Ranging from bashful woodland denizens to bold sun-loving giants, America’s native magnolias offer plenty of interest for any garden.

America’s Magnolias

BY GIL NELSON
Magnolias are the aristocrats of America’s native trees, primordial relics thousands of millennia in the making and little more advanced today than at the time of their origin, when dinosaurs still rumbled the earth. Based on the fossil record, they date from at least the Cretaceous Period—135 to 100 million years ago—and some experts believe they may be even older than that.

The genus Magnolia is one of only two genera in the magnolia family (Magnoliaceae). Two species of tulip poplar (Liriodendron)—one in North America, the other in China—round out the family. There are about 220 species of magnolias worldwide—not including the numerous selections, cultivars, and hybrids—nearly all of which have been successfully introduced into horticulture. About two-thirds are indigenous to Asia, ranging from India to China, Korea, and Japan. The remaining species are centered in the West Indies, Mexico, and the Americas.

Nine species are native to North America, one of which is found only in the cloud forests of Mexico. The other eight—two evergreen and six deciduous—range from New York to Florida and west to Texas, placing the eastern United States at the center of North American distribution. But the native species, particularly the evergreen ones, have proven quite adaptable outside their natural range and many adorn gardens from the Midwest to the West Coast and Pacific Northwest.

**EVERGREEN NATIVES**

Two evergreen magnolias occur in the eastern United States, both of which are southern in distribution and restricted in nature mostly to the broad coastal plains that stretch away east and south from the Piedmont’s rolling hills.

Sweetbay (M. virginiana, USDA Hardiness Zones 6–9, AHS Heat Zones 9–6), sometimes called swamp magnolia, is the smaller of the two. Its fragrant flowers are smaller than other native magnolias—usually measuring less than three inches wide when fully open—but they bloom in showy abundance in late spring and early summer. The two-toned leaves are pale green above and silvery white beneath, causing well-exposed trees to shimmer between these colors in the slightest breeze.

Sweetbay is quite variable in nature, and two primary varieties have been identified. The northern one (variety virginiana) is typically a large multi-stemmed shrub that usually doesn’t exceed 20 feet in height. It is slightly harder than its southern cousin, to USDA Zone 4 or 5, but may lose its leaves in winter in cooler zones. The southern form (variety australis) can reach heights of 50 feet or more in the garden (nearly 100 feet in the wild) with an open crown and attractive smooth grayish trunk. It performs best in USDA Zones 7 to 10. Although both varieties are wetland plants in nature, they do not require wet soils in the garden and surprisingly will thrive in dry, sunny locations.

A few cultivars of sweetbay are available. Andrew Bunting, curator of the Scott Arboretum of Swarthmore College, says, “One of our favorites is M. virginiana var. australis ‘Henry Hicks’, which is a selection made here at the Scott Arboretum. In our climate it is semi-evergreen. We also grow ‘Santa Rosa’ which has large glossy, dark green leaves.”

Nancy Buley, director of marketing and communications for J. Frank Schmidt and Son tree nursery in Boring, Oregon, likes ‘Jim Wilson’, which is sold under the trademark name Moonglow. Named after a well-known garden writer, it has an upright habit, tends to be evergreen, and is hardy to USDA Zone 4 or 5, according to Buley.

The other native evergreen species is southern magnolia (M. grandiflora, Zones 7–9, 9–6), which is much larger than the sweetbay, with thick, leathery, dark green foliage. Its attractive form and popularity have resulted in the selection of more than 125 cultivars.

![Sweetbay magnolia](image)

Sweetbay magnolia, left, is prized for its silvery-green leaves—evergreen in warmer regions—which seem to shimmer in a breeze. It also bears deliciously fragrant early summer flowers, such as this one, above, from the cultivar ‘Henry Hicks’.

Standard southern magnolias tend to get so large at maturity that they can grow out of scale with residential landscapes. This has driven breeders to seek out smaller selections with compact, columnar forms. Three of the more popular are ‘Little Gem’, ‘D. D. Blanchard’, and ‘Bracken’s Brown Beauty’. All have shorter leaves than the species—often less than six inches long—with a covering of attractive rusty or dark brown hairs on the undersides.

‘D. D. Blanchard’ is one of the most popular tree-sized selections, reaching 50 feet tall and 35 feet wide. ‘Little Gem’ is perhaps the best compact form, often growing as a large, dense-
ly foliaged shrub, but sometimes forming a small tree. It is typically less than 30 feet tall, about half as wide, and is useful as a specimen or screening plant. ‘Little Gem’ is excellent for gardens in warmer climates and may suffer during severe winters farther north.

