Norway Maple

(*Acer platanoides*)

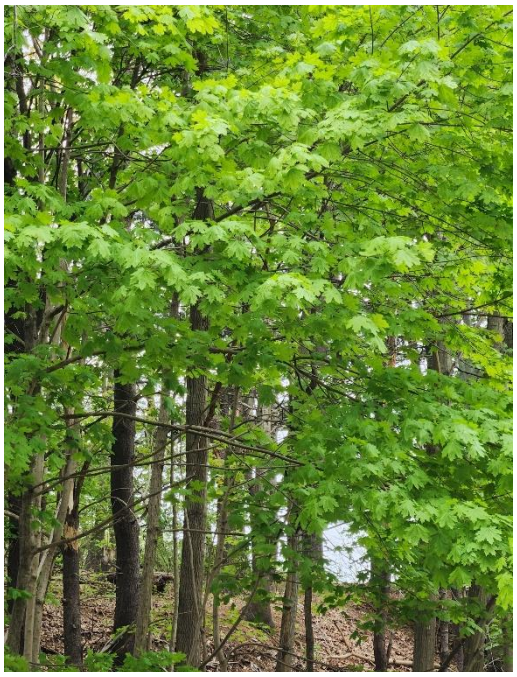


Photo 1. *Urban forest canopy dominated by Norway maple.*

Distribution in Nova Scotia:
Throughout the province

Description: Norway maple is a medium-sized deciduous tree of the Soapberry family (Sapindaceae) that grows up to 18 m tall with a large crown. It has large, 5-7 lobed, "maple" shaped leaves with smooth margins (Photo 2A). Leaves are commonly green, but some cultivars produce dark red leaves. Leaf stems (petioles) exude a milky sap when broken (Photo 4). This feature helps differentiate Norway maple from native maple species, which exude clear sap. Its flowers are greenish and bloom in early spring. Norway maple produces fruits called samaras, which resemble a pair of wings diverging at about 180° (Photo 2B).

Habitat and Impacts: Norway maple is mainly found in urban or disturbed areas. However, it can invade undisturbed natural habitats. It produces dense shade, develops competitive networks of shallow roots, and releases toxic chemicals, adversely affecting other native species. Once established, Norway maple can reduce native biodiversity and cause soil erosion due to a lack of ground vegetation. Several cultivars exist that produce fewer seeds or lower seed germination and viability to help reduce the risk of spread. However, cultivars do not produce true-to-seed seedlings and these can revert to the original Norway maple species.

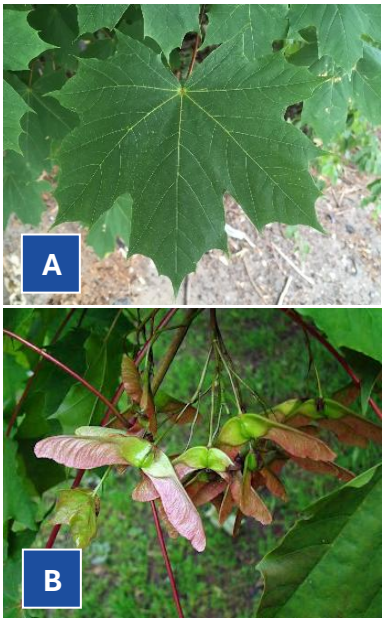


Photo 2. *A) The shape of a Norway maple leaf, and B) its fruit called samaras. Note the "wings" near 180° divergence.*

Pathways of Spread: Commonly planted as ornamental shade trees, Norway maples are frequently found in urban areas and along residential streets and can easily spread into nearby forests. The tree's winged fruit, called samaras, contain fertile seeds which are dispersed to new areas by wind and sometimes water. Human disturbances can also promote further spread, with roads and trails serving as primary pathways for longer-distance seed dispersal into forested areas.

Management: Norway maples are long-lived and in some regards may be easier to manage than invasive plants with shorter generation times. It takes 25-40 years for Norway maples to mature and produce seeds. Therefore, management should initially focus on removing the larger seed-producing trees and then target younger individuals. In areas with large seed-producing Norway maples, the site should be monitored in subsequent years to remove any new seedlings.

> ***Note!*** **DBH** – refers to **Diameter at Breast Height** and is the standard for measuring trees. The circumference of the trunk is measured at 1.3 m above the ground and then can be used to calculate the diameter.

- Pulling/Digging -

For smaller populations, seedlings can be hand-pulled from moist soil, and larger saplings (< 2.5 cm DBH) can be dug out using a shovel or a lever-based tool such as an Extractigator. This method can also be used on larger populations, but is time-consuming and labour-intensive. Be careful to minimize soil disturbance, as it can lead to re-establishment in the future.

Photo 3. *An Extractigator being used to remove an invasive shrub.*

- Cutting -

Young trees (< 30 cm DBH) can be cut down. However, the stumps will produce suckers and new shoots and will regrow if not managed. The site should be regularly monitored for several years, and suckers and shoots should be cut back. Continued removal will eventually cause the tree to die by depleting its stored nutrients.

