

## What is Crop Tree Pruning?



Pruning is a treatment to increase the quality and value of selected trees by artificially removing the lower limbs.

## Why Prune Crop Trees?

Pruning encourages young trees to establish good branch structure and one central bole. Pruning promotes clear boles which are highly valued for veneer quality products.



## When to Prune Crop Trees?

Pruning can be done any time of the year but the preferred time is when the tree is dormant.

## Crop Tree Pruning Standards

Trees must be at least 8 metres tall before being considered for pruning. All branches from the first 5 metres of the tree bole must be removed. It is important to maintain a live crown that is at least 1/3 of the total tree height. For example, an 8 metre tree should have at least 2.7 metres of live crown.



## How to Prune Crop Trees

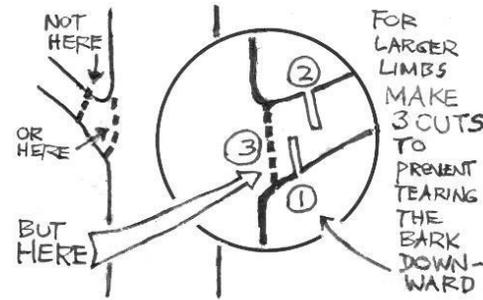


Illustration of crop tree pruning by Gary Saunders. Reprinted with permission from *At a Glance: A Guide to Identifying and Managing Nova Scotia Hardwoods* by Gary L. Saunders, Nova Forest Alliance 2004.

The diagram above explains how to properly prune a tree. The first cut to be made is an under cut (1), followed by an upper cut (2) to remove the majority of the branch. The final cut (3) is then completed to remove the branch stub. This technique should especially be used when pruning larger branches.

Live branches must be removed from the tree bole at the branch collar (where the bark and wood of the bole and branch come together). Care must be taken not to remove the branch collar when pruning. Dead branches should be removed at the ring of living wood that forms around the dead branch.

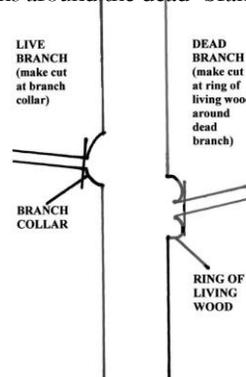


Illustration by Rebecca Aggas, RPF.

There is no set angle for a proper pruning cut; it solely depends on the branch collar orientation. For example, softwoods generally have flat branch collars.

Pruning of larger side branches (8 centimetres and greater) is not recommended.

Examples of proper pruning in white pine and yellow birch:



Pictures of crop tree pruning used with permission from Patricia Amero, RPF.

## Quality Concerns

When done properly, pruning greatly benefits the quality, future product potential, and health of a tree. Improper pruning, on the other hand, can significantly reduce the quality and potential of a tree. It is better not to prune, then to do it improperly.

Techniques to avoid:

1. Stub cuts – leaving too much branch
2. Flush cuts – cutting too close to the main bole
3. Breaking off dead branches (they need to be properly cut)
4. Using wound dressings
5. Tearing bark when cutting larger branches (use the 3 cut method for larger branches)
6. Scuffing tree bole to expose cambium or wood

All of these techniques expose the tree to infection through insect and/or disease.

Examples of improper pruning in white pine (flush cut and scuffing of tree bole):



### Tools to Use When Pruning Crop Trees

There are a variety of tools that you can use to prune crop trees depending on the size of the branches to be pruned and the height of bole to be pruned. Hand shears, lopper shears, pruning saws and pole pruners (which includes saw or lopper shears) are commonly used. Safety goggles and a hard hat should also be worn, especially when pruning overhead branches. It is not recommended that chainsaws are used for pruning as improper cuts and damage are likely.



Pictures of pruning saws used with permission from Patricia Amero, RPF.

### Silviculture Funding

The Association for Sustainable Forestry administers the Category 7 Quality Improvement Silviculture Program through which Crop Tree Pruning is funded on small private woodlands in Nova Scotia. Qualifying sites are eligible for an assistance rate of \$300/hectare. Crop trees eligible for pruning include white pine, red pine, white ash, yellow birch, sugar maple, red oak, red maple and white birch. Crop trees must be 8 metres in height and pruned up at least 5 metres. At least 125 crop trees per hectare must be pruned. This treatment can be combined with Crop Tree Release, Selection Management, or Commercial Thinning.



Picture of crop tree pruning of white pine tree used with permission from Patricia Amero, RPF.

### For more information, please contact:

Association for Sustainable Forestry  
P.O. Box 696  
Truro, NS  
B2N 5E5

Phone: (902) 895-1179  
Fax: (902) 893-1197  
Email: [info@asforestry.com](mailto:info@asforestry.com)

[www.asforestry.com](http://www.asforestry.com)



## Crop Tree Pruning Association for Sustainable Forestry



Picture of crop tree pruning of white ash tree used with permission from Patricia Amero, RPF.