



Maintaining a distribution of ages, sizes and species of trees can be achieved by harvesting trees in small patches, called group selection, or by harvesting trees uniformly throughout the site, called individual tree selection.

A thorough knowledge of tree species characteristics (called silvics), and site factors is essential in selection management. Typically, a cross-section of trees of all ages and sizes are removed during each harvest.

The type of equipment to be used for harvesting trees on your woodlot requires careful consideration. The scale of equipment should be suited to the size of the harvesting operation and the type of harvest.

Smaller sites or jobs where individual trees are to be chosen for harvest (such as selection management) can be done with the use of chainsaws or by a single-grip harvesting head mounted on a farm tractor or specialty forestry vehicle. Extracting the wood can be accomplished by various means, including horses, oxen, or by a mechanical skidder or forwarder.

#### **Other things to consider:**

Harvesting on your woodlot can result in increased runoff and a higher water table, which can affect woodlot roads, culverts and neighbouring properties.

Are seedlings already present? Will the site require planting?

Are markets available for the timber that you will be harvesting?

If you are not doing the work yourself, will you be contracting the harvest, and to whom?

It is important to become familiar with the province's Wildlife Habitat and Watercourse Regulations, found on NSDNR's website at <http://www.gov.ns.ca/natr/wildlife/habitats/protection/>

*For detailed information, please visit the following resources:*

#### **NS Department of Natural Resources**

[www.gov.ns.ca/natr/woodlot](http://www.gov.ns.ca/natr/woodlot)  
1-866-226-7577 [woodlot@gov.ns.ca](mailto:woodlot@gov.ns.ca)

#### **Forest Professionals**

- Registered Professional Foresters Association of Nova Scotia [www.rpfans.ca](http://www.rpfans.ca)
- Nova Scotia Forest Technicians Association [www.nsfta.ca](http://www.nsfta.ca)
- Canadian Institute of Forestry [www.cif-ifc.org](http://www.cif-ifc.org)

#### **Woodlot Owner Organizations**

- Federation of Nova Scotia Woodland Owners [www.fnswo.ca](http://www.fnswo.ca)
- Nova Scotia Landowners and Forest Fibre Producers Association [www.nslffpa.org](http://www.nslffpa.org)
- Nova Scotia Woodlot Owners and Operators Association [www.nswooa.ca](http://www.nswooa.ca)

#### **Harvesting and Silviculture Contractors**

- Nova Forest Alliance [www.novaforestalliance.com](http://www.novaforestalliance.com)
- Atlantic Master Loggers [www.cwfcf.org](http://www.cwfcf.org)

#### **Silviculture Assistance**

- Association for Sustainable Forestry [www.asforestry.com](http://www.asforestry.com)

#### **Woodlot Road Assistance**

- Forest Products Association of Nova Scotia [www.fpans.ca](http://www.fpans.ca)

*A Quick Guide to*

# WOODLOT HARVESTING

  
NOVA SCOTIA



Nova Scotia's forests are in continual cycles of growth and decline. The Acadian forests of the province contain red spruce, white pine, eastern hemlock, yellow birch and sugar maple. Other areas may contain balsam fir, white spruce and red maple. Many forest stands have developed as a result of timber harvesting, fire, or insect and disease damage.



Much of the area of your woodlot may have been harvested three or four times in the past 150 years. You may have sites that were planted or thinned up to 30 years ago.

Which harvesting method best suits your woodlot and your objectives? Much depends on what you have to start with.

Is part of your woodlot composed of old fields that now support mature white spruce trees? Does your woodlot have areas of mature healthy red spruce, white pine and eastern hemlock?

These very different conditions can result in significantly different harvest prescriptions.

There are two main types of harvesting: clear cutting and partial harvesting.

**Clear cutting** is the removal of all, or nearly all, of the trees on a harvested site.

Partial harvesting leaves a significant number of trees standing, either individually or in groups across the harvested area.

During the past century, much of the harvesting done in the forests of Nova Scotia has been by clear cutting.

It is still the most widely used harvesting practice today, and Nova Scotia's Natural Resources Strategy is focused on reducing clear cutting to 50 percent of all harvests. Clear cutting is suited to even-aged forests, in which the trees are mostly the same age and size. In some cases it is also prescribed for single-species stands such as white spruce that have regenerated old field sites.

**Partial cutting** can be used successfully if your woodlot supports the growth of long-lived, shade-tolerant, firmly-rooted species such as red spruce, hemlock, white pine, yellow birch and sugar maple. These species will grow in the shade of larger trees and can often regenerate perpetually on your woodlot. It is very important to consider the depth and drainage of the soil,



and the amount of wind exposure that your site may have. If the site is sheltered from wind, and the soil is at least 30 cm in depth and is well drained, there is less risk that the trees will suffer wind damage.

One type of partial harvesting is shelterwood harvesting, in which wind-firm mature trees are left uniformly distributed on a harvested site to provide seed and shelter for natural seedlings. The trees are harvested once the seedlings are well established. The harvesting can take place in two or more stages over the next 20 years.

Leaving desirable seed trees scattered singly or in groups is called seed tree harvesting. At least five or ten trees per hectare are left standing.

If your woodlot contains several different age classes of long-lived, shade-tolerant trees, selection harvesting may be a good management option.

