Budworm spraying

The battle of the year

by Mike Donovan

On February 3rd, Premier Regan announced in a province-wide television and radio address that it was the decision of Cabinet not to "approve an aerial spray programme for the Cape Breton forests at this time". He described the decision as "the most difficult one Cabinet has ever had to make".

Reaction to the announcement was varied. Lief Holt, President of the Nova Scotia Forest Products Association, said it was "a very sad day for the forest industry of Nova Scotia". John May, a member of Cape Breton Landowners Against the Spray, said "Our position all along has been that the way to overcome the budworm is to properly manage the forests and not to spray them."

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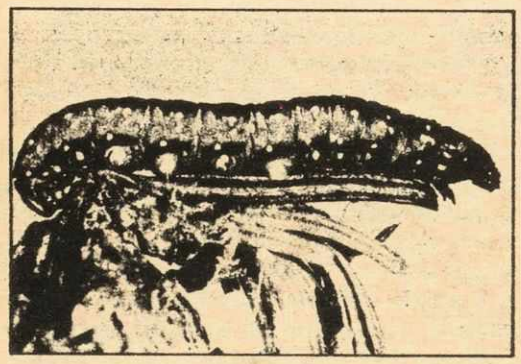
Premier Regan's decision put a temporary end to two years of controversy which began in the spring of 1975. At that time, the Cabinet was under pressure from Nova Scotia Forest Industries (N.S.F.I.), a Cape Breton company owned by Stora Kopparberg Bergstags A.B. of Sweden. Finally, the Cabinet approved an application to spray large tracts of forest land in western Cape Breton which were showing signs of spruce budworm infestation.

The chemical to be used was Fenitrothion, a pesticide that has had very little research done on it. It was introduced in the late 1960s by the forestry industry to replace DDT.

When the government announced approval of a spray programme, local grassroots environmental groups voiced strong disagreement. Their disapproval fell on deaf ears until the Cape Breton Post printed a news leak concerning the chemical. A medical research team from Halifax had linked



The budworm

the emulsifier used in the spray to a children's disease known as Reye's Syndrome.

The research team at the Izaak Walton Killam Hospital for Children had been alerted to the possibility of the connection between the spraying and the disease when it became apparent that all ten of the children admitted to the hospital in recent years with the rare disease were from New Brunswick. That province has carried on an active spray programme since 1952.

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The controversy revolving around the Nova Scotia Cabinet's decision not to spray revealed other skeletons in the provincial closet. Charges of forest mismanagement and governmental sell-out of cheap Crown forest land to foreign multinational companies have been mixed with demands for a profound re-examination of the direction of Nova Scotian policy on development of its resources and the environment.

L.S. Howbolt, the recently retired administrative assistant to Nova Scotia's Deputy Minister of Lands and Forests says, "Good forestry practices, not chemicals, are the answer to budworm-proofing."

Dr. Stephen Manley, a silviculturist with the PEI Department of Agriculture and Forestry, is a little more graphic. He describes the spruce budworm infestation as a "blessing in disguise". He says, "the spruce budworm epidemic is telling us that something is wrong with our forests".

The history of the budworm

The spruce budworm is not a new phenomenon in Atlantic Canada. In 1922, J.D. Tothill, following the outbreak of 1910-1921, observed, "It is plain that the next outbreak may be expected when the existing fir reproduction now being released...becomes tall enough to pass through the crown of the forest so as to form an immense food supply for the insects. On the basis of average annual growth, the next general outbreak may be expected at any time, after the lapse of about thirty years."

True to prediction, in 1952, precisely 30 years later, the budworm attacked again. New Brunswick said "yes" to the spray; and Nova Scotia said "no".

Since 1952, New Brunswick has sprayed every year (except 1959). Over twelve million pounds of DDT and almost eight million pounds of organo phosphates (Fenitrothion) have been dumped on the forests of New Brunswick. Last year alone, the spray programme cost almost nineteen million dollars.

In Nova Scotia, the budworm infestation collapsed from natural causes after five years. An estimated 100,000 cords of fir were killed, of which 60,000 were safely salvaged (the budworm eats only the needles; the wood remains untouched).

