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## 10.0 FOREST PROTECTION

### 10.1 Insect and Disease Protection

Since the late 1960's, nearly all mature **softwood** stands and many younger **stands** across the island of Newfoundland have been damaged by various insect pests. The major **defoliators** (spruce **budworm**, hemlock looper, and balsam fir sawfly), have had serious and adverse impacts on the forest. Protection of the forest from insects and disease is a vital component of Corner Brook Pulp and Paper Woodlands' forest management strategy.

#### 10.1.1 Insects

The **Newfoundland Forest Service** operates an Insect and Disease Protection Program which has included, in recent years, a successful large-scale aerial spray program to combat the spruce budworm and hemlock looper. A more recent problem has been an infestation of balsam fir sawfly in **second-growth** managed stands (Figure 10-1). Corner Brook Pulp and Paper Woodlands is working with government to develop and implement an integrated pest management program to combat this insect population. In addition to the three major defoliators noted above, other pests can cause reduced growth, stunted trees, branch mortality, and even tree mortality within localized stands. Some common pests of concern are the yellow-headed spruce sawfly, balsam woolly adelgid, and blackheaded budworm.



**Figure 10-1.** Forest landscape showing the effects of a balsam fir sawfly outbreak.

## Management of Insect Outbreaks

Corner Brook Pulp and Paper Woodlands cooperates with the **Newfoundland Forest Service** to conduct surveys to forecast insect outbreaks and map damage caused by defoliating insects. These agencies also cooperatively carry out research programs to develop effective, environmentally acceptable insecticides to control insect outbreaks. The **Newfoundland Forest Service** carries out required insecticide spray operations under license from the Department of Environment. Corner Brook Pulp and Paper Woodlands work with the **Newfoundland Forest Service** to plan spray blocks and set priorities for treatment on Company timberlands.

### 10.1.2 Disease

Forest diseases in Newfoundland affect both living and dead or dying trees. Diseases that are problems for the forest industry include Armillaria root rot (shoestring fungus), heart rot in living trees, and sap rot in dead and dying trees. Because root rot is a natural end to living wood, it cannot and should not be eliminated from the forest ecosystem. However, a better understanding of tree diseases and their interaction with the environment would assist in developing tighter controls and monitoring, to ultimately reduce loss of wood fibre by root rot.

### 10.1.3 Minimizing Wood Loss

Corner Brook Pulp and Paper Woodlands will continue to cooperate with the Newfoundland Forest Service in controlling insects and diseases, to minimize timber volume losses and protect **silviculture** investments. Observation and reporting on the incidence of insect and disease damage by Corner Brook Pulp and Paper Woodlands is part of this cooperative effort. The Company also attempts to minimize the effects of insects and disease through modification of its harvesting and forest management activities. This is accomplished through early harvest scheduling of insect-infested or disease-ridden stands, complete removal of all infected trees within a harvested stand, harvesting stands before they become over-mature, and prompt utilization of timber to reduce sap rot losses.

## 10.2 Fire Protection

Although the **Newfoundland Forest Service** provides primary forest fire protection on Company timberlands, Corner Brook Pulp and Paper Woodlands provides assistance with this responsibility. In accordance with the Forest Fire Regulations of the **Forestry Act**, Corner Brook Pulp and Paper Woodlands must provide fire-suppression equipment and take the necessary action to prevent and fight forest fires within its **operating areas**. Initial administration of fire outbreaks on Company limits falls directly under the Company District Superintendent, until the **Newfoundland Forest Service** can assume responsibility. The Company has an **Emergency Response Procedures Manual** for each operating area which provides specific emergency procedures for employees in the event of a forest fire.



**Figure 10-2.** Aerial view of a forest fire.

### 10.2.1 Fire Management

Corner Brook Pulp and Paper Woodlands has developed an additional fire management document for use on weekends and holidays, when contractor and **company operations** are shut down. This ***Fire Preparedness Plan*** contains the following information:

- Proper procedures for fire reporting
- Company forest fire call numbers and names and telephone/cellular numbers of key Woodlands fire management personnel
- **Newfoundland Forest Service** call numbers, names and telephone/cellular numbers of key government forestry personnel, and a schedule of provincial forest fire duty officers, and regional forest fire duty personnel
- Weekend and holiday duty roster for Company personnel during the forest fire season
- Schedule of required fire-suppression equipment for each **contractor operation** and Company silvicultural operation

### 10.2.2 Fire Equipment

The Operations Superintendents are responsible for the allocation and testing of fire-suppression equipment on all work sites in their respective areas, as well as the establishment of reserve supplies of equipment for use during a major outbreak. At the startup of each season, the Operations Superintendents (or designate) inspect all job sites to determine whether adequate fire-suppression equipment is on hand. During the off-

season, the contractor stores all equipment in a safe, dry location. Any contractor who has been assigned fire equipment by Corner Brook Pulp and Paper Woodlands is responsible for maintenance, as well as replacement, of any missing equipment.

Prior to the start of the fire season, Corner Brook Pulp and Paper Woodlands submits maps to the **Newfoundland Forest Service**, showing the locations of operating areas, and lists detailing the fire-suppression equipment established at each location. Forestry regulations state that fire-suppression equipment be provided on all Company and **contractor operations** at the ratio described in Table 10-1.

In addition to the existing fire protection initiatives, Corner Brook Pulp and Paper Woodlands will pursue the following:

- The introduction of a self-regulated standard for fire equipment on all timber production operations on Company timberlands
- A replacement program for fire equipment as required, and the acquisition of new equipment to improve the Company’s ability to combat forest fires
- The establishment of maintenance standards for fire equipment on contractor and Company operations
- Manually or automatically-activated fire-suppression systems on all new equipment

**Table 10-1.** Specifications for fire-suppression equipment required on operating areas.

Employees	Back Tank Pumps <sup>1</sup>	Axes	Grubbers or Shovels
5 or less	1	1	1
6 to 10	2	2	2
11 to 15	3	3	3
16 to 20	4	4	4
Over 20	For each group of 5 additional employees, add 1 back tank pump, 1 axe and 2 grubbers or shovels to the above figure. For every 20 employees on the operation, add one forest fire pump of a type approved by the Newfoundland Forest Service, complete with accessories and a minimum of 610 metres of forest fire hose.		

<sup>1</sup> The back tank pump must have a capacity of 20 litres and be of a type approved by the Newfoundland Forest Service.