

The Wonders of the Versatile Sugar Maple

by Carolyn R. Casey, Fairfax Master Gardener

Have you been looking to add some beautiful and colorful foliage to your landscaping to enjoy in the fall? Then the Sugar Maple with its beautiful yellow, orange and red leaves is what you have been looking for. Sugar Maple (*Acer saccharum*) is also known as Hard Maple, Leucoderme, Northern Sugar Maple, Rock Maple and Sugar Maple. The strength of the wood is reflected in its genus name *Acer* (Latin for sharp), a reference to how the ancient Romans used maple to make handles for their spears. *Saccharum*, Latin for sugar, refers to the high sugar content in the species sap. The Sugar Maple is a native deciduous tree that is found in the eastern and central United States. It grows in Zones 3a to 8b.

A Sugar Maple likes soils that are rich in magnesium, iron and lime and likes well drained slightly acidic fertile soil with a pH of 3.7 to 6.5. It likes sandy, loamy sands, loams, silt loams or clay loam soils. It does not grow well in dry, shallow soils and rarely in swamps. Sugar Maples like part shade to full sun and will tolerate average well drained soils in sunny to part shade areas. It does not like compacted soils, high heat, air pollution and road salts. It needs very little care when planted in the right place.

A Sugar Maple may grow to be 100 feet tall and is a slow to medium growing tree that needs plenty of room to grow. It may be found in forest and woodlands alike, and it has a rounded or oval canopy that may reach 80 feet across and provides deep shade. This makes it an excellent shade tree for your yard. It has dark green leaves that are 3 to 6 inches long with five lobes and toothed edges that turn golden yellow, orange, red or burgundy in the fall. The beautiful fall colors make it a great specimen tree for your yard.



photo: University of Minnesota



photo: Virginia Tech Dendrology

Sugar maple flowers

The Sugar Maple usually do not bloom until it is at least 22 years old. It reaches full bloom one to two weeks before the leaves emerge. The flowers are polygamous, occurring over the entire crown. The pollination of flowers happens freely and without the aid of insects. It has both male and female flowers that are gold to yellow and green in color that bloom in the spring and summer. It has edible fruit that is less than 1 inch long that has a brown copper or green color. The Sugar Maple's bark is furrowed and scaly and is dark brown to dark gray or a light gray color.

Sugar Maples must reach maturity before they can be tapped for syrup, and this could take 30 to 40 years. A Sugar Maple is tapped in late winter to make maple syrup. Depending on the diameter of the tree's trunk, it may be tapped three times. On average, you may get 10 gallons of sap per tap. To make maple syrup, the sap is collected and concentrated by boiling it or by reverse osmosis. It takes 50 gallons of sap to make 1 gallon of syrup. The best sap comes from Sugar Maple trees that are planted in areas where the night time temperatures are below freezing and the day time temperature is higher than 41 F. Never tap a Sugar Maple after the buds have appeared. Sugar Maple trees may live to be 300 to 400 years old.

Native Americans and European settlers used the Sugar Maple tree as a source of sweetener. Native Americans used the sap to make candy, as a beverage, in beer (fresh and fermented) and to cook meat. Because it is a hard wood, it can also be used to make furniture.

The Sugar Maple attracts pollinators like moths and butterflies to their flowers, while song birds and small mammals eat the seeds. Some birds make their nests in the cavities of the Sugar Maple. It supports Imperial Moth larvae that appear from April to October.

If your yard cannot accommodate a large Sugar Maple, then consider one of its cultivars, as follows. 'Bonfire' is a fast growing cultivar. It has a rounded crown with broad shiny leaves that turn bright orange, yellow and red in the fall. It is fast growing and may grow 50 feet tall and is heat tolerant.



photo: University of Minnesota

Sugar maple leaves

'Commemoration' has a dense oval to round form with dark green leaves that turn beautiful yellow, orange and red colors in the fall, 10 to 14 days before the species. It is a fast grower and may grow to be 50 feet tall and 35 feet wide.

'Green Mountain' is a drought tolerant cultivar that also tolerates the heat and is scorch resistant. It has dark leathery leaves that turn golden to scarlet red in the fall. It may grow 60 feet tall and 40 feet wide. It has an upright oval shape and adapts to moderately high pH.

'Legacy' is a fast growing cultivar with thick glossy leaves that turn red to orange-red color in the fall and are resistant to tatter and drought damage. It has an oval form that grows 50 feet tall and 35 feet wide. It is prone to verticillium wilt.

Prune Sugar Maples only if it is essential where you need to remove damaged branches or to remove branches that are rubbing against something that causes it damage. The best time to prune Sugar Maples is at the end of the summer or in the fall to prevent bleeding sap.

Sugar Maples release exudates that may inhibit the growth of Yellow Birch trees when the root growth periods coincide, thus gaining a growth advantage over one of its associated species. The roots of the Sugar Maple can crack sidewalks and can clog drains and septic systems.

Aster and goldenrod exert an allelopathic effect on Sugar Maples by reducing germination and early growth of seedlings. The definition of allelopathy is the suppression of growth of one plant species by another due to the release of toxic substances.

Sugar Maple cuttings may be rooted and later fail because of poor overwintering. They can be successfully overwintered by forcing the cutting to break bud and produce a flush of new growth immediately after it roots with the use of gibberellic acid. This is a growth regulator that stimulates cell division and leaf and stem elongation.

Except for bud losses, sugar maple is not highly susceptible to insect injury and serious outbreaks are not common. The most common insects to attack a Sugar Maple are defoliators that harm the tree in a cosmetic way. Diseases of the Sugar Maple generally deform, discolor, or decrease total volume but seldom kill the tree. Sugar Maples are susceptible to leaf scorch during droughts. Gas and smoke harm the Sugar Maple making it less suitable for the city environment. Norway and Red Maple trees are better choices for an urban setting.

The next time you enjoy that blaze of colorful foliage in the fall or savor pancakes with delicious maple syrup, think about the wonderful Sugar Maple tree and adding it into your landscape.

Happy Gardening!

Resources

[Sugar Maple](#), Carol Ness, Virginia Cooperative Extension

[Acer saccharum Marsh. Sugar Maple](#), Richard M. Godman, Harry W. Yawney, Carl H. Tubbs, Virginia Tech

[How to Grow a Sugar Maple Tree](#), Vanessa Richins Myers, the Spruce

[Acer saccharum](#), North Carolina Extension Gardener Plant Toolbox