

Acer saccharum - Sugar Maple or Rock Maple (*Aceraceae*)

Acer saccharum is a stately shade tree with excellent autumn color. Sugar Maple is a common shade tree in the Eastern U.S., the national tree of Canada, and a climax forest tree in New England, where it is sometimes tapped for maple syrup. It is also prized for its high quality wood in furniture making.

Form



FEATURES

- large deciduous tree
- maturing at 60' tall x 40' wide in urban areas, but larger under more favorable conditions such as the northeastern forests of the U.S.
- upright oval growth habit in youth, becoming more upright rounded with age
- medium growth rate

Culture

- full sun to full shade, but best in full sun
- prefers cool, moist summers in deep, well-drained, moist, slightly acidic soils
- not tolerant of extreme heat, drought, thin soils, or soil compaction
- prone to branch dieback (due to drought or *Verticillium* wilt) under stressful conditions
- abundantly available with many cultivars, usually in B&B form

Foliage



- opposite arrangement, with medium green to dark green leaves
- the stereotypical Maple leaf foliage (as shown on the reverse of a Canadian coin)
- 5-lobed, the basal 2 smaller than the upper 3, with each of the 3 upper lobes incised but not serrated

-palmate venation, with blades about 5" long and wide
-the leaves are often slightly curved downwards when viewed on a horizontal plane (contrasts with the flatter appearance of the Norway Maple)

-dense foliage on twigs

-autumn color yellow, orange, and/or red, sometimes undergoing this transition sequence during prolonged autumn coloration, usually striking due to the size of mature trees

Flowers

-pendulous inflorescences in Apr. (before the foliage), yellow-green, waving in the breeze, and giving the tree a very fine-textured lime appearance in early spring

Fruits



- 2 samaras (each 1.5" long) per stalk, having parallel wings
- medium green, in pendulous clusters from the stems, maturing to brown in Oct.

Twigs

- brown-red and lenticled, with small dark brown or gray buds in winter

Trunk

-light brown to light gray branches becoming brown, gray, or black trunks, fissuring in youth to yield large, irregular plates with age, sometimes with orange interiors. Larger plates on the trunk distinguish this species from the similar Norway Maple, whose bark is more furrowed than platy

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Function

-shade, specimen, or autumn accent tree (but not a good street tree, due to size, surface roots, and urban intolerance)

Texture

-medium texture in foliage and medium-fine when bare
-thick density in foliage and when bare

Assets

- dense summer shade
- brilliant autumn color that often has a sequence of different bright colors
- platy bark in old age
- wildlife attraction (squirrels and birds will eat samaras in winter)
- shade tolerant (in youth)
- symmetrical winter branching

Liabilities

- shallow root system surfaces with age
- leaf scorch, leaf tatter, and branch dieback in hot, dry summers
- prone to *Verticillium* wilt
- sometimes has frost cracks but not as severe as Norway Maple
- often a choice of sapsuckers but recovers from the winter bird wounding
- slow establishment in urban conditions
- not urban tolerant, especially to root disturbance, soil compaction, or soil backfill

Habitat

- Zones 4 to 8
- Native to Eastern U.S. and Southern Canada

SELECTIONS

Alternates

- large shade trees (*Betula nigra*, *Corylus colurna*, *Fraxinus americana*, *Quercus rubra*, *Zelkova*, etc.)

-shade trees with

excellent autumn color (*Acer rubrum* October Glory®, *Betula lenta*, *Fraxinus pennsylvanica* Cimmarron®, *Nyssa sylvatica*, *Quercus coccinea*, *Ulmus parvifolia*, etc.)

Cultivars – Variants – Related species

-*Acer saccharum* 'Green Mountain' - the standard cultivar for heat and drought tolerance, with thicker waxy leaves (resulting in less leaf scorch and less leaf tatter); yellow autumn color predominates, with elements of red and orange; 70' x 45'

-*Acer saccharum* 'Legacy' - even better heat and drought tolerance and leaf thickness, having red, orange, and/or yellow autumn color, maturing at 50' x 35'; also has better humidity tolerance and a fuller crown at maturity

-*Acer saccharum* 'Wright Brothers' - grows twice as rapidly as the species form, having a more pyramidal shape and mixed autumn color