‘Bracken’s Brown Beauty’ (Zones 6–9, 10–4), which usually tops out at 30 to 50 feet tall and 30 feet wide, is hardier than ‘Little Gem’ and has become popular in gardens as far north as New England. It may suffer leaf burn or even defoliate completely in severe winters, but is among the selections of choice for colder climates.

‘Kay Parris’ and ‘Edith Bogue’ (6–9, 9–6) are similar in size to ‘Bracken’s Brown Beauty’ and should also be tried in northern gardens. ‘Kay Parris’ features a prolonged flowering period, striking blossoms, and glossy green leaves that are nearly orange beneath. It may prove to be hardier than its USDA Zone 7 rating suggests, and its form may be even better than that of ‘Little Gem’. A relatively new introduction named Alta® (‘TMGH’) is reported to grow to 40 or 50 feet with a columnar habit.

Regardless of attempts to breed cold hardiness into this species, Magnolia grandiflora is essentially a southern plant.

DECIDUOUS NATIVES
While the evergreen species are by far the most popular of the native magnolias, the deciduous species should not be overlooked—especially the big leaf forms. The Ashe, bigleaf, and umbrella magnolias are spectacular in the garden, featuring huge flowers and graceful forms. The flowers of Ashe and big leaf magnolias can be nearly two feet wide when fully open, with creamy white tepals that sport a large purple blotch at the base. The flowers of umbrella magnolia are all white and about half the size of its large-leaved relatives. The leaves of all three are exceptionally large, potentially to more than three feet long in the bigleaf and Ashe magnolias, and up to two feet in umbrella magnolia. The only other widely used deciduous natives include the smaller-leaved cucumber magnolia (M. acuminata) and its diminutive variety, yellow cucumber magnolia (M. grandiflora)
Acuminata var. subcordata). Ashe magnolia (M. ashei, Zones 6–9, 9–6) is, at once, the rarest of the deciduous natives in the wild and one of the most popular with gardeners. Named for W. W. Ashe, an early 20th century botanist who first collected the plant in the Florida panhandle, its natural habitat is restricted to bluffs, ravine slopes, and a few upland woods between Tallahassee and Pensacola. Yet, it has proven cold hardy in trials to USDA Zone 4 and is comfortably rated hardy to at least USDA Zone 6. In fact, the largest Ashe magnolia on record grows at the Henry Botanic Garden in Gladwyne, Pennsylvania, about 1,000 miles north of its current natural range.

Its popularity with gardeners is due to its manageable size in residential landscapes, coupled with its tendency for flowering at a young age. Garden plants average well under 30 feet in height and width at maturity, and may express themselves as gangly, single-trunked shrubs or small trees. The long, thick, often contorted branches are highly attractive in both winter and summer, and the large leaves add tropical flair to temperate gardens. Ashe magnolias produce their first flowers in as little as two years from seed. Ashe magnolia occurs in nature in the understory of shady woodlands, but it performs very well in sunny openings and is most enjoyed as a specimen tree to showcase its large leaves and oversized flowers.

Ashe magnolia is closely related to bigleaf magnolia (M. macrophylla, Zones 6–9, 9–6); indeed, some experts consider it a variety of its slightly larger-leaved cousin. The two are well separated in natural range, but are very attractive when planted near one another in the garden. Bigleaf becomes much larger—to at least 50 feet tall—and is more tree-like at maturity. However, it takes much longer to reach flowering age. Reports of 10 to 15 years from seed to first flower are common. When grown in sun, it takes on a full form with a wide, attractive crown. Phil Normandy, plant curator at Brookside Gardens in Wheaton, Maryland, is particularly fond of a grouping of three bigleaf magnolias at a satellite garden of Brookside. “Originally these trees

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Resources


were planted in partial shade, but now they are growing in more or less full sun,” says Normandy. At more than 30 feet tall, they offer a very dramatic look.”

Umbrella magnolia (M. tripetala, Zones 4–9, 9–5) also has large leaves—up to at least 20 inches long and 10 inches wide that taper to a point at the base, unlike the slightly lobed leaf base of bigleaf and Ashe magnolia. The flowers have six to 12 tepals and are about eight inches wide. Most umbrella trees top out at less than 50 feet tall and may form erect, single-trunked trees or very large multi-stemmed shrubs. The common name stems from the spreading leaves, which tend to radiate laterally from the branch tips, creating an umbrellalike canopy. Umbrella magnolia grows naturally from southeastern New York southward to the Florida panhandle (where only a few populations are known), and west to Arkansas. It is adaptable and easy to grow in the garden and flowers best in light shade to full sun in rich, moist soils. It is most at home in a naturalistic woodland garden, but single-trunked forms serve well as specimen trees in more open landscapes.