For older trees (> 30 cm DBH), the new shoots and suckering growth will not survive. Therefore, ongoing monitoring is less critical. Cutting down medium to large Norway maple trees is a big job with risk of serious injury or property damage. Therefore, it should only be done by trained individuals wearing the proper protective equipment.

Photo 4. *The milky sap that exudes from Norway maple petioles when broken.*

- Solarization –

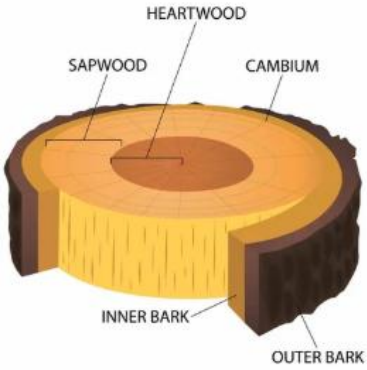
Sucker and shoot growth on stumps can be reduced by covering the stump with a black tarp or other dark, opaque material that sunlight cannot penetrate. The tarp can be secured with weights or a rope tied around the trunk. A soup can also be placed directly on the stump of younger trees to hinder regrowth. The site should be regularly monitored to ensure the covering remains in place and is not damaged.

- Girdling -

If done correctly, girdling is an effective control method for Norway maple trees of all sizes. Girdling should sever the sapwood (layer beneath the cambium), stopping the flow of water and nutrients, and killing everything above the girdle. Cut two parallel rings around the entire circumference of the lower 30 cm of the tree's trunk, ensuring the cuts are deep enough to sever the sapwood. These cuts can be made any time of year using manual tools, such as a girdling knife or a chainsaw. Due to the risks of personal injury, only trained individuals with proper protective equipment should use a chainsaw to girdle. If severing the sapwood is not possible, remove a 5 – 7.5 cm wide strip of the bark, including the cambium. Removing a large strip of bark helps prevent the bark from regrowing.

Sapwood: The outermost layer of wood. It is made of xylem cells that transport water throughout the tree.

Cambium: A thin layer between the bark and wood that produces the xylem (for water transportation) and phloem (for food transportation) cells.



When a tree dies, its wood turns grey, and the canopy no longer produces leaves. Larger trees (> 25 cm DBH) may take several years to die and should be monitored to assess whether re-girdling is necessary. For smaller trees, girdling may cause shoots to regrow below the girdle line. The site should be routinely monitored for several years, and the shoots should be cut back.

- Herbicides -

Herbicides are only recommended if other management methods are ineffective or impractical for the site. Herbicides must be applied in accordance with label directions and all applicable regulations. Avoid using herbicides near water or ecologically sensitive areas. For more information about pesticide regulations in Nova Scotia, please visit **https://novascotia.ca/nse/pests/faqs.asp**

Herbicides are often not needed to control Norway maple, especially when managing a small number of trees. This species can be effectively managed using manual methods, and herbicides are generally unnecessary. In larger populations, applying a systemic herbicide (herbicides that travel through the plant's vascular system to kill the roots), such as glyphosate, can increase effectiveness of control when cutting or girdling young (< 30 cm DBH) Norway maples. After cutting the trees, apply a 100% glyphosate concentrate directly to the cut stumps within five minutes. Herbicides should not be applied in spring when the nutrient flow is upward, as this will decrease their effectiveness. In Nova Scotia, using herbicides at this concentration requires an herbicide applicator licence. This type of herbicide treatment is unnecessary for larger trees, as the new shoots and regrowth will not survive.

Disposal: Norway maple plant material should be left at the site to decompose naturally whenever possible. This reduces management costs and provides valuable refuge and food sources for wildlife. Young trees with attached roots dug or pulled out should be overturned and left to dry, ensuring the roots do not touch the ground to prevent re-rooting. Dead girdled trees can be left standing to decay naturally at the site, providing valuable habitat for wildlife. If the tree is a hazard, trained personnel should be hired to remove it.

If the plant material must be removed from the site, Norway maple wood can be used for firewood or chipped and composted. Samaras (winged fruits) should not be composted. Instead, place them in black garbage bags, double bagged, and left in the sun for several weeks to solarize. Let them know if the plant material contains seeds or soil, as additional measures may be required to prevent further spread. Call your local waste management facility for directions on collection and disposal. Contact information can be found at the following website: **https://novascotia.ca/nse/waste/about.asp**.

Report Observations!

Observations of Norway maple should be reported on **iNaturalist.**

Uploading to **iNaturalist** is free and easy to do! Download the app on your mobile device, create an account, take photos of the organism, and upload the observation.

iNaturalist

If you prefer not to use iNaturalist, observations can be reported directly to the **NSISC** website.

To learn more about invasive species and how to prevent their spread, visit the Nova Scotia Invasive Species Councils website at: **https://nsinvasives.ca**

Prepared by:
Nova Scotia Invasive Species Council, 2025

NOVA SCOTIA invasive SPECIES COUNCIL

Reference & Further Reading:

Simkovic, Vicki. 2020. Norway Maple (*Acer platanoides*): Best Management Practices in Ontario. Ontario Invasive Plant Council, Peterborough, ON

INVASIVES CANADA