



MAPLE (*Acer*) Genus Overview

The genus *Acer*, commonly known as the maples, is an extremely diverse group of trees containing over 120 species of various size and habit. Maples are found throughout the northern hemisphere, but exhibit a significant native presence in eastern North America and Eastern Asia. Easily identified by oppositely arranged leaves and winged fruit known as samaras, maples are popular ornamentals due to their variety of growth habits, cultural adaptability, cold hardiness, and colorful foliage. Their widespread representation in both residential and commercial landscapes ranges from the most delicate varieties of *Acer palmatum* (Japanese Maple) to tough, utilitarian species well-suited to street plantings in urban environments.

1: *Acer griseum*

The Paperbark Maple (*Acer griseum*) has long been considered an aristocrat among the many choices in small ornamental trees. Its claim to fame is undoubtedly the curious display of peeling bark that defines the familiar term “winter interest”. The trunk and older stems exfoliate into curled sheets of glowing amber to cinnamon brown. This outstanding trait, coupled with impressive adaptability and hardiness to USDA Zone 5, has made it a sought-after landscape specimen since it was first introduced from China in 1901. In addition, slow growth and a reputation for producing a dismal percentage of viable seeds have combined to keep gardeners’ demand well above growers’ supply. Paperbark Maple is also the flagship member of the “trifoliate” group of maples—leaves consist of three individual leaflets. This trait results in a curiously “unmaplelike” appearance to the casual observer. Each fall cements the status of Paperbark Maple as a plant of true multi-seasonal appeal. Cooler temperatures trigger a transition to fiery oranges and reds that rival any ornamental tree. Maturing at 20-30 feet tall, this fine maple is an excellent choice for that prime spot along the border or near the patio. The UDBG features two large specimens. One is located in the Clark Garden along South College Avenue and the other grows on the north side of Worrilow Hall.

2: *Acer leucoderme*

The Chalkbark Maple (named for its prominent light-colored bark in youth) is generally considered to be a southern variant of the well-known Sugar Maple (*Acer saccharum*). In fact, some authorities relegate the tree to no more than a geographic subspecies of its more northerly cousin. Regardless of taxonomic discord, this uncommon maple deserves wider attention for its comparatively compact stature and inherent tolerance of heat and drought. Unlike Sugar Maple, the Chalkbark Maple grows relatively slow and matures at only 30 feet tall, making it an ideal candidate for smaller gardens or use as a street tree. Our plant at the UDBG (Accession #90-103*1) has reached a height of nearly 25 feet at approximately 25 years of age and exhibits a dense, rounded crown. Since it occurs as an understory species across much of the southeastern

United States, from the Piedmont of North Carolina to northern Florida and eastern Texas, it is unfazed by extreme summer heat and occasional drought. Here in the Mid-Atlantic, it would be an excellent replacement for Sugar Maple, which is truly happiest in northern New England and southern Canada. The dainty leaves measure only 2-4 inches long, but put on a collectively striking show each autumn with a mix of bright orange to glowing red.

3: *Acer rufinerve* ‘Albolimbatum’

Acer rufinerve, or Redvein Maple, is a rare tree in its own right, but the unique foliage of ‘Albolimbatum’ deserves recognition as a true collector’s item. Hailing from the mountain forests of Japan, the species is closely related to our native Striped Maple or Moosewood (*Acer pensylvanicum*) and features young stems of bright green with conspicuous white striations. In fact, the group is collectively termed the “Snakebarks” in horticultural circles. Redvein Maple is much easier to cultivate than its American counterpart, which is most at home on rocky, mountainous ridges or cool Appalachian coves. In general, though, all of the “Snakebark” maples appreciate a fair amount of shade in this area, and will reach approximately 20 feet tall at maturity. ‘Albolimbatum’ (sometimes regarded as *A. rufinerve* forma *albolimbatum*) is an attractive variegated form exhibiting leaves mottled with irregular creamy white specks and a thin, similarly colored border on each leaf. The exquisite foliage of ‘Albolimbatum’ can add the delicate drama needed to liven up the shadiest corner of any garden. Fall color is generally an interesting mix of gold, orange and purple-red. At the UDBG, our specimen (88-80*1) grows happily in the shade of a large Tuliptree (*Liriodendron tulipifera*) and Honeylocust (*Gleditsia triacanthos* var. *inermis*) just outside the west entrance to Worrihow Hall.

4: *Acer pentaphyllum*

Acer pentaphyllum is an exceedingly rare plant with an intriguing history that mimics that of many Asian introductions to Western horticulture. The species was first documented in its native China by the Austrian botanist Joseph Rock in 1929. About a decade later, a small specimen (given to Rock by Chinese professor T.T. Yu) made its way to the Strybing Arboretum in San Francisco. Over the following decades all *A. pentaphyllum* in cultivation were derived from this tree, thus creating an undesirably narrow pool of genetic diversity. The second of two younger trees derived from the original Strybing plant died in 1991, and no new Chinese collections had been made since those provided by Yu in the late 1930’s. Enter Bill McNamara of Quarryhill Botanical Garden in Glen Ellen, California. In 1992, McNamara was fortunate enough to receive new seeds of *A. pentaphyllum* from a Chinese colleague. Astonishingly, these represented the first wild-collected material to reach the United States in over 50 years. We are grateful that our plant (06-18*1) undoubtedly comes from nursery-propagated descendants of these seeds—only the second recorded introduction of this rare maple. Like other threatened Chinese species, *A. pentaphyllum* faces extinction due to deforestation, livestock grazing and encroaching development. In 2001, Bill McNamara and his travel companions were able to observe the last known stand of *A. pentaphyllum* in its native Sichuan Province. His story illustrates the vital role of botanical gardens in preserving endangered plants of all kinds. Residing in the northern protected courtyard behind Townsend Hall, this specimen is easily identified by its deeply lobed foliage and shrubby habit which imparts an airy, bamboo-like appearance. With further promotion and distribution efforts, it may have a promising future as a beautiful addition to American gardens.

5: *Acer saccharum* ‘Newton Sentry’

The distinctive, spire-like tree that towers over the hollies (*Ilex* spp.) just north of Fischer Greenhouse is ‘Newton Sentry’ Sugar Maple. Planted in 1958, it has matured to a height of nearly 60 feet but boasts a width of only 18 feet through the upper crown. ‘Newton Sentry’ has long been a choice plant for creating a dramatic vertical statement in the landscape, but is also one of the few large trees suitable for extremely narrow planting areas. The cultivar was first discovered as a freak mutation (the source of many horticultural gems!) in the Newton (Mass.) Cemetery and was introduced to the nursery trade around 1885. Well over a century later, the original tree still stands near the cemetery entrance. Modern “Cyber” Plant Hunters can even attempt to locate the Newton specimen via Google Street View. Like typical *Acer saccharum*, the rich green summer foliage transitions to bright yellow or blazing orange by late October. The winter branching habit might appear rather harsh to some, but not to the knowledgeable maple enthusiast.

Works Cited

Dirr, Michael. (2009). *Manual of Woody Landscape Plants* (6th Ed). Champaign, IL: Stipes Publishing LLC..

Ward, Bobby J. (2004). *The Plant Hunter’s Garden: The New Explorers and their Discoveries*. Portland, OR: Timber Press.

**Please reference Maple Featured Selections Map pdf
for locations of these Maples at UDBG.**