



## Managing Cottonwoods

If you have land that is brushed-in or covered with low-value hardwoods, converting to cottonwood may be the most economical way to get that land back into production. Cottonwoods have a remarkable growth rate and will outgrow just about anything in certain areas. They will thrive on the banks of rivers, streams and lakes where all other commercial tree species struggle, or on annually flooded lands where other trees can't survive at all.

Cottonwoods can tolerate 4-6 weeks of flooding providing the water is moving and carries some oxygen in it, and can be managed without relying on chemical brush control — once established, the cottonwood will not be overtopped by any brush or non-commercial trees. It is merchantable by the age of 25 years, with possible growth rates between 12 cubic metres and 16 cubic metres per hectare per year.

### Where do I plant?

It's best to get advice from a Professional Forester before planting but in general, plant cottonwoods on moist to wet sites that have rich, well-drained soils. Or plant on highly productive sites where rapid regrowth of brush makes it difficult or too costly to grow conifers. Plant where insects or diseases make it difficult to grow coniferous crops and where the use of herbicides is environmentally unacceptable, such as adjacent to water bodies. Plant on lands in need of reforestation because the cost of rehabilitating these areas with cottonwoods will be less than with conifers. Cottonwoods, with their rapid early growth, are "free-to-grow" within 2-5 years.

### How do I manage cottonwood?

Cottonwoods have a shallow, wide-spread root system. Stumps will sprout spontaneously, adding to the natural regeneration of cottonwoods. Natural



*Splitting cottonwood*

reforestation will occur after logging in pure stands of cottonwood or in mixed stands with a minimum of 120 well-spaced stems of cottonwood per hectare. Cottonwood regenerates at 5,000-10,000 stems per hectare under ideal conditions but a stand may require juvenile spacing between the ages of 7 and 12 years to reduce the stocking to 800-900 stems per hectare.

If you have fewer than 300 well-spaced stems of cottonwood per hectare natural regeneration can be enhanced by logging or clearing early in the year after the frost is out of the ground but while the soil is moist, and before plants start to grow. By moving equipment back and forth over a logged block the broken twigs of cottonwood can be pressed into the ground where they will develop a good root system, and begin to regenerate.

If there isn't enough cottonwood in a stand before clearing or logging, or if you can't log in early spring, you should consider planting. In undeveloped forest sites with advanced cover of shrubs and potential brush problems or on recently denuded lands with heavy logging residue, it is best to plant 1.5-2 metre whips. Whips are basically branches without roots. Whips can be taken from the tops of small trees or from stump sprouts with the side branches pruned off.

Whips do well on recently logged or cleared sites as long as brush and/or other deciduous trees have not already gained control of the site. Brush blading or chemical weed control will not be required if planting follows immediately after logging or clearing.

### How many do I plant?

The target stocking for a pulpwood rotation of 25 years is 800 stems per hectare, with a minimum stocking of 500 stems per hectare. Such a stand will yield roughly 300-400 cubic metres per hectare of pulpwood at 25 years. Expect a very high survival rate of 90-100 percent, so plant 800-900 stems per hectare.

### When do I collect and plant cottonwood?

Collect cottonwood whips 2-6 weeks before planting, while leaves are off and plants are dormant. The first year performance of whips can be vastly improved by cutting them early and storing them at 2-5 degrees Celsius in black plastic bags for 2-4 weeks. This will soften the stem bark and cause the roots to begin to grow. Plant whips in early spring after the frost is out of the ground and before stock begins to grow.

Besides the economic benefits of growing cottonwood, there are also some ecological benefits. Cottonwood can be planted to improve wildlife habitat, to aid in soil conservation and watershed



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protection, and to act as a windbreak.

A large consumer of cottonwood for the past 40 years, Scott Paper in New Westminster, B.C. is actively maintaining its supply of this bright fibre to meet the rising demand for its paper products. If

you are interested in getting more information on managing cottonwoods, contact Peter McAuliffe, Scott Paper Limited at 520-9284.

EDITOR'S NOTE: TREE TALK wishes to thank Peter McAuliffe for his contributions to this article.

## New Advisory Board Member



Vic Clement of St. Mary's Band in Cranbrook has recently joined the Indian Advisory Board. He brings to the board varied experience in forestry, having worked in sawmills, timber cruising, silviculture, and cone harvesting for about 10 years.

Currently, Mr. Clement is working on the fire suppression crew for the Ministry of Forests in Cranbrook.

A recent graduate from the Nicola Valley Institute of Technology in Merritt, Vic is the first Canadian member of the Kootenay Indian Tribe to hold a forest technology diploma.

Mr. Clement's future plans include managing his own forestry consulting firm.

