

Norway maple
Acer platanoides L.
Maple Family (Aceraceae)



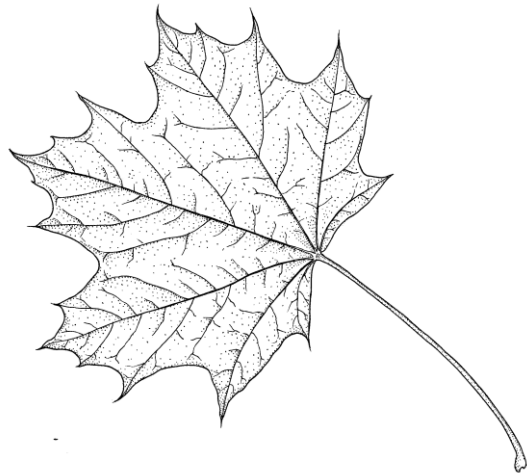
DESCRIPTION

Norway maple is a large, deciduous tree with a broad, rounded crown. It can readily be distinguished from other maples because the leaves and twigs ooze milky sap when cut or torn. Norway maple is the only large maple in our range that has that characteristic; however, late in the season it may be hard to detect.

Height - Norway maple can be 60–65 feet in height with a trunk diameter of as much as 6–7 feet, and a branch spread of 70 feet when growing in the open.

Stem - The bark is smooth and gray-brown; twigs are stout, brown with green buds with overlapping bud scales. The leaf scars are crescent-shaped with 3 distinct bundle scars, the pairs of leaf scars join around the stem to form a sharp angle.

Leaves - Norway maple has dark green leaves that are about 6 inches wide and 4–5 inches long, with 5–7 lobes. The fact that the leaves are wider than they are long is a good distinguishing characteristic; sugar maple leaves are generally longer than wide. Norway maple leaves are the last to change color in the fall; they remain green until early November then turn bright yellow. Late fall is the best time to survey for Norway maples as they are very conspicuous at that time.



Flowers - The yellowish-green flowers of Norway maple appear in stalked clusters in mid- to late April as the leaves are expanding; they are insect pollinated.

Fruit and seed - Like all the maples the fruit of the Norway maple is a double samara; its wings diverge at nearly 180°. The seeds, which mature in September, are wind dispersed.

Roots - Norway maple has shallow roots that are frequently exposed at the soil surface.

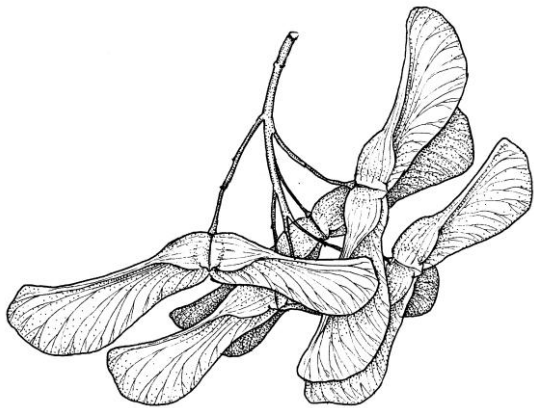
DISTRIBUTION AND HABITAT

Norway maple is the most widespread maple in Europe where it occurs from Norway and Sweden to the Caucasus Mountains, Turkey, and northern Iran. It was originally introduced into North America by John Bartram of Philadelphia who received seedlings from Philip Miller of

London in 1756. Soon after, Bartram began offering the plant through his nursery business operated in West Philadelphia. George Washington ordered 2 Norway maples from the Bartram in 1792 for his garden at Mount Vernon. Norway maple subsequently became one of the most popular trees for city plantings; many cultivars have been developed including purple-leaved and columnar forms. Over the years Norway maple has naturalized throughout most of Pennsylvania, although it is more common in the southern half of the state.

EFFECTS OF INVASION

Like many potentially invasive, non-native plants, Norway maple did not emerge as a problem until many years after its initial introduction. It wasn't until the early 1900s that plant identification manuals began to include it with the notation "occasionally escaped." Today Norway maple is a frequent invader of urban and suburban forests. Its extreme shade tolerance, especially when young, has allowed it to penetrate beneath an intact forest canopy. Research has recently shown that forests, which have been invaded by Norway maple, suffer losses in diversity of native forest wildflowers compared with forests in which the canopy is dominated by native species such as sugar maple. This is at least in part due to the dense shade cast by Norway maples, and the shallow roots, which compete with other vegetation.



REPRODUCTION AND DISPERSAL

Norway maple reproduces by seed, which it produces in large amounts. The winged fruits (samaras) are distributed by the wind; the seeds germinate readily, even in dense shade, and grow quickly when young. The ability of this species to grow in deep shade makes it particularly threatening to native forest habitats.

CONTROL

Mechanical - Use of the weed wrench to pull young trees out of the ground is effective. Girdling the trunk will also kill Norway maples.

Chemical - Cutting followed by treatment of the cut stem with triclopyr is recommended. Trees up to 4 inches in diameter can be controlled by an application of triclopyr in oil to the bark for a distance of 12–18 inches at the base of the trunk. This treatment is most effective between February 15 and March 31 or from June 1 to September 30.

Biological - No biological control options are currently known.

NATIVE ALTERNATIVES FOR LANDSCAPE USE

The following native trees are recommended as alternatives to Norway maple for landscape use: red maple (*Acer rubrum*), sugar maple (*Acer saccharum*), American basswood (*Tilia americana*), red oak (*Quercus rubra*), white ash (*Fraxinus americana*), tuliptree (*Liriodendron tulipifera*).

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- Internet resources** – <http://www.paflora.org> , <http://www.invasivespecies.gov>

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