

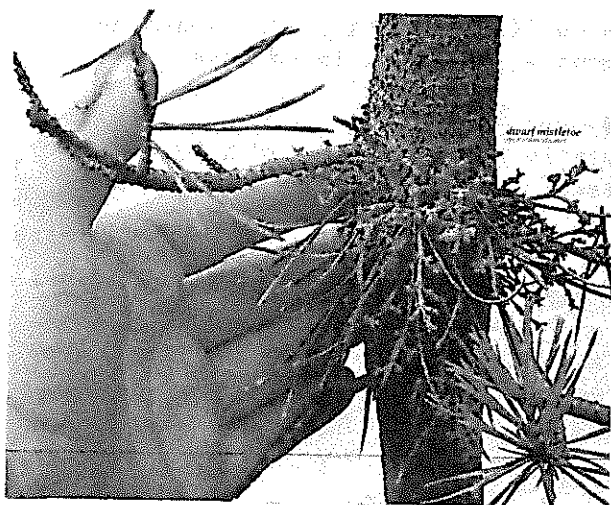


Province of
British Columbia
Ministry of
Forests

PesTopics

ALL IS NOT WELL UNDER THE MISTLETOE

Mistletoe is usually associated with Christmas, kisses and jolly times. But in the forests of B.C. the dwarf mistletoe is a debilitating parasite which seriously reduces yields and, consequently, affects the provincial economy.



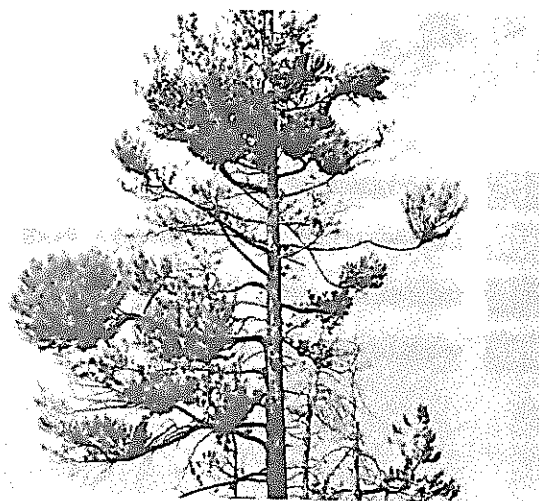
The Christmas decoration is "Leafy Mistletoe", an imported species which grows on deciduous trees. Dwarf Mistletoe* is another story - it is a home grown parasite which attacks conifers, the foundation of the B.C. economy. In B.C. four species of these parasitic plants live on the sap of host trees and severely diminish their vitality. They attack hemlock on the coast, lodgepole pine in the central interior, and Douglas-fir and larch in the southeastern interior.

Losses generally go unrecognized because mistletoe does not usually

produce noticeable injury, or death. But a survey conducted in the Cariboo region indicates that 70% of the area's lodgepole pine is infected by mistletoe which could reduce wood supply by as much as 20%.

It is usually difficult to identify infested trees. They may be too tall or too close together for a good view of their crowns where the mistletoe lives. On small trees, mistletoe symptoms are very inconspicuous, requiring expert identification.

When infestation is severe, dwarf mistletoes cause a condition known as "witches broom": a large cluster of elongated, spindly and contorted branches. Brooms drain off nutrients which otherwise would be used to grow wood and foliage. They grow to substantial size and weight and, because they often fall, they can be a hazard in picnic areas and campgrounds.



* Dwarf mistletoe is a parasitic seed plant of the genus Arceuthobium

PesTopic #4, August 1982.

Even though dwarf mistletoe seeds are shot explosively from parent plants for distances of up to 20 meters they are slow to spread from tree to tree. However, 10 mistletoe-laden trees, left 15 years after logging, can infest an entire hectare (2.5 acres) of new replacement forest.

There are few direct controls of mistletoe. Spraying is not effective, and pruning is expensive. What can be done?

Killing the infected tree is the surest way to kill its mistletoe. Trees can be cut, burned, knocked down by heavy equipment, or injected with herbicides. Of course, such measures must be used with caution. The most efficient and economical control is to

remove all sources of mistletoe when a stand is logged.

Mistletoe control is also feasible when young stands are thinned for better spacing. Young infected trees are cut wherever possible, but detection requires training and experience.

As standards of forestry are raised throughout the province, the outlook for reducing losses caused by dwarf mistletoe is promising. Forest managers realize that dwarf mistletoe takes a heavy toll of B.C.'s forest growth and are incorporating control measures into their management programs.

In the future mistletoe may well be confined to its yearly appearance indoors, where it is welcome.

- Acknowledgements:
1. Photo - ForestTalk, Winter '81.
 2. Photo - Canadian Forestry Service, Pub. BC-X-72
 3. Map - Canadian Forestry Service.

DWARF MISTLETOES: THEIR EXTENT AND THE TREES THEY INFEST