## Ministries Come Together To Support Native Forestry Initiatives

Deputy Minister of Forestry Canada, Jean Claude Mercier, and Deputy Minister of the Department of Indian Affairs and Northern Development (DIAND), Harry Swain, met last May in Hull, Quebec to sign a Memorandum of Agreement.

The purpose of the Agreement is to improve communication and cooperation between Forestry Canada, DIAND, and Indian Bands to help identify specific native forestry needs so they can be considered in new federal or federal-provincial forestry programs.

Both Forestry Canada and DIAND have been working on programs and policies in support of Indian forestry initiatives. One such program, to be delivered by DIAND, is the Access to Resource component of the newly formulated Canadian Aboriginal Economic Development Strategy (CAEDS). This new strategy for aboriginal economic development will dedicate funds, on a continuing basis, to DIAND, the Department of Industry, Science and Technology, and the Canadian Employment and Immigration Commission. Funds will be allocated yearly, with the initial five-year total set at \$873.7 million.

The Access to Resource component of CAEDS will assist Indian communities to realize business and employment opportunities in resource sectors such as forestry. It provides a source of financial and other assistance to Indian communities to negotiate access to nearby resources, attract developers to invest in community-owned resources, or to establish agreements with developers of large-scale projects that offer employment and business benefits.

To facilitate implementation of the Memorandum of Agreement between Forestry Canada and DIAND, a Coordinating Committee will be created. This committee will ensure that strong communication links are established with representatives of Indian forestry communities on matters related to the Agreement. The Agreement will run, if not extended, until the end of 1992.

## National Body For Native Involvement

The National Meeting on Native Forestry, organized by the Indian Forest Development Corporation of Ontario and held in Winnipeg on April 27, 1989, drafted a policy statement suggesting a national body be developed to promote native involvement in forest resource management and establish a network to share ideas on profitable forestry endeavors, environmental protection, and integrated use and funding strategies. The Working Group formed three committees to put their ideas into action.

The Forestry Support Group Committee, chaired by Art Dedam, Economic Advisor with the Assembly of First Nations, is seeking support from national, regional and community leaders; establishing communications with other Indian forestry and development organizations; and making connections with major forest companies.

The National Indian Forestry Symposium Committee, chaired by Garry Merkel, INAC regional forester in B.C., is planning a symposium to bring together such prospective participants as native

leaders, community forest managers, and federal-provincial agencies. The symposium, titled "Native Forestry - Ethic to Reality", is scheduled for November 22-24, 1989 at Canada Place in Vancouver. The theme of the three day event - "How do we convert the traditional native land ethic into a modern day operational reality?", is expected to attract participants from across Canada and the U.S.

The National Native Forest Resource Association Committee is studying the feasibility, possible structure and mandate for the association. This committee is chaired by Harold Derickson, President of the Intertribal Forestry Association of B.C.

It is hoped that if a strong national body can be developed, it will be able to work more directly with senior government, and expand economic opportunities for natives in forestry. For more information on working group and committee activities please contact the committee chairmen as follows: Art Dedam (613) 238-5780, Garry Merkel (604) 666-5097 and Harold Derickson (604) 769-4433.



# Fight Fire With Fire?

TYPE OF OPERATION	FIRE-FIGHTING EQUIPMENT
<b>Power Saw at refuelling point</b>	1 fire extinguisher and shovel
<b>Mobile Equipment</b>	1 shovel, 1 pulaski or mattock, 1 fire extinguisher
<b>Portable Sawmill</b>	as above plus 1 water tank with 4 500 litres of water, 1 pump unit; clear area of flammable fuels to 30m
<b>Cutting, grinding, welding</b>	2 shovels, 1 fire extinguisher, 2 (18 L) hand-tank pumps; clear area of flammable fuels; watchman during and up to 30 minutes after operations
<b>Explosives</b>	2 shovels, 2 (18 L) hand-tank pumps

Equipment required by B.C. "Forest Fire Prevention Regulations"



Basic fire-fighting tools

Protecting a forest is just as important as promoting its growth. Indeed, a carefully protected forest is a growing forest. But a healthy stand can be wiped out easily by human negligence. As a matter of fact, over half of B.C.'s forest fires are caused by people.

What can you do to protect **your** forest from fire? Fuel management has become today's buzzword in the forest industry. A fuel management plan is required for Woodlot Licences (and recommended for Indian and private lands) as part of the five-year Development Plan—it identifies potential fire hazards and the fuel management strategies to combat them.

There are several ways fuels (slash and wood) can be handled to reduce the risk of forest fire:

- use wood on-site, such as slash, for firewood or small log products.
- limit cutblock size where slash disposal might be difficult.
- leave stands of timber as firebreaks.

