**Norway Maple (*Acer platanoides):* Banknotes and Violins**

by Gary Carlin

A Quaker botanist, John Bartram of Philadelphia, introduced the Norway Maple to North America in 1756. It is said that he even sold the tree to George Washington. The Norway Maple is a native of northern Europe and western Asia. Fredrick Law Olmsted made certain to plant as many as possible in the city’s premiere park, Central Park, instead of the native maples. Now sugar maples and oaks of our native forests are literally in danger, as they just can’t compete with this foreign invader.

If you stand beneath a mature Norway Maple you should notice there is no vegetation growing around the tree. Scientists have found that the roots do not grow deeply and are close to the surface leaving no water for other plants. In fact research is showing that the roots of Norway Maple are allelopathic and produce toxic substances to inhibit other plants. In addition, the dense canopy significantly shades the area below to the tree to further reduce the possibility of any other plant growth.

Norway Maples produce a large seed load and have an extremely high germination rate. In North America it has become an invasive species that is far more dominant than it is in its native range. The Norway Maple got its big break in the U.S. in the 1950s-60s when the Dutch Elm Disease decimated the American Elms. Meanwhile, the native Sugar Maple would not survive the challenging life on the streets, limited space, compacted soil, and high pollution exposure levels. S o the Norway Maple became the new street tree. In the northeast U.S. it is now one of our most common urban trees. However, in many areas it is no longer planted in order to protect our native woodlands.

Norway Maples have life expectancies of 250 years but here in the United States they are lucky if they live past 100 years of age. In the cities, they are often responsible for breaking up the sidewalks. In many cases, limited space and soil compaction (girdling root) prematurely causes the death of the trees. The trees become weakened and then highly susceptible to fungal diseases and insect damage. Today there is a new invasive species to add to the problem, the Asian Longhorn beetle (*Anoplophora glabripennis*) that borrows through the bark into the trunk and eventually kills the tree.

Many people confuse the Norway Maple with the Sugar Maple (*Acer saccharum*). But if you look closely you will see that points of the Norway Maple leaf end in fine hairs, while the Sugar Maple points are rounded. The lobes of the Norway Maple leaf are triangular, the Sugar Maple lobes are square. Norway Maple seeds are flattened and point away from each other, Sugar Maple seeds are spherical and point downward. The bark of the Norway Maple has small intersecting grooves (tightly grooved) and is not scaly, the Sugar Maple has gray, deeply furrowed scaly bark. If you break the leaf stem of a Norway Maple it will produce a milky white sap, the Sugar Maple sap will be clear.

The maple tree is a universal symbol of strength and endurance. However, the first thing people think about maple trees is maple syrup, pancakes and waffles. Even though all maple trees can be tapped, for this delicious sweet syrup, Norway Maples are often skipped, as they just don’t produce enough sugar in their sap compared to Sugar, Red, and Black maples. The second thing people usually think about maple trees is it use as the symbol of Canada on its coat of arms and the national flag. The maple leaf also appears on Canadian currency. In the summer of 2013, many people (and prominent botanists) noticed that “stylized maple leaf” on the $20, $50 and $100 dollar bills more closely resembled the foreign Norway Maple and not a native species such as the sugar maple ... something firmly denied by the Bank of Canada.

Of all the maple trees, it is one of the first to have its leaves appear and one of the last to loose them in the fall. In April the trees produce clusters of small (1/4 to ½ in.) yellow-green flowers before the leaves appear. The fruits are two-winged, 1-1/2 to 2 inch samaras (also called “maple keys”, “whirlybirds”, “polynoses”) that hang in clusters that mature in September to October. Trees are quite prolific and one tree can produce and release over one hundred thousand seeds. Because of their shape they spin like a helicopter blade as they drop and can be carried long distances by the wind. Yet, the Norway Maple can also reproduce asexually from it roots by vegetative propagation in which new plants of the same genetic make-up grow from the roots.

At one time the Norway Maple leaves were used as wrappers for fruits (apples) and root crops (i.e. beets, carrots, and turnips) to help protect and preserve them. The bark produces a rose colored dye. Its wood is hard and heavy and has been used make furniture to make cabinets, handles and moldings. It is also used in hard wood flooring as a very light colored flooring or is stained for a dark color. In the 18th century, Antonio Stradivarius used Norway Maple to make the back of his extremely sought after violins.