

WOODLOT MANAGEMENT PLANNING

Woodlot management requires forethought. Some initial planning can help you turn your intentions into reality. Planning helps you:

- ▶ organize and document your ideas
- ▶ set and achieve your goals
- ▶ avoid costly mistakes
- ▶ ensure that resources are well-managed
- ▶ maximize potential returns
- ▶ monitor your progress
- ▶ prepare for the tax implications of owning a woodlot.

Planning embraces managing what you've got and planning for what you could have. For example, right now you may have a woodlot in need of harvest. A comprehensive plan will help you schedule the harvest. It will also very likely bring other agroforestry opportunities to your attention (e.g. non-wood products, afforestation).

Planning your woodlot's management can be a process of discovery. This chapter leads you through six steps that will build your knowledge of what's on your property and help you develop goals and choose options to meet them.



Steeply sloping and stony lands – especially adjacent to woodlots – offer opportunities for *afforestation* (putting tree cover on old farmland) and other agroforestry practices.

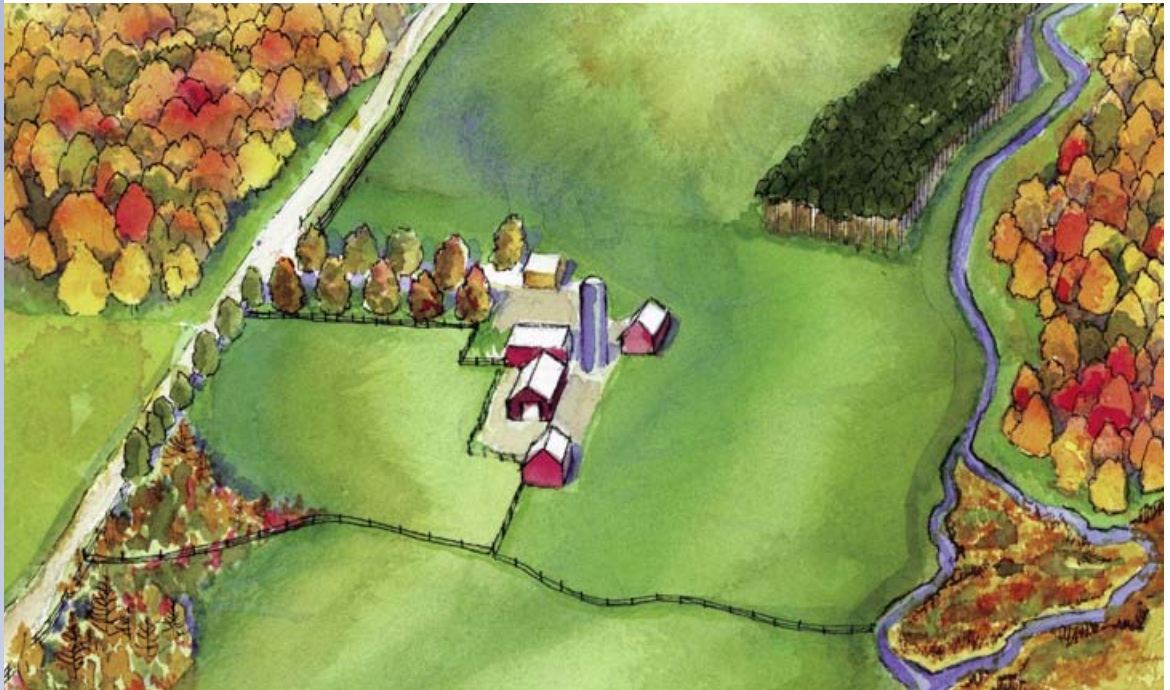


Knowing what you and your family want from your woodlands and other natural areas will set your plan's direction and purpose.

