

Federal budget boosts N.B. spruce budworm battle

By Tim Jaques

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The battle against Spruce budworm invading the province from Quebec got a boost in the latest federal budget.

Ottawa will make \$74.75 million available over the next five years to combat the budworm, which will allow the Healthy Forest Network to continue its program of research and treatment, called the Spruce Budworm Early Intervention Strategy. The effort treats localized outbreaks of budworm before they can grow.

"We are really happy that it has come through ... the project has been going on for four years and we have had positive results so far. We are hoping to keep the research going on it," said David MacLean, a University of New Brunswick professor who is chairman and project manager team of the Healthy Forest Partnership

:A lot of effort went into preparing a continuing proposal, so we are really happy to see it in the federal budget."

The partnership (healthyforestpartnership.ca) is a consortium of forestry businesses, government and academia. The spruce budworm is native to much of North America. It turns into a moth, but while it is still at the larval or caterpillar stage, it eats needles off conifers, mainly fir and spruce.

MacLean said the budworm is expanding into central New Brunswick and into the Miramichi. Restigouche is still the main battleground against the budworm moving in from Quebec, and still has the highest budworm population in the province.

"We are going to continue to do the detection, monitoring and treatment of low-level budworm populations wherever we find them, as long as the landowners are in agreement with us doing that. It has been really positive so far

"We are expanding new research topics continuing on the next four years, looking at the possible influence of climate change on outbreaks and some different treatment options. There is expansion as well as continuation."

The insecticides used so far are Btk (short for *Bacillus thuringiensis var. kurstaki*), and Mimic. Both are used in residential settings and in organic farming. The first is a naturally occurring bacterium that kills the caterpillars, and has been used for years to kill tent caterpillars. The second is a natural insect growth regulator that disrupts the caterpillar's regular growth pattern.

MacLean said the group is going to do research on a third option, which relies on pheromones. This would disrupt the ability of male moths to find the females in the forest.

"We have done a little bit with that and had some promising results. We would like to see that continue as well."

Sampling was done last fall to determine what will be done this year.

"The eggs hatch in the summer, and the larvae will be eating the foliage this spring. They are there over winter," MacLean said.

"We are planning on about 200,000 hectares of treatment. It would be up from the previous year, concentrated in Restigouche County, but there is another pocket in the northwest part of the province. It [the infestation] is up, but it is not up as much as we had originally projected it to be."

He said the group believes this shows the effectiveness of the treatment applied so far.

"The difficulty is that there is still a lot of budworm on the Quebec side of the border. ... We are periodically getting these in-flights of moths."

A July 24, 2016, swarm of millions of moths was so big that it was mistaken by Environment Canada radar for snow. That swarm blanketed parts of Campbellton and Atholville with dead moths. Another swarm showed up last year.

The outbreak began near Baie Comeau, Que., in about 2006 or so, said MacLean

"It is 10 years-plus for the oldest part of their outbreak. There is some indication that is starting to decline. But the part of the outbreak that is nearest to us in the Bas-Saint-Laurent and Gaspé area is still building. It has been going since about 2014 and likely still has a few years to run."

Monitoring will start in April and May. Actual spray treatments of affected areas will be in June or July. Later in the year, research will take place to learn what to expect next year.

"We have a pretty good idea of what is going to happen this summer," MacLean said.