**Acer negundo** L.  
(*Acer californicum, Acer californicum var. texanum, Acer fauriei, Acer interius, Negundo californicum, Negundo aceroides, Negundo californicum, Negundo fraxinifolium, Negundo mexicanum, Negundo negundo, Rulac texana*)

**Other Common Names:** Arce, Ashleaf Maple, Red River Maple, Three-Leaved Maple, Manitoba Maple, Western Boxelder.

**Family:** Traditionally placed in the Aceraceae, some taxonomists have now merged these taxa within the Sapindaceae.

**Cold Hardiness:** Boxelder can withstand tremendously cold temperatures, to USDA hardness zone 2, and are also able to thrive in the heat of the Deep South’s zone 9; regional native provenances would probably provide better adaptability.

**Foliage:** Deciduous, opposite, pinnately compound leaves are light green maturing to a medium green or are sometimes variegated on cultivars; most leaves are trifoliate or have five leaflets, but some genotypes have pinnately compound leaves with as many as nine leaflets and range from 5” to 8” long; ovate leaflets are 2” to 4” long and 1½” to 2½” wide with acute to acuminate tips and are coarsely tooth or even shallowly lobed at the bases, particularly on the terminal leaflet; leaves emerge with tomentose pubescence; sometimes a pale yellow fall color develops, but leaves often fail to develop fall color; petioles are 2” to 3” long and slender, often swollen and more pubescent at the base.

**Flower:** Interestingly *A. negundo* is dioecious while most other species of *Acer* have perfect flowers, are monoecious, or are polygamo-dioecious; the small spring flowers are yellow-green and not particularly showy but the drooping racemes of female flowers may be noticeable before the foliage emerges; male flowers are less noticeable in small clusters on slender peduncles.

**Fruit:** Axillary racemes of samaras are produced in profusion on female trees in late summer to fall and *A. negundo* can quickly become a weed problem; 1½” to 2” samaras are borne in pairs down the chain-like raceme, each pair vaguely resembling tiny upside down mouse antlers; the base is a ½” long nutlet with an arched membranous wing; samaras are 1” to 1½” long.

**Stem / Bark:** Stems — twigs, although stout for a maple, are still fairly slender compared to other types of trees; green and nearly glabrous to slightly hairy; often glaucous; scratched or crushed stems are malodorous; Buds — the 1/8” long terminal buds are acute while laterals are smaller and more obtuse; Bark — initially smooth the light gray-brown bark is initially shallowly fissured, becoming more deeply furrowed and darker in color with age.

**Habit:** Boxelder develops a short stout trunk that branches relatively low and is topped with a spreading rounded to oval crown; trees may occasionally be multi-trunk; unfortunately crown shapes tend to irregularity in outline; typically maturing at 40’ to 50’ (80’) tall in Central and East Texas, *A. negundo* is smaller in West Texas and the Panhandle; in mesic environments *A. negundo* becomes a medium size tree, while in more demanding sites it remains a small tree; overall textures are medium to medium coarse and trees tend not to age well.

**Cultural Requirements:** Boxelder is tolerant of a huge range of site conditions; it is moderately drought tolerant; so easily grown *A. negundo* has become an invasive species in many areas where it is not native and weedy where it is native; this species can tolerate less than perfect drainage for short periods of time, as it is frequently found in nature growing in floodplain areas; Boxelders are more pH adaptable than most *Acer spp.*; although *Acer negundo* is a very rapid grower, the wood is weak and susceptible to storm and ice damage.

**Pathological Problems:** *Acer negundo* is afflicted by the same disease and pest problems as other species of *Acer*; Boxelder is particularly susceptible to the Boxelder Bug (*Leptocoris trivittatus*) on female trees, various trunk borers, and cotton root rot (*Phymatotrichum omnivorum*); leaf miners can be persistent nuisances locally; the Boxelder Bug seldom seriously injures the tree but can invade homes in masses in autumn in a search for winter shelter.

**Ornamental Assets:** Adorned with few ornamental assets aside from adaptability, *A. negundo* can at times form a decent rounded crown tree with a bit of training; it tolerates relatively low oxygen soils; seeds are a wildlife food and deer browse the foliage of young trees; trees assist with erosion control along water courses.