Worksheet #23 in the Canada–Ontario Environmental Farm Plan's *Workbook* promotes sustainable forest management while paying close attention to environmental benefits such as wildlife habitat. In the worksheet, management practices and resource conditions are rated from 4 (Best) to 1, according to a suite of standards agreed to by farmers, foresters and wildlife habitat specialists. To be considered Best, woodland management must include:

- ▶ a management plan
- ▶ planning and harvest assistance from a professional forester
- ▶ due regard for environmental concerns (e.g., habitat, water quality) together with long-term business goals.





Planning can be simple and straightforward. For this property, the plan will concentrate on the management of, and product development from, existing woodlots.

If you need additional help, experienced consultants are available in most areas. Consultants can help you with:

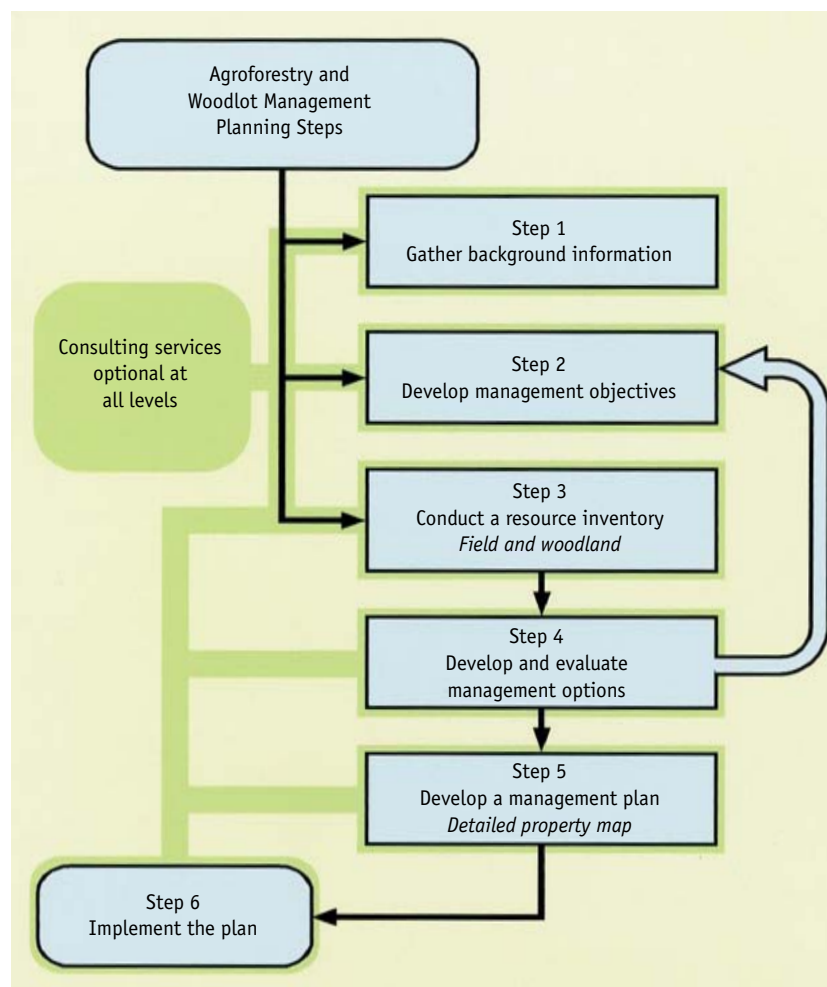
- ▶ developing the plan
- ▶ determining your objectives
- ▶ determining what should be done in your forest
 - ▷ *tree marking*, harvesting, pruning, etc.
 - ▷ selling your standing timber
 - ▷ ensuring that your forest is being appropriately managed.



6 STEPS TO A PLAN

Management planning starts with creating a vision for your property, an idea of what you would like to do over the next few decades. Planning can be looked at as a number of steps. Each step brings you closer to benefiting from the potential of your property.

The following flow chart lists some of the more common steps in the planning process.



