Bugs & Diseases

August 1998

info note

Budworm beware: NWB sprays again!

In an effort to control a part of the spruce budworm infestation within the Upper Hay District, a biological insecticide (B.t.k.) was sprayed over an area of white spruce stands west of Steen River, along the Cameron Hills. These stands were targeted for spraying based on the results of the previous year's aerial defoliation and overwintering larval (L2) surveys.

Aerial spray operations were conducted between May 27 and June 5 from the Steen River Tanker Base. The B.t.k. product used in this year's program was Foray 48B®. An estimated 5395 hectares of severely infested white spruce stands were sprayed twice with Foray 48B® and 3406 hectares were sprayed once. One spray aircraft (SR2 – Thrush) equipped with a SATLOC Forestar GPS guidance system was used to complete all applications of insecticide. The level of effectiveness of this year's spray program will be known after the completion of the fall L2 survey in mid-October. ◘

Mike Maximchuk
NWB Forest Health Officer

MPB bugging Willmore

The Willmore Wilderness Park is becoming an area of concern for insect infestations. Each year 16 mountain pine beetle and 10 spruce budworm pheromone plots are set up. In the 1997 survey year, nine mountain pine beetle plots had successful attacks with a maximum of 60 hits per tree. Early in June, Land and Forest Service, Natural Resource Service, and Weldwood of Canada Ltd. employees worked co-operatively on a pine beetle control program in the Willmore. During the three days seven trees were felled and debarked, seven trees were left standing and debarked, and nine trees were cut and burned.

The controlled sites were checked later in June and new hits were noticed on five of the sites where the trees had been debarked. An aerial survey and plot check is planned for the first week in September. Once the sites are assessed, a control program for the end of September will be planned.

Jasper National Park is in the process of developing a Forest Insect and Disease Management Plan. Information will be shared between JNP, Land and Forest Service, and the B.C. Forest Service to determine the extent of the existing problem, potential risks, and develop a long term program if needed. ◘

Erica Lee
NES Forest Health Officer

Looking for pests in NEB

Aerial surveys for forest tent caterpillar and spruce budworm have now been completed

in the Northeast Boreal Region with the assistance of Jim Weber of the Canadian Forest Service. There was no evidence of forest tent caterpillar defoliation, though a few areas of aspen dieback were mapped, most of it having been mapped in previous years however.

The spruce budworm survey encompassed two days of flying along several main rivers and associated tributaries from Algar Lake north to Fort Smith. Preliminary results indicate that the budworm population is about the same as last year.

The forest tent caterpillar pheromone traps were collected in early July with a total of 114 moths found in the traps. These were found at the same sites in the Bonnyville area as last year. A handful of satin moths were also recorded at these sites.

Upcoming activities include field work to support a study on budworm morphological characteristics, L2 surveys, and aerial survey map revision. ◘

Sarah Schwartz
NEB Forest Health Officer

Aerial bug patrol in NWB

Aerial surveys were once again conducted to record the extent and severity of aspen and spruce defoliation within the region. A significant increase in forest tent caterpillar, large aspen tortrix and spruce budworm activity was observed this year. The visible damage associated with these forest pests was present much earlier in the year than normal. This was due to the warm spring temperatures that enhanced larval development and survival rates.

Large areas of aspen defoliation attributable to the forest tent caterpillar were observed in the Grande Prairie, Peace River and Manning areas. Large aspen tortrix defoliation was observed along the Peace River near the British Columbia border and in the Saddle Hills, north of Grande Prairie.

Budworm on the rise

Spruce budworm defoliation within the Upper Hay District increased dramatically this year. Of the most significance were those areas that were previously sprayed in 1995 and 1996 and had no visible signs of defoliation for the previous two years. This included an area north of the Paddle Prairie Metis Settlement, areas along the Chinchaga and Hay Rivers, an area along and west of Sousa Creek and an area north of Zama City. Other areas of new defoliation that were not present last year include along the South Shekilie River at the British Columbia border, an area west of Zama City and an area west of Indian Cabins along the Cameron Hills.

Within the Mackenzie District, severe areas of defoliation were again found in the Hawk Hills area, in the Paddle Prairie Metis Settlement and in a small area along the Peace River, near Dunvegan Historical Park. ◘

Mike Maximchuk
NWB Forest Health Officer

NWB lures in pests

As in previous years, pheromone traps have been established throughout the Northwest Boreal Region to monitor populations of the spruce budworm, forest tent caterpillar and gypsy moth. There are currently 49 spruce budworm pheromone sites with two traps at each site. The male moths lured into the traps will provide an estimate of population sizes in various areas of the region.

