



About the Healthy Forest Partnership

The Healthy Forest Partnership is a 4-year research initiative that started in 2014 to protect our forests from a spruce budworm infestation. The partnership is comprised of researchers and representatives from academia, government (provincial & federal), and industry working in collaboration to slow spruce budworm population growth.

The research initiative focuses on monitoring, detecting, targeting, and treating areas of relatively low, but growing, populations of spruce budworm in New Brunswick before they reach epidemic levels.

What is the Status of the Spruce Budworm in Eastern Canada?

- A spruce budworm outbreak started in Quebec in 2006 and has since grown to 7 million hectares in size (New Brunswick has 6 million hectares of forest)
- Not only is the outbreak growing in size, but it is now at the New Brunswick/Quebec border
- In 2014, two budworm hotspots were identified in northern New Brunswick. More areas were identified in 2015 and 2016 south of Campbellton and Dalhousie and along the northern New Brunswick/Quebec border. The areas identified in 2015 were treated; and it is anticipated that the areas identified in 2016 will be scheduled for treatment in 2017
- Annual sampling by project scientists show promising results in reducing spruce budworm populations in treated hotspots compared to control areas through early intervention
- Updated areas of focus can be found on the website www.HealthyForestPartnership.ca

Why is This Important?

An uncontrolled outbreak in New Brunswick could result in the following:

1. 25% decrease (1.4 M m³/yr) in the provincial wood supply over 40 years
2. \$6.7 B loss to the New Brunswick economy over 40 years
3. 1,900 jobs lost every year for the next 30 years

What are the Options?

1. Do nothing and suffer economic and environmental consequences
2. Salvage dead and dying trees after the outbreak starts
3. Keep as many trees alive as budgets allow (traditional reactive foliage protection)
4. Intervene early on targeted areas to slow growth before populations build up to devastating levels (proactive early intervention)



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What is the Plan?

- Aggressively pursue an **early intervention strategy** and associated research through a 4-year \$18 M research project under the ACOA Atlantic Innovation Fund
- Develop early intervention methods using approved insecticides in low level budworm populations
- Protect New Brunswick's forests by being proactive and treating hotspots before they build into large infestations
- Researchers, academia, government (provincial and federal), and industry are working together through the Healthy Forest Partnership to engage communities and stakeholders and advance the important scientific questions

What About the Environment?

- A spruce budworm outbreak in this province would have significant impacts on New Brunswick forests and its environment and economy
- Two of the treatments used in the research project are tebufenozide based, one is *Bacillus thuringiensis* based and one is pheromone based. The insecticides are federally and provincially approved and have been used in other jurisdictions for similar purposes
 - The insecticides used are not harmful to humans or other mammals, birds, bees, or fish when used according to label directions
 - Insecticide control products can only be used in New Brunswick after they have undergone an extensive scientific review by Health Canada that includes health and environmental assessments, including consideration of potential risk to drinking water
 - Spruce budworm is the only species being targeted by the treatments
 - Pheromones are naturally emitted by insects and trigger social responses in members of the same species and pose no risk to humans or other animals. The project uses pheromone simulants to disrupt the spruce budworm's mating cycle
 - These are not new or unknown products—extensive studies have shown treatments of these products are effective against spruce budworm and pose minimal environmental risk
- Insecticide use in New Brunswick is governed by the Provincial Pesticides Control Act and Regulations, which establishes measures with respect to aerial insecticide applications, including issuance of permits. Aerial Application Permits dictate such things as the insecticides to be used, setbacks from homes, water bodies and other sensitive areas (such as point of intake for a municipal drinking watershed area), maximum wind speeds for application, reporting and public notification