For more help with planning, see *A Guide to Stewardship Planning for Natural Areas*, 2nd ed., 2006. It is available from the Ontario Ministry of Natural Resources.

WOODLOT MANAGEMENT PLANNING STEPS:

Step 1. Gather background information

Step 2. Develop
management
objectives

Step 3. Conduct
resource
inventory

Step 4. Develop and
evaluate
management
options

Step 5. Develop
management
plan

Step 6. Implement
plan

STEP 1. GATHER BACKGROUND INFORMATION

- ▶ Learn from others. Talk to neighbours who have harvested, local members of the Ontario Woodlot Association, the Ministry of Natural Resources forest staff, the Ministry of Agriculture, Food and Rural Affairs agroforestry and other specialists, local stewardship coordinators and forestry consultants.
- ▶ Gather information from websites and forest management publications.
- ▶ Get a sense for the value of woodland planning: do you need a simple short-term prescription or a long-term plan?
- ▶ Then get ready. Get information on your property such as:

maps

- ▷ township map and topographic maps
- ▷ aerial photos (at a scale of 1:10,000)
- ▷ forest stand map
- ▷ soil map
- ▷ map with legal definitions of property boundaries

forest and ecological information

- ▷ local woodlot history (was it grazed? harvested?)
- ▷ wildlife information
- ▷ watershed information (wetlands, stream, etc.)
- ▷ local species composition, general ages of local woodlands, recent harvest volumes.



A management plan is a document that maps out a way of achieving your objectives.



Hiring a qualified forestry consultant to help you through the planning process can be money well spent. A consultant can assist you with all aspects of management, from developing your objectives to selling your standing timber. Consultants can also help you maximize your return and ensure that your management actions are appropriate.

STEP 2. DEVELOP MANAGEMENT OBJECTIVES

Developing realistic and appropriate management objectives for your property is an important step in the planning process.

When developing objectives, ask yourself:

- ▶ what do I want my forest to be like in 10 or 20 years?
- ▶ what do I need to do now to start working toward this vision?
- ▶ what am I capable of – time, equipment, financial resources?
- ▶ what type of help will I need along the way?

Objectives are either short-term or long-term in scope. Here are some examples of both types.

Short-term

Over the next 5 years, I plan to:

- ▶ thin my Red Pine plantation
- ▶ plant 500 trees each spring adjacent to my Pine plantation
- ▶ tap 100 Maples each year.

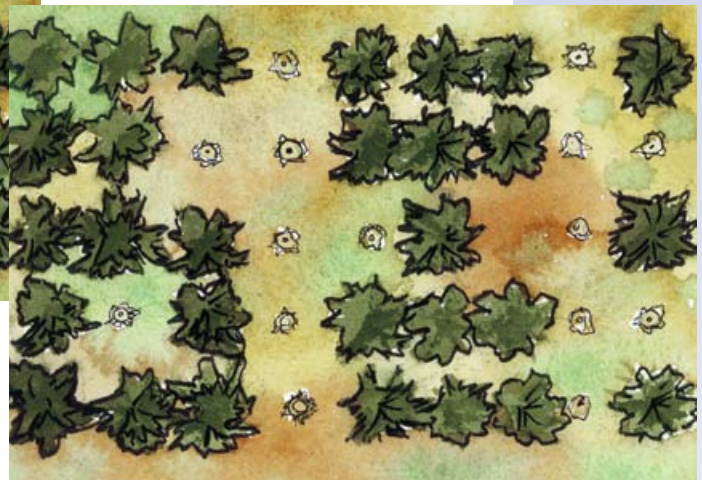
Long-term

Over the next 20 years I plan to:

- ▶ promote hardwood regeneration in my Red Pine plantation
- ▶ connect two woodlots through yearly planting
- ▶ supplement my annual income with maple syrup sales.



