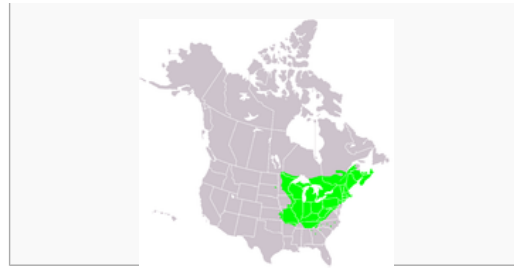


- Esperanto
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- Italiano
- Kaszëbsczi
- Latviešu
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- 日本語
- Polski
- Português
- Русский
- Slovenščina
- Suomi
- Svenska
- Українська

same time. There is also a tendency, as there is also with [Red Maples](#), for certain parts of a mature tree to change color weeks ahead of or behind the remainder of the tree. The leaf buds are pointy and brown colored. The recent years growth twigs are green, and turn dark brown.



The [flowers](#) are in [corymbs](#) of 5-10 together, yellow-green and without petals; flowering occurs in early spring after 30-55 [growing degree days](#). The [fruit](#) is a double [samara](#) with two winged [seeds](#), the seeds are globose, 7-10 mm diameter, the wing 2-3 cm long. The seeds fall from the tree in autumn.

It is closely related to the [Black Maple](#), which is sometimes included in this species but sometimes separated as *Acer nigrum*. The western American [Bigtooth Maple](#) (*Acer grandidentatum*) is also treated as a variety or subspecies of Sugar Maple by some botanists.

The Sugar Maple is also often confused with the [Norway Maple](#), though they are not closely related within the genus. The Sugar Maple is most easily identified by clear sap in the leaf [petiole](#) (the Norway Maple has white sap), brown sharp-tipped buds (the Norway Maple has blunt green or reddish purple buds), and shaggy bark on older trees (the Norway Maple bark has small grooves). Also, the leaf lobes of the Sugar Maple have a more triangular shape, in contrast to the squarish lobes of the Norway Maple.

A red [maple leaf](#) is featured on the [flag of Canada](#). Maple leaves are prominent on the [Arms of Canada](#).

Contents [hide]

- [1 Ecology](#)
- [2 Cultivation and uses](#)
- [3 Gallery](#)
- [4 References](#)
- [5 See also](#)
- [6 External links](#)

Ecology

[[edit](#)]

The Sugar Maple is an immensely important species to the ecology of many forests in North America. Pure stands are common, and it is a major component of many forest types. It often forms associations with the [American Beech](#), forming the [beech-maple forest](#) type, common in northern areas. Other associations

include Sugar maple-[yellow Birch](#) (which is most important beyond the northern limit of beech), Sugar Maple-[American Basswood](#), Sugar Maple-[White Ash](#) and Sugar Maple-[Ironwood-Red Oak](#). Sugar Maples engage in [hydraulic lift](#), drawing water from lower soil layers and exuding that water into upper, drier soil layers. This not only benefits the tree itself but also many other plants growing around it.^[5]

Sugar Maple is among the most [shade tolerant](#) of large deciduous trees. Among North American maples its shade tolerance is exceeded only by the [Striped Maple](#), a smaller tree. Like other maples, its shade tolerance is manifested in its ability to germinate and persist under a closed canopy as an understory plant, and respond with rapid growth to the increased light formed by a gap in the canopy. The sugar maple can grow comfortably in any type of soil, except sand.

Human influences have contributed to the decline of the Sugar Maple in many regions. Its role as a species of mature forests has led it to be replaced by more opportunistic species in areas where forests are cut over. The Sugar Maple also exhibits a greater susceptibility to pollution than other species of maple. [Acid rain](#) and [soil acidification](#) are some of the primary contributing factors to [maple decline](#). Also, the increased use of salt over the last several decades on streets and roads for de-icing purposes has decimated the sugar maple's role as a "street-front" tree.

In some parts of eastern North America, particularly near urbanized areas, the Sugar Maple is being displaced by the [Norway Maple](#). The Norway Maple is also highly shade tolerant, but is considerably more tolerant of urban conditions resulting in the Sugar Maple's replacement in those areas heavily disturbed by human activities.

Cultivation and uses

[\[edit\]](#)

The Sugar Maple is one of the most important [Canadian trees](#), being (with [Black Maple](#)) the major source of sap for making [maple syrup](#); Sugar Maple being regarded as slightly better. Many maples can be used as a sap source for maple syrup, but none of the others are considered as good as these two.

The [wood](#) is one of the hardest and densest of the maples (being 740kg per cubic meter^[6]), and is prized for furniture and flooring. [Bowling](#) alleys and bowling pins are both commonly manufactured from sugar maple. Trees with wavy wood grain, which can occur in curly, quilted and "[birdseye maple](#)" form, are especially valued. Maple is also the wood used for basketball courts, including the floors used by the NBA, and it is a popular wood for baseball bats, along with [white ash](#). It is also widely used in the manufacture of musical instruments, such as the members of the violin family (sides and back) guitars (neck) and drum shells.