Mountain magnolia (M. fraseri, Zones 4–9, 9–6), an endemic species of mountain coves and rich woods of the southern Appalachians, has moderately large leaves and elegant, fragrant white flowers. Its native range is from West Virginia into eastern Kentucky and Tennessee, and southward to northern Georgia. Reported to be more demanding to grow than other native deciduous magnolias, it grows best in moist, acid soils and thrives alongside streams. The pyramid magnolia (M. pyramidata, Zones 7–9, 9–7), considered by some to be a variety of mountain magnolia, is a coastal plains counterpart ranging mostly east and south of the Piedmont.

FLOWERS, FRUIT, AND POLLINATORS

The magnolias’ ancient affinities are most evident in the structure of their flowers and fruit. Unlike many perfect flowers, which feature clear division of sepals, stamens, and pistils, magnolia flowers consist of various parts that are often difficult to tell apart. Numerous stamens and pistils spiral around an erect central axis subtended by a whorl of creamy white petallike structures. In most species the petals and sepals are so similar that experts refer to them as “tepals,” a botanical catchall term that serves where precise morphological language fails.

Magnolia flowers are protogynous, which means that the pistil of an individual flower becomes receptive (matures) before that flower’s stamens release their pollen. Their primary pollinators are beetles, which apparently co-evolved with the genus in an intriguing pollination mechanism. In bud, magnolia flowers are covered by a fuzzy bract that encircles and protects the developing bloom. The stigmas become receptive just before the flower opens, requiring the beetles to squeeze or chew their way through the thick fleshy tissue to get to the stigmas and stamens. In smaller-flowered species, the flowers open only partly during the first day, close during the evening, and reopen the second day to shed pollen and drop their stamens. The larger-flowered forms often remain at least partially open throughout pollination.

Magnolia fruits are often described as cones, which is not technically accurate. True cones, with unprotected ovaries and overlapping scales, are the purview of the conifers. The magnolia fruit, on the other hand, is a follicle—a capsulelike pod that derives from a single ovary and splits at maturity along a single seam. Since each magnolia flower has many ovaries, it produces multiple follicles that are clustered to form attractive conelike structures. At maturity the follicles open to expose showy red seeds that dangle on thin colorful threads reminiscent in function and structure to an umbilical cord. The colorful seed coat—technically an aril—encases and protects the developing embryo.

—G.N.
Yellow flowers on trees are one of the “holy grails” of horticulture, so it’s not surprising that the cucumber magnolia (*M. acuminata*, Zones 4–9, 9–2), with its greenish yellow flowers, has been of particular interest to plant breeders. Named for the shape of its young fruiting “cones,” cucumber magnolia is the hardiest and most widespread of the American magnolias, ranging from a small population in the Florida panhandle north to the Canadian side of Lake Erie. It can grow to more than 100 feet high, making it one of the tallest deciduous native magnolias. Its leaves grow to eight inches long, tapering to a point. The best yellows are produced by the smaller, less widespread, and less hardy yellow cucumber magnolia (*M. acuminata* subsp. *subcordata*, Zones 7–9, 9–7).

Yellow cucumber magnolia has been used by breeders to develop popular yellow-flowered magnolia hybrids such as ‘Gold Star’, left, and ‘Butterflies’, above.

CARING FOR NATIVE MAGNOLIAS

Most magnolias thrive in slightly acidic, well-drained soil with a pH of 5.5 to 6.5. Evergreen species usually grow best in full sun, while the deciduous species are better suited to part shade, especially in warmer regions.

Early fall is the best time to plant magnolias. Dig a hole about twice the width of the rootball but not much deeper. Gently agitate and spread the roots along the edges of the container ball; magnolias have tender roots but it helps to spread them a little before planting. Leave the top of the root ball about an inch above ground level and fill the remaining void with the rest of the excavated soil.

Magnolias have shallow root systems, so add a layer of mulch around the base of the tree. They also have thin bark, so avoid mechanical weed trimming or other activities that might injure the bark, providing an entry point for pathogens.

Water newly planted trees regularly until they are well established, but aside from that, little supplemental irrigation should be needed except during droughts. Avoid overwatering because most magnolias are prone to root rot.

Magnolias generally need little pruning other than to remove crossed branches or for other cosmetic purposes. (For information on propagating native magnolias, click on a web special linked to this article on the AHS website at www.ahs.org).

LONG-LASTING BEAUTY

Regardless of which species you choose, native magnolias add a distinctive charm to gardens through all four seasons and, in most cases, over a long lifespan. The leaves range from lush and tropical-looking on the deciduous species to glossy and two-toned on the evergreen magnolias. Their attractive forms and showy, fragrant flowers are, in my opinion, unsurpassed among America’s native trees. And in late summer and fall the sculptural fruits and bright red seeds add their own decorative touch.

Gil Nelson is an author, photographer, and botanist based in Georgia. His next book, a guide to native plants for southern gardens, is scheduled for release in 2010.