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## RESEARCH COLLOQUIUM SERIES

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**Friday**  
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**3:30 - 4:25**

**Weldwood Theater**  
**7-238**

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## APPLICATION OF *BACILLUS THURINGIENSIS* AGAINST 2-CYCLE BUDWORM AT MT. TOM IN 2012

The biological insecticide *Bacillus thuringiensis var kurstaki* has been used for many years against major forest insect defoliators in North America. For the first time, it was decided to try it against the 2-cycle budworm in stands of Engelmann spruce and subalpine fir in the higher elevation Mt. Tom research forest east of Quesnel. A total of 890 ha were aerially treated at a rate of 2.4 litres per ha in early July 2012. Applications were made with a Hiller 12ET helicopter equipped with 4 Beecomist 361A ultra low volume hydraulic sprayers under good spray weather conditions. Efficacy sampling revealed significant population reductions due to treatment of 75-95% on subalpine fir but none on Engelmann spruce. Defoliation was significantly lower on all the treated subalpine fir, but not on the Engelmann spruce. The treatment also significantly reduced moth egg mass deposition by 85-88%. I will discuss some of the challenges of treating this insect and suggest some possible improvements for future work.