**Limitations & Liabilities:** Boxelder is generally short-lived and prone to damage from a number of pests; the...
foliage is not particularly attractive in the species type; a couple of variegated cultivars are available with more ornamental interest, but these tend to scorch in the Texas sun; the thin bark is susceptible to mechanical and herbicide damage; Boxelder is 2,4-D herbicide sensitive.

**Landscape Utilization:** Usefu in difficult sites as a short-term fast growing shade tree and has become popular in the central Plains and parts of the western USA for this purpose; this natural invader of disturbed sites is a good nursery tree for better long term forest trees and provides shelter and seeds for wildlife; it can also be useful in erosion control; it is sometimes used for small timber needs, but the wood is generally of poor quality; Boxelder was once widely planted for erosion control and in shelter belts on the Central Plains.

**Other Comments:** Boxelder is widely considered a trash tree and is best reserved for very adverse sites where better trees will not grow; growth habits and forms are variable which should not be surprising given the extremely wide distribution and diverse habitats within its native range; the specific epithet alludes to the vague resemblance of the leaves to those of *Vitex negundo*, although frankly one would have to look at them just right or in a state of confusion to come to this conclusion; a poor grade of maple syrup substitute, call mountain molasses, is sometimes made from the sap of *A. negundo*; interestingly seedlings of *A. negundo* tend to resemble the foliage of mature shrub forms of Poison-Ivy (*Toxicodendron radicans*), but is easily distinguishable by the phyllotaxy being opposite on *A. negundo* and alternate on *T. radicans*.

**Native Habitat:** Boxelder is one of the most widely distributed trees in North America; it is native to Texas, being a much smaller tree in the drier western portions of the country than in the moister eastern regions; Boxelder has naturalized in many temperate regions around the world where it has become a weed.

**Related Taxa:** The most popular cultivars of *A. negundo* are those with variegated foliage such as ‘Variegatum’ or ‘Argenteovariegatum’ which has white margins and new leaves may emerge pinkish; interestingly even the fruit of ‘Variegatum’ are variegated with a creamy yellow to white color; ‘Aureo Variegatum’ has more creamy yellow to greenish yellow margins compared to ‘Variegatum’; as with most variegated plants, under strong light and high temperatures the variegation may either burn or fade; seedless selections and those with better fall color, even reputedly red are reported and may be better choices than the species type.

**Acer griseum** (A.R. Franchet) F.A. Pax

• *Paperbark Maple*

(Acer leiopodium, Acer nikoense var. griseum, Acer pedunculatum, Acer shensiense, Acer triflorum subsp. leiopodium, Acer triflorum var. leiopodium, Acer zhongtianoense, Crula grisea)

• Paperbark Maple, also known as Chinese Paperbark Maple, is a beautiful small round to oval crowned deciduous tree native to China; although the 20’ to 30’ tall trees are usually stoutly single trunked, they often branch low which permits more bark to be shown to advantage; the papery sheaths of shiddy cinnamon colored bark are the key asset for this species and it is arguably among the most attractive barked species of trees; this characteristic begins on small limbs and continues through old age creating truly remarkable old specimens.

• The dark green trifoliate leaves are attractive in summer and often develop excellent red to red-orange fall colors in cooler climates; fall color is variable among seedlings and is less reliable in warmer climates; leaves are dark green above and whitish beneath; the specific epithet means gray in Latin in reference to the underside of the leaves; leaflets are usually narrower than those of the typical *A. negundo*; twigs are fine textured and the tree has an overall medium-fine to medium texture; fruit are the typical paired samaras of the genus, but for some reason have low viability from trees grown in culture.

• Difficulty of propagation and slow growth limit Paperbark Maple’s availability in the nursery industry; once established the tree is fairly durable, although afternoon shade is useful in warmer regions; while *A. griseum* will grow in USDA hardiness zones 5 to 9, it does best in mesic climates, suffering in the more xeric central and western portions of our region; extreme Northeast Texas, extreme eastern Oklahoma, Arkansas and northern Louisiana would be the better bets regionally for successful culture; well drained neutral to acidic soils that are not severely droughty and good quality irrigation water should be provided; trees are salt intolerant.

• Where *A. griseum* can be grown effectively it ranks among the most desirable of small trees for use as an accent, patio specimen or night lighting focal point; the bark, trunk, and branching silhouette are fantastic against a new snow, much like *Betula nigra* making it a highlight of the winter garden; alas it is a connoisseur plant reserved for use in milder portions of our region.

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