be induced to rapidly produce new shoots, and, with the addition of suitable hormones new roots. Advantages: The new plants can be grown in a short amount of time. Only a small amount of initial plant tissue is required. It's another form of vegetative reproduction.

Harden off - To naturally acclimate to changing weather. The process that plants go through to “toughen up” for the winter. In the case of hydrangeas, in fall the leaves drop, and the soft green stems become brown and dry. To **break dormancy** is the opposite process where leaves and buds awaken with the warming spring weather and begin to grow.

Sport – A spontaneously arising mutation in part of a plant which can then be reproduced vegetatively as a new cultivar. A sport is a variant from the type. For example, Michael Dirr's new mophead introduction 'Rock-n-Roll' is a sport of the Endless Summer lacecap 'Twist-n-Shout'.

pH: pH stands for “potential Hydrogen” and it is a measure of how acidic or alkaline a substance might be. Most ornamental plants prefer a soil pH of between 5.8 to 6.5 which is considered slightly acid. Bigleaf hydrangea blooms are more likely to be blue in more acid soil. Rainwater pH is between 5.0 and 6.0, which is why areas with high rainfall tend to have acid soil.

Open Pollinated: Pollination as nature does it – insects distributing pollen. As opposed to controlled or cross pollination as plant breeders might perform. Michael Dirr refers to plants being “OPed” for short.

Sepal Inversion – When the fertile flower is pollinated, the sepals turn down and the colors beautifully regress to soft, burnished green, blue, pink, rose and burgundy on their backside. This is very apparent on lacecaps, but sepal inversion occurs on most hydrangea species.

RHS AGM – The Royal Horticultural Society awards certain plants the Award of Garden Merit – an indication by the Society that the plant will perform well in the garden. The award for hydrangeas has been given to one Smooth Hydrangea ('Annabelle'), two Oakleaf ('Snowflake' and 'Snow Queen'), six Panicle Hydrangeas (including 'Limelight', 'Phantom', and 'Pinky-Winky'), twelve *H. serrata*, and 33 *H. macrophylla* (most of them European varieties that we don't see in the U.S.).

Old Wood / New Wood: Old wood refers to plant stems from last season's growth. New wood refers to current growing season growth. This is an important distinction when it comes to knowing when to prune Hydrangeas. Bigleaf, Mountain, Oakleaf, and Climbing Hydrangeas bloom from buds set the previous growing season and should only be pruned shortly after they flower. In contrast, Smooth and Panicle Hydrangeas bloom on new growth and can be pruned in late winter.

Remontant / Reblooming: The quality of blooming more than once in a growing season. Some hydrangeas have the capacity to rebloom – that is, bloom at their normal, expected time and then bloom again later in the same season. All Endless Summer hydrangeas, for example, have this ability to bloom on both old and new stems.

Two Common Disease: Powdery mildew is a common fungus that appears as light grey or white powdery spots usually found on the top surface of infected leaves. Cercospora leaf spot appears as round, dark spots. Most infections cause minor damage and it's rarely fatal, if left unchecked they can eventually cause serious harm by robbing plants of water and nutrients. Plants can also become weak, bloom less, and grow slower and possibly hinder flower buds from setting. Remove infected leaves and spray with a fungicide as a preventative.

Colonizing - Colonization is the process in biology by which a species spreads to new areas by natural means. Smooth and oakleaf hydrangeas in particular have a colonizing habit - they spread by underground stems. That makes them easy to propagate by division during the dormant season. Propagation by division is simply digging and separating the new sprout away from the colony. You can see evidence of colonizing by many of the mature oakleaf hydrangeas at Aldridge Gardens.

N-P-K (fertilizer) – These letters are the chemical symbols for Nitrogen, Phosphorous, and Potassium. You can remember what each symbol stands for by recalling that the symbols are listed in alphabetical order of the nutrients – Nitrogen, Phosphorous, and Potassium. The numbers represent the % by weight of each element. Fertilizers are required to list this information for the consumer.

Organic Fertilizers – As opposed to “chemical fertilizers”, organic fertilizers are composed of composted organic matter, which is defined as anything that once lived. They are preferred by some gardeners for being “eco-friendly”, but they are often more expensive and are of lower concentration of nutrients.

Complete Fertilizer – A complete fertilizer is simply one that has some amount of all three of the major nutrients. Lawn fertilizer (shown here with a 15-0-10 chemical analysis) often does not contain Phosphorous and is therefore not considered a “complete fertilizer.”

Azalea/Camellia Fertilizer: These fertilizers help acidify the soil. Some plant nutrients (such as iron) need a level of acidity to be available to the plant. Use this fertilizer on your Bigleaf Hydrangeas if you desire blue blooms.

Bud Hardiness: Ability of flower buds to survive late winter cold spells and whipsaw temperatures. The Mountain Hydrangea (*H. serrata*) has better bud hardiness than Bigleaf Hydrangea (*H. macrophylla*).

Bee-friendliness: Hydrangeas species vary in bee-friendliness and their ability to feed pollinators. Some cultivars such as ‘Limelight’, ‘Snowflake’, and ‘Harmony’ are made up of all or almost all sterile flowers. Hydrangeas with lacecap blooms that consist of many fertile flowers are the best food providers for bees and pollinators.

Air Drainage: Cold air tends to fall, because it is denser than warm air, and collects at the bottom of slopes such as in valleys. Frost pockets occur where cold air collects and plants in such areas are more likely to experience frosts. These frost pockets create microclimates which might best be avoided when planting cold-susceptible plants like Bigleaf Hydrangeas. Cold air can also collect in hollows on the way down slopes. It can also develop because of barriers, such as walls and solid fences, placed across the slope.

Snowflake / ‘Brido’ Mystery: When Eddie Aldridge filed a patent application for the Snowflake hydrangea in 1970, the cultivar name he assigned to it is ‘Brido’ – not Snowflake. This Missouri Botanical Garden web page correctly lists both the cultivar name (‘Brido’) as well as the name under which this oakleaf hydrangea is sold (Snowflake). The mystery is: where did the name “Brido” come from? Eddie doesn’t mention this name in his book *A Garden of Destiny*. Neither Rip Weaver, nor Kay Aldridge, nor Eddie’s long-time friend Willie Edmiston have a clue about the origin of this name ‘Brido’. We may never know the answer to this mystery!