



PEST REPORT

Pacific and Yukon Region • Pacific Forestry Centre • 506 West Burnside Road • Victoria, B.C. • V8Z 1M5

FIDS Report 92-17

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**Two-year-cycle Spruce Budworm
in the
Prince George and Quesnel Forest Districts**

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SUMMARY

The two-year-cycle spruce budworm, Choristoneura biennis, is damaging the buds of alpine fir and white spruce in the Bowron and Willow river drainages. Infested bud counts at four locations in the Prince George Forest District indicate increasing populations. The average percent buds infested by larvae increased to 16% in 1992 from 10% in 1990. Five surveys in the Quesnel Forest District indicate increased defoliation in 1992. The average percent buds infested by larvae increased to 45% in 1992 from 13% in 1990. Aerial surveys in August are expected to show the complete extent and locations of feeding.

Defoliation has been recorded periodically in this area since 1914, with 800 000 ha defoliated in 1962. Up to 10% top-kill can occur with extended severe defoliation, but mortality is usually limited to understory trees. The most important problem caused by the budworm is increment loss. Damage appraisal plots near Babine Lake had a 76% increment loss due do to severe budworm defoliation in a study done in 1961.

Control has been limited to disease, parasitism and weather. Chemical control programs have not been used against the two-year-cycle spruce budworm in British Columbia.

Location	Percent buds infested	Predicted defoliation * for 1992
<u>Prince George Forest District</u>		
8 km Tumuch Rd.	18	moderate
16 km Tumuch Rd.	20	moderate
7 km Everett Cr.	20	moderate
15 km Everett Cr.	7	light
Average	16	moderate
<u>Quesnel Forest District</u>		
Rucheon Cr.	10	light
Stanley	80	severe
Wells	40	severe
Antlers Cr.	45	severe
Barkerville	50	severe
Average	45	severe

* 1-15, light; 16-30, moderate; 31+, severe.