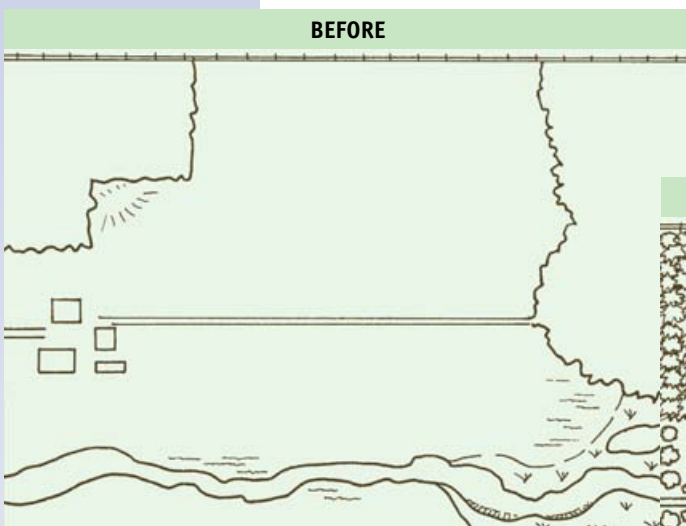
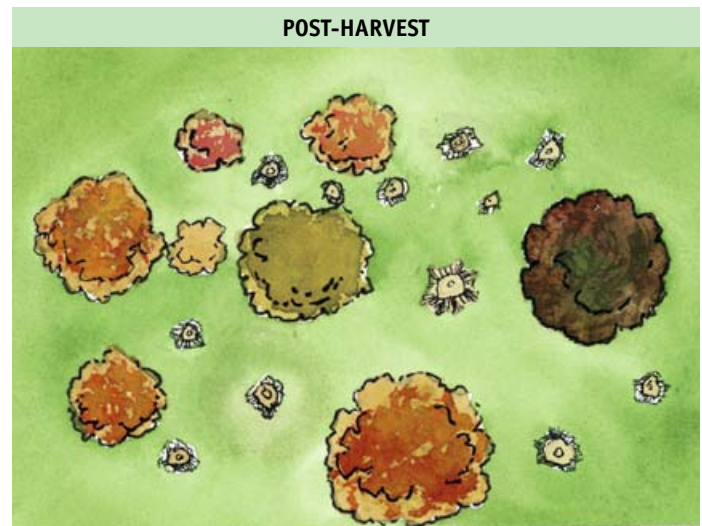
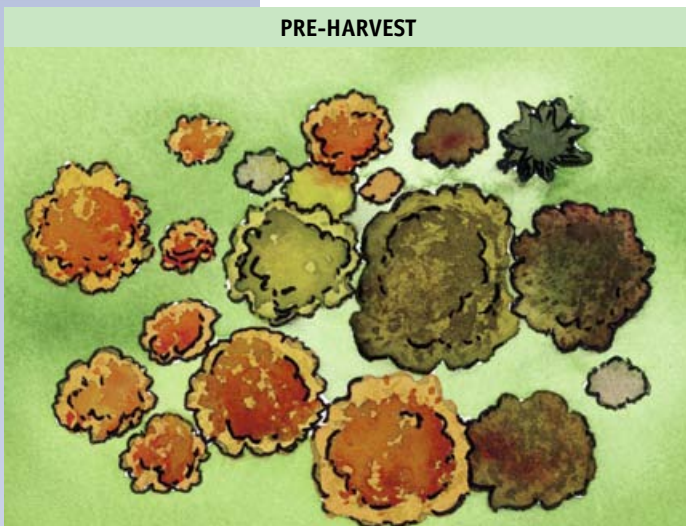
Create small canopy gaps to encourage tolerant species of trees. Medium gaps encourage mid-tolerant species. Large openings favour intolerant species.



