

Branching out

from the Canadian Forest Service ■ Laurentian Forestry Centre

Number 48
2008

Pruning is good, but doing it at the right time is better!

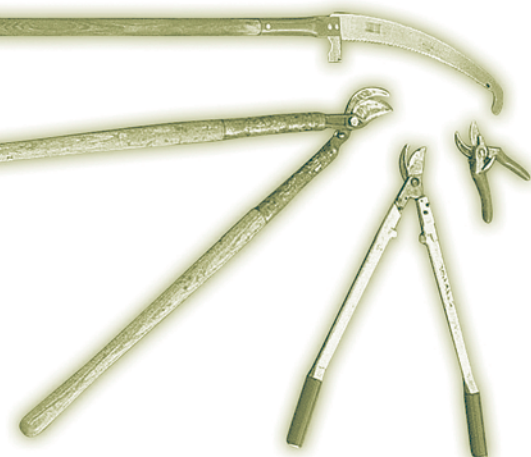
There are lots of questions surrounding pruning, mostly as to why, how, and especially when pruning should be done. In this follow-up to an earlier article dealing with proper pruning techniques¹, a researcher with the Canadian Forest Service of Natural Resources Canada analyzed different scenarios to find out when might be the best time for pruning.

While pruning may seem fairly straightforward, experts cannot agree on the best time to do it. In view of the time and costs associated with pruning, it is worth taking into account a few basic principles relating to tree species as well as tree health, structure and physiology.

Pruning should be made when crop trees are identifiable within a stand, i.e. when young trees have a diameter at breast height (dbh) of about 10 cm. The objective of pruning is to obtain knot-free wood and stems with a slighter taper. In the case of conifers, pruning helps to reduce the amount of juvenile wood.



Red pine stand.
Photo: G. Laflamme (CFS)



Pruning terminology

Pruning terminology can be confusing. *Pruning* is a general term used for all operations involving the removal of branches or parts of branches from a tree. Pruning may be carried out for various purposes. For instance, the pruning techniques referred to in this text involve the removal of all lower branches near the trunk. *Formative* pruning is usually done to eliminate forks and undesirable large branches. Finally, please note that topping a tree is not an acceptable practice. The recommendations provided in this text apply to all these treatments.

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1 D. Rioux, 2007. Anatomy of a successful pruning. *Branching Out*, No. 36. Canadian Forest Service – Laurentian Forestry Centre.



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The best time to prune is early or late during the dormant season, while avoiding the periods of great frost in winter. Dead or weak branches can be removed anytime. A tree that is struggling to remain healthy and that only has a few more or less vigorous branches to carry on photosynthesis should not be pruned. When it comes to diseases, no time should be lost: pruning should be carried out as soon as symptoms appear.

Conifers may be pruned at anytime. However, some experts recommend that the operation be carried out during the dormant season to minimize sap and resin flow from cut branches. It should be kept in mind, however,

Pruning to maintain tree health

Pruning is often the only method available for managing certain pests. Some pruning prescriptions are very specific and must be followed carefully for maximum efficacy.

For example, with the exception of curative pruning which may be done anytime, elms should always be pruned in late fall or early winter to avoid attracting insect vectors of the pathogen that causes Dutch elm disease. Pruning treatments in young white pine and red pine plantations can also be effective for controlling white pine blister rust² and scleroderris canker³.



Pruning at the wrong time could be fatal to an elm.
Photo: A. Carpentier (CFS)



Photo: Canadian Forest Service

that the secretion of resin is a defence mechanism that protects the tree from injury, including cuts made during pruning.

For deciduous trees, the dormant season is an ideal time for pruning because, with the foliage gone, it is easier to identify branches that need to be removed. There are some excep-



Photo: Natural Ressources Canada

tions to this rule of thumb. For example, birches and maples lose a lot of sap in the spring, so it is best to prune them during their active growth period in summer or in early fall to provide enough time for callus tissue to form.

Opinions thus vary widely on the best time to carry out pruning. Moreover,

few scientific studies have been done on this topic and most of the information available is essentially based on the experience of practitioners. The safest approach is to follow the basic principles and to consider the specific situation of the trees to be treated.

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2 C. Coulombe et al. 2004. A simple, effective tool for controlling white pine weevil and blister rust. Forest Innovation Partnership.
3 G. Lafflamme. 2004. A successful treatment for scleroderris canker in red pine. *Branching Out*, No. 12. Canadian Forest Service – Laurentian Forestry Centre.