Canadian Maple, often referred to as "Canadian Hardrock Maple", is prized for pool cues, especially pool cue shafts, and the highest grades of this white wood are used by virtually all (both production line and custom

hand-made) cue makers to make high-quality shafts. Some production-line cues will use lower-quality Canadian Maple wood with cosmetic issues (such as "sugar marks", which are (most often) light brown discolorations that are visible on the shaft, caused by sap from the wood. Great shaft wood has a very consistent grain, and no marks or discoloration. Sugar marks usually don't hurt anything and do not affect how the cue plays, but are not as high of quality as those without it.)

The Sugar Maple is a favorite street and garden tree, because it is easy to propagate and transplant, is fairly fast-growing, and has beautiful fall color. The shade and the shallow, fibrous [roots](#) may interfere with grass growing under the trees. Deep well-drained [loam](#) is the best rooting medium, although Sugar Maple can grow well on sandy soil which does not become excessively dry. Light (or loose) clay soils are also well known to support Sugar Maple. Poorly drained areas are unsuitable and the species is especially short-lived on flood-prone clay flats. Its salt tolerance is low and it is very sensitive to [boron](#).

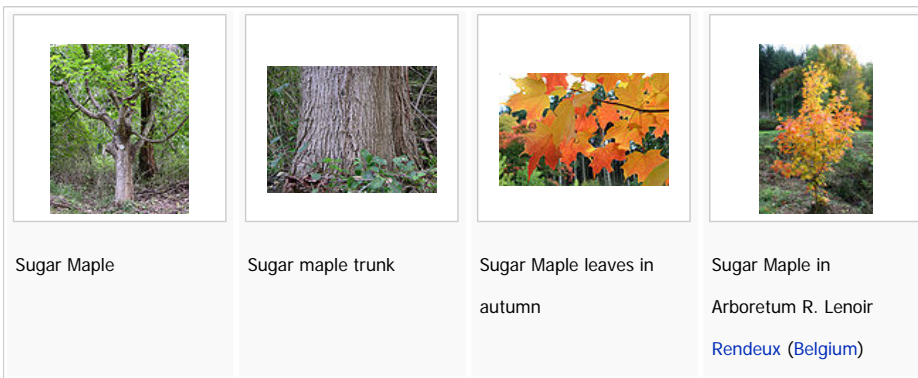
Cultivars

- 'Apollo' - columnar.
- 'Arrowhead' - pyramidal crown.
- 'Astis' (*Steeple*) - heat-tolerant; good in southeastern USA. Oval crown.
- 'Bonfire' - fast-growing.
- 'Caddo' - naturally occurring southern ecotype. Great drought and heat tolerance, good choice for the Great Plains region.
- 'Columnare' ('Newton Sentry') - very narrow.
- 'Fall Fiesta' - tough-leaved, colorful in season, above-average hardiness.
- 'Goldspire' - columnar with yellow-orange fall color.
- 'Green Mountain' (PNI 0285) - durable foliage resists heat and drought; oval crown; very hardy (cold tolerance may match 'Unity').
- 'Legacy' - tough, vigorous and popular.
- 'Monumentale' - columnar.
- 'Sweet Shadow' - lacy foliage.
- 'Temple's Upright' - almost as narrow as 'Columnare.'
- 'Unity' - one of hardest cultivars, from [Manitoba](#) source.

Sugar Maple is the [State Tree](#) of [New York](#), [Vermont](#), [West Virginia](#) and [Wisconsin](#).

Gallery

[\[edit\]](#)



References

[\[edit\]](#)

- ↑ Germplasm Resources Information Network: *Acer saccharum*
 - ↑ Northern Ontario Plant Database: *Acer saccharum*
 - ↑ Oklahoma Biological Survey: *Acer saccharum*
 - ↑ GSMNP tall trees
 - ↑ Hydraulic lift and its influence on the water content of the rhizosphere: an example from sugar maple, *Acer saccharum*
 - ↑ Hard Maple published by Niche Timbers
- Horton, J. L., & Hart, S.C. (1998). Hydraulic lift: a potentially important ecosystem process. *Trends in Ecology and Evolution* 13 (6): 232-235.
 - Canham, C. D. (1989). Different Responses to Gaps Among Shade-Tolerant Tree Species. *Ecology* 70 (3): 548-550.
 - Brisson, J., Bergeron, Y., Bouchard, A., & Leduc, A. (1994). Beech-maple dynamics in an old-growth forest in southern Quebec, Canada. *Ecoscience* (Sainte-Foy) 1 (1): 40-46.
 - Duchesne, L., Ouimet, R., & Houle, D. (2002). Basal Area Growth of Sugar Maple in Relation to Acid Deposition, Stand Health, and Soil Nutrients. *Journal of Environmental Quality* 31: 1676-1683.

See also

[\[edit\]](#)

- [Comfort Maple](#)

External links

[\[edit\]](#)

- [UI Plants: Woody Ornamentals \(sugar maple\)](#)
- [USDA Plants Profile: *Acer saccharum*](#)

- [Acer saccharum](#)

[Silvics Manual](#)

- [Acer saccharum](#)

- [Acer saccharum](#)

- [Winter ID Pictures](#)

in [Godman, Yawney and Tubbs. US Forest Service](#)

at [Ohio State Horticulture & Crop Science](#)

images at [bioimages.vanderbilt.edu](#)



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saccharum*

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