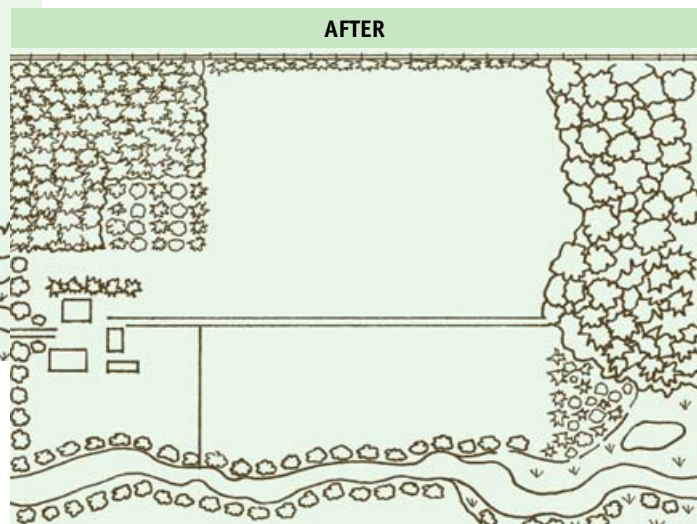
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The illustration on the left shows what occurs before the crop trees (remaining trees) have been “released.” The crop trees on the right are the ones with dominant crowns. The only trees removed were those whose crowns in the canopy touched the crowns of crop trees. You need to leave some crop trees to grow to maintain the best stocking level in the stand, and to provide new crop trees in the future.

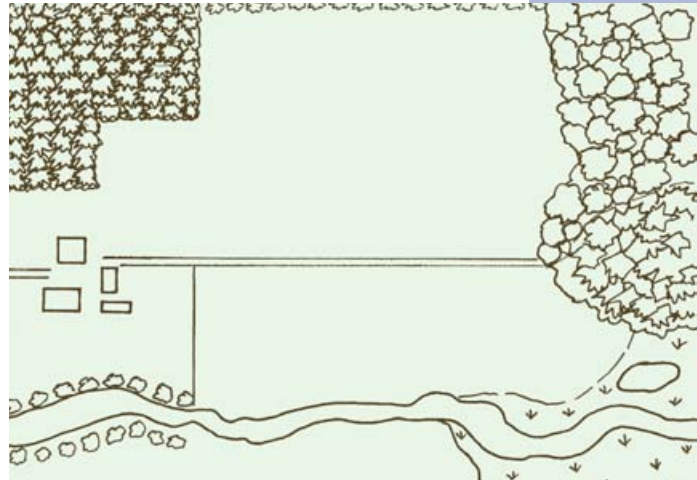


Your property is part of the bigger landscape. Your planned efforts will provide the maximum benefit to both you and to the surrounding environment. Planting trees or leaving an area to regenerate naturally can connect woodlots, increase forest size, and buffer water features.





Altering wetland features can have a disastrous impact downstream. This example shows flooding resulting from extensive clearcutting of Soft Maple on a lowland site.



Sketching a map is an important step in the inventory. Mark on your map any features that may impact your farming and agroforestry operation.

STEP 3. CONDUCT A RESOURCE INVENTORY

Conduct a resource inventory of your property to:

- ▶ provide a snapshot of your agroforestry assets – soils, forests, other natural features
- ▶ state the condition and value of your woodland
- ▶ delineate distinct management areas or units on property.

Use a map to sketch potential agroforestry activities. Where would you like to plant the windbreak or wetland buffer? Where will any new roads or trails be located? What areas are you planning on leaving as they are?