A total of 10 forest tent caterpillar sites, with six traps per site, were also established within the region. Although there has been no active management to control this pest within the

region, the data collected will provide a baseline for further management if necessary.

Gypsy moth pheromone traps were established in thirteen sites this year. Monitoring for this pest is important due to the potential widespread severe defoliation of many tree species. Pheromone sites have been set up in public recreation and transportation areas as the moth and/or eggs would most likely enter the province via motor vehicles and railway cars.

Trap collection for these three pests will commence in August with the data available at a later date. ◘

Mike Undershultz and Angie Hague
NWB Forest Health Technicians

New FHO!

We would like to welcome Erica Lee, our newest Forest Health Officer, in the Northern East Slopes Region. Erica graduated from the U of A in 1996 with a Bachelor of Science in Environmental and Conservation Science. She has experience with the range management and weed control programs in Whitecourt. She will be working at the Hinton District Office. ◘

Bugs & Diseases

Vol. 9 No. 2 ISSN. No. 1499-5867 *info note*

Published quarterly (Apr., Aug., Dec)
by the Forest Health Branch,
Forest Protection Division,
Alberta Land and Forest Service (LFS)
Department of Environmental Protection
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Bugs & Diseases informs LFS, Industry and other forestry-related personnel about current forest health issues.

Articles and ideas are welcome! Submission deadline is the 15th of the month before publication.

Pest management: everybody's business.

The gypsy moth, a quarantined pest for international trade, is well established in the Eastern Canada. However, gypsy moth is not yet established in BC because the yearly infestations are being actively controlled.

This spring a permit was issued to conduct aerial spraying of B.t. around the City of Victoria. However, some residents and groups against aerial spraying appealed the decision to issue the spray permit. During the BC Appeal Board hearing concerned citizens presented their case. Forest industry did not take this serious, since gypsy moth is an urban pest. The Board made a decision to not allow aerial spraying of B.t. based on the concerns of a few.

Since BC is no longer actively eradicating gypsy moth, the U.S. is planning to set up a quarantine, protecting the Pacific Northwest. This means all exported forest products (lumber and others) from BC to any gypsy moth non-infested part of the world must be inspected and certified as gypsy moth-free. It will cost companies unnecessary time and money. Is pest management really someone else's business? ◘

Hideji Ono
Forest Health Branch Manager

Invasion of the long-horned beetle

In 1996, an Asian long-horned beetle infestation was found in the state of New York and was

actively eradicated. Recently, a new beetle infestation was discovered in Chicago. Larval stowaways were apparently brought into the country in wooden crates carrying Chinese imports. The only effective control is to cut and burn all infested trees. Surveys are currently being conducted in Chicago and control plans are being developed. ◘

Poster/pamphlet requests

Copies of the "Important Insects/ Diseases of Alberta" posters, and the "Weed Identification in Alberta" brochures have been sent to each Region for distribution to the Districts. Additional limited copies of the posters or brochures for the Regions, Districts and industry can be obtained from Syd Barker, Warehouse and Distribution Manager, at the Bonaventure Warehouse, 12944-146 St. Edmonton, AB T5L 2H7. His phone number is 427-2700 and fax number is 427-0700. ◘

SBW management guide coming soon!

After years of painstaking planning, writing, editing and revising, the "Spruce Budworm Management Guide" is with the Printing Services, finally! This is a comprehensive guide dealing with "all you wanted to know" about spruce budworm management. It is composed of two parts - the first one dealing with biology and management, and the second on surveys. This guide is expected to be ready for distribution by the beginning of August. It is meant for reading pleasure of LFS personnel. However, you have not heard the last word on budworm management, yet. This is a revisable manual that may indeed get modified in the future. Thus, it is imperative to keep a tab on the recipients of this manual so that any revisions can be mailed out to them. A companion video on aerial spraying operations will also be available to LFS staff who are interested. ◘

Sunil Ranasinghe
Forest Entomologist

Farewell to Jennifer

Jennifer Lukianchuk, PHQ's Forest Health Technical Assistant, has left us to pursue an Environmental Sciences after-degree on the west coast. She worked with the Forest Health Branch for over a year. Good luck on your future endeavors, Jennifer! ◘

Diagnostic system on the web

The Acquired Intelligence Inc. of Victoria, BC has developed a douglas-fir cone and seed diagnostic system to assist with the identification of seed and cone insect pests. This site allows you to determine the probable cause of damage after answering a series of questions. Photos in the conclusion screens can be enlarged by double-clicking.

Http://www.vv.com/ai/pests/pests.htm ◘

COMING UP NEXT ISSUE...

- Summary of 1998 programs
- Survey results