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PEST REPORT

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AMBROSIA BEETLES IN BLOWDOWN TIMBER ALONG KITSAULT RIVER, PRINCE RUPERT REGION

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A survey[1] of an ambrosia beetle infestation in large diameter western hemlock, amabilis fir and Sitka spruce blowdown was made of 1200 hectares along the Kitsault River about 140 km north of Prince Rupert. Areas of difficult access were visited by helicopter. These trees were windthrown in the Fall of 1978, and the beetles have had two years to build up.

Both species of ambrosia beetles (Trypodendron lineatum and Gnathotrichus sulcatus) were found, but the former accounted for 80-90% of the population. About 80% of all windthrow was attacked. General attack intensity throughout the area was moderate, averaging 15-20 entrance holes/0.1 m^2. Some large diameter stems, however, contained up to 50 entrance holes/0.1 m^2.

The striped ambrosia beetle, T. lineatum, which causes the most damage, is a small, shiny, dark brown beetle about 3 mm long. They degrade lumber and plywood by burrowing into the sapwood of logs, in windthrow, felled-and-bucked,

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1 By C.F.S. forest pest technicians H.P. Koot and D. Doidge and Ministry of of Forests Bill Jackson and Wayne Stucklberger.

on rights-of-way, in booms and in dry land sorting and storage areas. Logs are attacked during April, May or June. Piles of white boring dust on the bark surface are evidence of ambrosia beetle attack. After penetrating the wood, beetles spend 6-10 weeks in the logs while their brood develop. During July and August, surviving parent beetles and young beetles leave the brood logs and fly to overwintering sites (rotting logs, stumps, duff) where they remain until the following spring to repeat the cycle. The life history of G. sulcatus is similar except that all stages of the insect develop and overwinter in the wood.

A logging company, using both conventional and helicopter methods, is moving infested wood to tidewater, where sawlogs are bundle-boomed and readied for export to Japan as whole logs. Pulpwood is destined for local mills. Much of the wood will be in the water during the major insect flight period (July and August) where it should pose a minimal threat of spread. A large percentage of the beetles would be killed providing they were submerged for a period of at least 6 weeks. Without total submersion of all logs there is no guarantee all beetles and their progeny will be killed. This problem is of major concern to the Company, as acceptance of insect infested wood by the importing country generally is restricted.