A woodland inventory will help answer these questions:

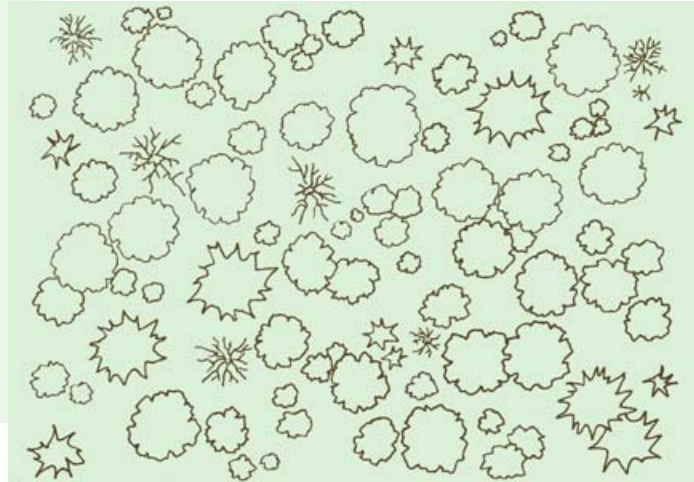
- ▶ what do I have?
- ▶ how can I best realize my objectives for the woodlot?
- ▶ are my objectives realistic?
- ▶ should it be thinned? If so, by how much?
- ▶ which trees should be removed?
- ▶ what is their approximate value?

The inventory provides essential information regarding the quantity and quality of woodland assets.



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Selling your timber by the woodlot would be like selling your cattle by the paddock. Some landowners have sold their timber for the first offer that came along. One Ontario landowner sold approximately \$80,000 worth of wood for \$5,000. An inventory would have provided useful information on what was actually being sold, and helped the landowner get a fair price.

INVENTORY FEATURES

FEATURE

DETAILS

DENSITY – # OF TREES

- expressed in trees per acre (or hectare) and/or *basal area*

SPECIES COMPOSITION

- what type of forest it is (a Maple stand, Pine stand, etc.)
- species mix
- natural arrangement – manageable compartments or stands of similar species and sizes

DIAMETER CLASS DISTRIBUTION

- related to species, site, density and age
- provides an estimate of value broken into size categories or classes
- helps tell you if your forest is overstocked or understocked (too few trees)

QUALITY

- based on tree health and future potential
- two main classifications for tree stock:
 - Acceptable Growing Stock (AGS) trees that are healthy and viable
 - Unacceptable Growing Stock (UGS) trees that will decline before the next harvest or show poor form

FOREST SITE CONDITIONS

- factors that may influence management decisions
- soil depth limitations – often mean slow stand growth
- moisture limitations (too little or too much) – influence species and growth potential for regeneration
- competing vegetation

STEP 4. DEVELOP AND EVALUATE MANAGEMENT OPTIONS

Armed with the inventory and the background information you've collected, you can now develop and assess management options. (Note: a forestry consultant would be helpful during this process.) Reflect on your values, goals and objectives when assessing options.

Some of the considerations:

- ▶ **Assess and select a silvicultural or management system.** For example, many farm woodlots are in the tolerant hardwoods group and are most suited to the selection system of management (see BMPs for Woodlands). However, some may be more suited to a shelterwood system if there is a goal to increase the composition of shade intolerants in the stand.
- ▶ **Identify business goals.** Are you looking for short-term income or long-term investment? Do you burn fuelwood or use wood products in-kind? Are you planning to do this work yourself?
- ▶ **Develop several harvest prescriptions,** based on the silvicultural system selected. Drafting ideas for species, sizes and quality classes of trees to be harvested will help you envision the after-harvest look and impacts on the residual trees.
- ▶ **Protect the environment.** This is the time to assess the impact of management on wildlife habitat goals, recreational needs and the protection of fragile and natural areas in the woodland (e.g., streams, wetlands).
- ▶ **Look at agroforestry options.** Are there marginal or fragile lands on your property? Would growing trees on these lands be an option? Could you connect natural areas with windbreaks or treed buffer strips?

Windbreaks and shelterbelts connect natural areas such as woodlots and wetlands.

In this step, forest conditions are assessed and a suitable silvicultural system is selected.



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A forestry consultant can also be hired to supervise harvest operations.