You can reduce the chance of fire

# of People	Axes	Shovels	Pulaskis\ Mattocks	Hand-tank Pumps
4-8	1	2	1	2
9-15	2	4	4	2
16-25	3	6	6	4
26-40	4	10	8	6

*The number of people on site will determine how much equipment you need*

spread through prescribed burning, and through the use of firebreaks (areas of less flammable fuels) and fuelbreaks (areas where fuels have been removed). Building fire guards around areas of high risk, such as slash, is also extremely important.

Check the fire danger at the local B.C. Ministry of Forests District Office so you can manage the activities that take place in the forest: when is it safe to use campfires? when should forestry operations and access be restricted? It is important to take special precautions in cutting, grinding or welding metals, and to

provide watchmen and sufficient fire-fighting equipment in areas where forestry work is being carried out.

Be prepared. Have the appropriate fire-fighting equipment on hand for the size and type of operation, and maintain an overall fire check routine for your forest during periods of high fire hazard and after lightning. Also, make a plan for initial attack if and when a fire occurs. Woodlot Licensees, Indian bands and private land owners participating in some assistance programs are required to develop a fire pre-organization plan as part of the Forest Management Plan for

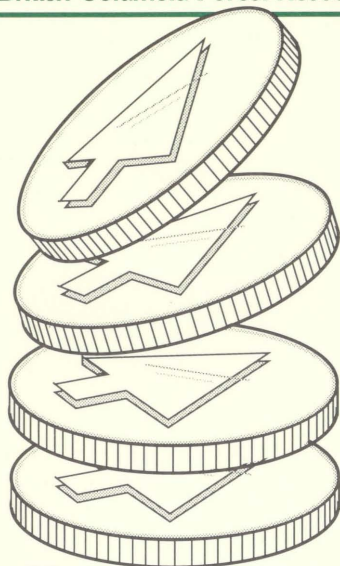




Forestry Canada  
Forêts Canada



## Canada - British Columbia Forest Resource Development Agreement



# Is Small Business Forestry Your Business?

### Introduction

The Small Business Forest Enterprise Program (SBFEP) of the B.C. Ministry of Forests (BCMF) has been expanded and modified, creating new opportunities in the forestry industry for all B.C. residents and firms.

The SBFEP has three principal objectives:

*(Fight Fire With Fire? Cont'd.)*  
their forest lands.

B.C. "Forest Fire Prevention Regulations" require the following

The general policy of the Ministry of Forests is to make sure forest fire control action is taken on any land, regardless of ownership or tenure. The Department of Indian and Northern Affairs has made arrangements with the Ministry of Forests to suppress fires on Indian Reserve lands.

**New Opportunities:** Through competitive timber sales, the program provides an opportunity for individuals and firms to enter the forest industry and establish new businesses.

**Diversification and Employment:** Timber will be sold to promote and stimulate the production of specialty and higher-valued forest products. Sales, to encourage value-added uses of timber, are expected to lead to further diversification of the forest industry and increased regional employment.

**Competition and Profit:** The marketing of timber through a competitive process ensures that the most efficient firms are awarded timber sales and the province receives a fair rate of return for the forest resource.

### Recent Policy Changes

A key element of the new forestry policy is an increase in the amount of wood sold through the Small Business Forest Enterprise Program.

Through amendments to the Forest Act which were approved by the B.C. Legislature, the amount of timber sold under the SBFEP is expected to double from 7% to approximately 15% of the harvest from provincial land.

### Program Management

The SBFEP is managed by the Ministry of Forests on a for-profit basis.

The best approach to fire protection is to reduce the chance of fire. Remember to utilize wood to its maximum, and keep all harvesting and silvicultural operations as clean as possible. Be attentive to fuel buildup in areas where equipment is operating, and carry out ongoing slash disposal.

By following these preventive measures you can be assured your forest will have a better chance avoiding the devastation of wildfire.

Under the program, the Ministry assumes responsibility for the construction of logging roads and bridges, silviculture and other forest management requirements that are incidental to operations that yield small business revenue.

A Small Business Forest Enterprise Account receives all revenues and is the source of funding for all program expenditures. Revenue in excess of funds required for current expenditures and future silviculture obligations is returned on an annual basis to the province's General Fund.

An annual business plan outlines the program's revenue goals and expenditure limits. Program performance is monitored through quarterly reports submitted to Treasury Board.

Bands wanting more information on the Small Business Forest Enterprise Program should contact their local office of the B.C. Ministry of Forests.

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### TREE TALK

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Forestry Canada  
Pacific Forestry Centre  
506 W. Burnside Road  
Victoria, B.C., V8Z 1M5  
(604) 388-0600

**Mark Atherton, Program Coordinator**  
**Indian Forest Lands Program**  
**Rona Sturrock, Editor**  
**Maria Stewart, Writer**

# Canada

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