

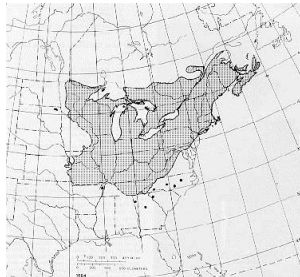
# Sugar Maple

*Acer Saccharum*

Family: Aceraceae



## Geographical Range:



The Sugar Maple is native of North America, inhabiting hardwood forests stretching from Nova Scotia to Minnesota and as far south as Georgia. The Sugar Maple thrives in the cool, damp climate

typically found in the lake states.

## Life History:

The Sugar Maple depends on the power of the wind to reproduce. Reproduction, however, is rather easy for the Sugar Maple. Average germination temperature is just above freezing, giving the tree a great opportunity to thrive in the northern native regions. The seedlings of the tree are very well-adapted to the cold weather and can withstand shade or sunlight. Growth rates of the tree can be anywhere between 2 and 4 inches per decade. As a result, it takes a long time before the tree becomes mature and flowers.

## Economic Importance:

The sugar maple plays one of the most important roles of hardwoods in the economy. The sap of the Sugar Maple contains 2x the sugar content as other Maples. As a result, the Sugar Maple is currently the only tree used for commercial syrup production. The wood of the tree is used commonly used for furniture, flooring (hardwood floors), and various parts of tools and novelty items. Recently, agriculturists have used the Sugar Maple for not only the production of maple syrup, but also as firewood, saw logs, and in the paper industry.

## Size:

Depending on where the tree is growing, it can have many different size characteristics. Growing in the open, the Sugar Maple can grow to be over 100 feet tall. In this condition, the trunk of the tree will begin to branch close to the ground. When found among other trees in a forest setting, an average Sugar Maple measures anywhere from 70 to 90 feet. The crown of these trees begins about 4.5 feet from the ground and narrows towards the top of the tree.

## Leaf Characteristics:

Sugar Maples have simple, smooth, dark green leaves. The underside of the leaves can be lightly hairy and



paler than the top side. Leaves measure anywhere between 3 and 7 inches long, and are palmately lobed. Leaves are usually found with 5 lobes, but may be found with as few as 3. The margins of each lobe appear to be largely toothed, or slightly lobed themselves. Each node contains a distinguished vein stretching from the base of the leaf through the tip of the node. The change of color in the fall happens unevenly in the Sugar Maple, each leaf being yellow, orange, red-orange, or green at any given point.

## Stem Characteristics:

The bark of the Sugar Maple appears dark grey or even dark brown as it ages. The nodes of the Sugar Maple are alternately arranged on the twigs. Buds are



small, brown, and pointed. Young twigs start green and turn to dark red-brown. Eventually as the tree grows, they become

dark brown to match the other branches. There are small openings on the twigs that slightly expose the white interior.

**Flower Characteristics:**

The Sugar Maple trees only begin to flower after about 20 years of age. The older the tree is, the more it flowers.

yellow-green flowers of tree are both and female, meaning the is



The this male tree

**monoecious.** They bloom anywhere between late March and Middle of May, depending on the region. The flowers grow in clusters of 5-10, do not have petals, and are about 1-3 inches long.

**Fruit Characteristics:**



The fruit of the Sugar Maple is a double samara. Each wing of the samara carries one green seed that is less than half an inch long inside the samara that is about 1

inch long. The samaras start as a solid green color and then turn to a dry, tan color once they ripen. Ripening takes about 16 weeks from the time the flower blooms. Two weeks or so after ripening, the samaras fall off the tree. Soon after, the leaves begin to fall as well.

Many small insect pests harm the Sugar Maple, but it is very uncommon for any insects or diseases to kill a tree. Small insects such as the fall cankerworm and the green-striped maple worm eat the leaves of these trees. Other insects may harm the growth and value of the Sugar Maple. Some threatening fungi to the Sugar Maple cause root-rot, white heart rot and brown heart rot, and butt rot.

**Interesting Facts:**

- Found on the Canadian flag
- Also known as Hard Maple or Rock Maple
- State tree of New York

**Question:**

What is the term for when a tree has both male and female flowers?

- a). clustered
- b). monoecious
- d). dioecious

**References:**

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**Insect & Fungal Pests:**