STEP 5. DEVELOP A MANAGEMENT PLAN

The management plan can be a formal document or an informal file, depending on the needs and intent of the woodland owner. The plan usually consists of a written section and maps. The written portion includes:

- ▶ description of goals and objectives
- ▶ description of woodlot (woodlot inventory)
- ▶ description of long and short term goals
- ▶ management plans and prescriptions (actions to achieve goals and objectives)
- ▶ records for income, expenses, harvest volumes, cost of *reforestation* and other information.

TREES AND TAXES

There are tax implications of selling woodlot-related products. Canada Revenue Agency (CRA) tax bulletin IT 373R2 (Consolidated) addresses:

- ▶ issues concerning the determination of taxable income, for income tax purposes, of owners and operators of woodlots, including woodlots operated as farms
- ▶ the definition of a woodlot – treed land held primarily as a source of fuel, posts, logs or trees, whether the trees are grown with or without human intervention
- ▶ how to determine if your woodlot is a commercial woodlot
- ▶ the need for management planning
- ▶ the definition of the phrase “reasonable expectation of profit”

STEP 6. IMPLEMENT YOUR PLAN

When implementing your plan,

- ▶ follow the management prescription – include environmental protection requirements
- ▶ have the trees marked by a qualified tree marker
- ▶ put the marked trees up for tender to a group of local reputable loggers
- ▶ develop a contract with the logger of your choice – not the one from the logger
- ▶ harvest the marked trees using a qualified logger (refer to section on BMPs for Harvest, pg. 138)
- ▶ conduct a post-harvest assessment.

SUITABILITY OF WOODLAND TYPES FOR PRODUCTS AND OTHER BENEFITS

WOODLAND TYPE	TIMBER PRODUCTS	FUELWOOD PRODUCTS	SPECIALTY FOREST	MAPLE SYRUP PRODUCTS	ENVIRONMENTAL	MULTIPLE VALUES PROTECTION	WILDLIFE HABITAT
TOLERANT HARDWOODS	VS	VS	S	VS	S	S	S
UPLAND MID-TOLERANTS	VS	VS	VS		S	S	S
UPLAND MIXEDWOODS	VS	S	S		S	VS	VS
EARLY SUCCESSIONAL	S	S	S		S	S	VS
LOWLAND HARDWOODS	S	S	S		VS	VS	S
LOWLAND MIXEDWOODS	S	S			VS	VS	VS
WHITE CEDAR	S		VS		VS	S	VS
RIPARIAN FORESTS	VS	VS		S	VS	VS	VS
WETLANDS – SWAMPS	S	S	S		VS	VS	VS
TREED FENCEROWS	S	VS	S	VS	VS	VS	S
SHELTERBELTS AND WINDBREAKS	S	S			VS	S	S
CONIFER PLANTATIONS	VS		S		S		
MIXEDWOOD PLANTATIONS	VS	S			S	S	S
HARDWOOD PLANTATIONS	VS	VS	VS			S	
SUGAR MAPLE PLANTATIONS	S	S	S	VS	S		

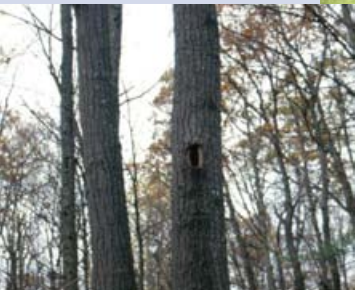
VS = Very suitable **S** = Suitable **Blank** = Unsuitable



Maple products.



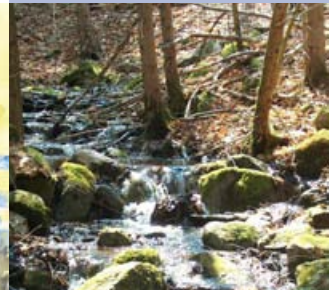
Timber products.



Wildlife habitat.



Established woodlands and opportunities for new plantings can be found on most rural properties. Each forest area offers a unique set of values and products.



Environmental protection.



Specialty products.

Check the table on page 53 to locate information on woodland types and products that interest you.