Effect on the environment

The insecticides presently being sprayed on the New Brunswick forests not only succeed in reducing the budworm population but also kill

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many other species of insects, including bees, and the budworm's own predators and parasites. In Cape Breton, the Beekeepers' Association, with over 50 members, has actively opposed the spray programme.

Although the insecticide has no direct effect on flora and fauna, it interferes with the forest eco-system in many subtle ways. For example, the spray deprives birds of insects which are their natural food supply. In 1975 alone, three million birds are reported to have been killed as a result of the spray programme.

Plants also depend upon insects in many ways. Certain commercial species, such as blueberries, are highly susceptible to variations in the insect population. Last year, a New Brunswick blueberry operator, Cole Bridges, won a lawsuit against the Province and Forest Production Limited amounting to $58,000.00 for damages to his blueberry crop as a result of the spray.

There are some who say the spray's effect on the environment is exaggerated. Romeo LeBlanc, Minister of the Federal Department of Fisheries and the Environment, has said that the bird population will recover in five short years, while it takes 80 years for a forest to recover. New Brunswick Industrialist, K.C. Irving believes the spray is harmless and ineffective. "No better than dishwater" is his comment.

Although Nova Scotia recovered from the 1952 budworm attack, the insect re-emerged in Cumberland, Annapolis, and Kings Counties in 1970 and in the Cape Breton Highlands in 1974. In the winter of 1975, N.S.F.I., which has a virtual monopoly over cheap Crown land forests and which operates the Point Tupper Pulp mill, directly and indirectly employing 2,000 Cape Bretoners, applied to the provincial government to spray 100,000 acres in the north-central part of the highlands. The license was approved but shortly afterwards cancelled at the insistence of provincial Health Minister, Allan Sullivan, when the Reye's Syndrome connection was made public.

The battle of the year then began. On the one side: N.S.F.I., a woodlot owners' association, the Canadian Paper Workers' Union, Cape Breton contractors and truckers. On the other side: environmental and landowner groups, Cape Breton oyster and sheep farmers, Cape Breton beekeepers, some vocal members of the Nova Scotia medical establishment, and a local group of concerned mothers.

At the height of the dispute in the fall of 1976, much contradictory evidence was being presented

Over 500 people attended a meeting in Port Hawkesbury, N.S. on Jan. 23 to discuss the budworm spraying. It is believed that the meeting was instrumental in Regan's decision not to spray.

by both sides. On December 2nd, Erik Sunblad, President of Stora Kopparberg, gave a press conference in which he said the pulp mill would have to phase out its operations, unless the budworm was brought under control with "properly controlled insecticide spraying".

Cape Breton Landowners Against the Spray, however, pointed out that the mill requires 300,000 cords of wood a year and that even if the budworm kills 50% of the trees (which is unlikely), then there will still be 9 million cords left standing in the Cape Breton Highlands. They argued that furthermore, wood can easily be imported from the mainland, where overmature stands are rotting uncut. In addition, they claimed that with a vigorous salvage operation, 20-40% of the dead trees can be salvaged over the next five years.

N.S.F.I. replied that the company does not have the capacity to process that much wood. They expressed this view in full-page newspaper ads carried in local newspapers, titled "Spruce Budworm — What are the Facts?".

The dispute over whether to spray or not to spray became a battle of facts and projections — each side predicting disaster if the other side's course of action was adopted: economic disaster on the one side and ecological disaster on the other.

In the later stages of the controversy, the tide began to turn in favour of the environmentalists

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and the forest-management advocates. A rumour circulated that some cabinet ministers, including Lands and Forestry Minister Vincent MacLean, threatened to resign if the spray lobby won the day in Cabinet.

At this stage, N.S.F.I. suddenly changed course midstream, abandoned its defence of the chemical Fenitrothion, and began advocating the use of another pesticide, Sevin, which required no chemical-based emulsifier. Sevin, a more expensive pesticide, is currently in widespread use in Maine.

At this time, other insect control substances came to the attention of the public. Among these were Tetradecenal, an insect sex attractant and BT (Bacillus thuringiensis), an anti-budworm organism. Both Sevin and BT were immediately discredited as being too under-researched to warrant use. The American Environmental Protection Agency in Washington, D.C., stated that Sevin was "suspect right now". Dr. Earle Reid, Chief of Medicine at the Halifax Infirmary, pointed out that Sevin's use in Nova Scotia had already resulted in poisoning cases which had

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