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PEST REPORT

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FIDS PEST REPORT 95-18

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SUMMARY OF FOREST PEST CONDITIONS IN THE PRINCE GEORGE FOREST REGION, 1995

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This report summarizes the major forest pests active in the Prince George Forest Region. Information on bark beetle infestations is not complete as aerial surveys will not be finished until late fall.

The area of mature white spruce killed by the **spruce beetle** is down drastically from the 1994 level of 70 000 ha. An estimated 30 000 ha of attack has been detected in the Mackenzie Forest District. Currently attacked trees are rare in the Prince George District after almost 13 000 ha was recorded in 1994. However, increased levels of mortality are expected in the Fort St. James Forest District where over 5 000 ha were mapped last year. The **two-year-cycle** budworm defoliated spruce and balsam over more than 60 000 ha, mainly in the Fort St. James Forest District. Mostly moderate and severe defoliation, 42 000 ha, was mapped in the Nation River drainage, south of Nation Lakes, and along Silver and Ominicetla creeks. In the Mackenzie Forest District over 5 000 ha of light defoliation was noted on both sides of Finlay Reach in the Ospika and Osilinka River drainages. **Eastern spruce budworm** populations were down as predicted by egg sampling in the fall of 1994. Mostly light defoliation was mapped over 27 000 ha compared to 172 000 ha in 1994. This is the lowest level of eastern spruce budworm activity recorded in over 10 years. The majority of the defoliation occurred along the Liard and Toad rivers from Beaver River to Sulphur Creek, in the Muskwa, Tuchodi, and Tetsa rivers drainages and scattered along the Fort Nelson River from the Snake River to Liard River.

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Balsam bark beetle continued to kill alpine fir over a wide area throughout the region. In the Mackenzie Forest District alone over 17 000 ha of beetle killed trees were recorded during aerial surveys limited to drainages around Williston Lake. In the Fort St. James Forest District 34 000 ha of balsam mortality were mapped in just two areas, the Nation Lakes and Sustut River, over 32 000 ha were reported throughout the Fort St. James Forest District last year. Increases in the area of mortality are expected to continue in 1995.

The area of recorded lodgepole pine mortality due to attacks by the **mountain pine beetle** is expected to increase for the seventh consecutive year. Early reports indicate a large increase in the number of red trees in the southwest area of the Prince George Forest District and continued expansions in the Fort St. James Forest District. The number of attacks by the **sequoiae pitch moth** in spaced lodgepole pine stands appears to be increasing. Broken stems at the point of attack were noticed at several locations during young stand surveys. **Pine needle cast** infected foliage of lodgepole pine throughout the southwestern area of the Prince George Forest District and in the southern portion of the Vanderhoof Forest District. The needle disease is prevalent in 5-30 year old stands of lodgepole pine in the Blackwater and Chilako river drainages, in stands off the Bobtail Forest Service Road and along Highway 16 from Quesnel to Prince George.

Attacks by **Douglas-fir bark beetle** are expected to decrease in the Prince George Forest District but increase in the Fort St. James Forest District. Over 2500 ha of beetle attacks were recorded last year mostly in the Prince George Forest District.

No defoliation by the **western hemlock looper** was recorded or populations detected this year as predicted by 1994 egg sampling. Three years of severe defoliation caused over 40% mortality of mature western hemlock and western red cedar in the Interior Cedar Hemlock biogeoclimatic zone.

Forest tent caterpillar defoliated almost 55 000 ha of trembling aspen up from 41 000 ha in 1994. In the Prince George Forest District tent caterpillar populations increased for the third consecutive year to 33 000 ha. In the Robson Valley Forest District the area of defoliation increased to almost 7 000 ha after a decrease was note last year. Populations increased in the Dawson Creek Forest District defoliating trees in and around Taylor for the third consecutive year. For the first time in over 15 years the tent caterpillar has caused serious defoliation in the Fort Nelson Forest District. Tree mortality caused by several consecutive years of tent caterpillar defoliation has begun to become apparent in the Prince George Forest Region. An estimated 1400 ha of aspen mortality were mapped from south of Prince George to the Cottonwood River. **Satin moth** populations have become established in the Robson Valley causing severe defoliation of trembling aspen and black cottonwood from

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McBride to Valemount. This infestation is the northern extension of the satin moth in British Columbia. Defoliation of mainly trembling aspen by the **large aspen tortrix** continued over several thousand hectares for the fifth consecutive year. In the Vanderhoof Forest District defoliation was noted for the third consecutive year in the Nechako river valley over an estimated 2 000 ha. Feeding was also reported in the Dawson Creek and Mackenzie forest districts with over 2500 ha of damage recorded in each district.

Approximately 25 plantations between 5 and 30 years old were surveyed for pest problems during pest of young stand surveys in 1995. The most frequently occurring pests were the **blister rusts**, **western gall rust**, **animal damage** and **sequoiae pitch moth**.

Assessments at the four **Acid Rain National Early Warning System (ARNEWS)** plots, found no evidence of acid rain damage. At the Averil Lake plot in the McGregor Model Forest a five-year assessment including height, diameter, foliar and soil chemical analysis, and shoot growth rates and foliar retention and health were carried out.

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