

TO AROUSE PUBLIC OPINION

Editor, "Canadian Forestry Magazine":—

MUCH has been said recently in articles for the popular newspapers on the subject of the great damage caused our forests by the spruce budworm; by consequent secondary attacks on the remaining green trees by bark beetles and by forest fires—perhaps the greatest menace of all. This has been said, presumably, in an effort to inform and arouse public opinion and to force action for the better preservation of our forest assets.

Various estimates of the damage done by the budworm in the Province of Quebec have appeared varying from that given by the Chief of the Provincial Forest Service of 75,000,000 cords, to the estimate by the Entomological Branch of the Federal Government of 150,000,000 cords, representing a loss in raw material of from \$750,000,000 to \$1,500,000,000.

The attack of this insect pest has ceased for the present, but it is certain that a further loss, of less magnitude, will ensue as a result of the primary attack of the budworm, through the weakening of the forest crop, which renders it more prone to damage by other insects, particularly by bark beetles. This loss is current and in many cases may continue for some time according as the local conditions of the forest form suitable breeding and feeding grounds for these insects and the measures—if any—that may be taken to combat their ravages. Add to this the enormous losses caused by forest fires, with the consequent increase of the less valuable hardwood species, which, experience teaches us, replace the more valuable conifers after forest fires, it may then be realized that the annual losses from these causes very greatly exceed the amount of timber annually cut and, more serious still, that the capital stock of our forests is being rapidly depleted. In other words, the annual cut plus losses from insects, fires and other causes, which may be classified as largely preventable, greatly exceed the annual growth of the forests.

This state of affairs should not be allowed to continue and the sooner public opinion becomes articulate on the subject, the sooner some action, calculated to preserve the forests, will be taken. Generally the public are inclined to blame the wood-using industries for this situation and this without reason.

In the earlier days of the lumber industry in the province, the lumberman cut only the finest trees of the most valuable species. This was not the best policy, but it must be said that no other course was open to him. Economic considerations demanded that if he were to make a living—indeed if he were to sell timber at all at the competitive prices that then held—he had to have the best timber he could find. Nor was this method of lumbering very harmful to the forests. Only the larger mature trees were removed, an excessive amount of slash and debris was avoided and the remaining stand was left in good condition, self-protected against wind and climatic exposure, and sufficiently open, by the removal of the mature trees, to stimulate the growth of the remainder. Later, as the timber markets improved and as better saw mill and operational methods were evolved, the lumberman was able to cut the more inferior and smaller wood, until, finally, paper mills and pulpwood came into being. The Government trailed along behind this course of events, instead of leading with a constructive forest policy, ever allowing a lower diameter limit without the knowledge of and data on the local forest conditions which governed reproduction, until the present time,

when the Government felling regulations are those best calculated to ruin our forests with the utmost speed.

The effect of these regulations is to have the timber stand so open that it cannot support itself against the wind, with the consequence that the timber, which the logger is not allowed to cut, is blown down and lost both to the industry and to the forest—they leave the floor of the forest too exposed and they help to form breeding grounds for harmful insects. And this state of affairs is laid at the door of the logger, who is but carrying out the felling regulations of the Government!

Let us examine the attitude of the lumber and pulp and paper industries today! . . . Many of the firms have a qualified staff of foresters, who continuously work in the forests, collecting forest data and advising how best to work these forests in order to obtain the best financial results and to insure their continuance in perpetuity.

In some cases the services of entomologists and pathologists have been obtained and valuable research work carried out, in an endeavor to identify the insects and diseases which most endanger our forests and thus to formulate preventative measures.

The forest industries have urged the Government to adopt a more constructive policy; to allow clean fellings under conditions which necessitate it and in cases when reproduction will be assured; to allow the institution of the correct rotation without regard to diameter and to employ the necessary experts in the various branches of forestry for further study and research work in the forests.

For instance, records in the State of Maine over the past hundred years tend to show that the attack of the budworm is periodic and is governed by the physical rotation of the balsam tree. In other words, as soon as the present immature stands of balsam become mature in forests, when this is the predominating species, another attack of the spruce bark beetle can be expected. And the next attack, it is calculated, will be more severe than the present one, owing to the tendency of the species to predominate, due to the stimulus given to its reproduction during the last attack.

In this work of combatting insect attacks the forest industries have so far led the way and borne the expense.

Further, for the preservation of the forests, a defined policy in forest reserves is necessary. At present, loss to the forest is caused by areas being wrongfully cleaned for agriculture, for which purpose the ground is totally unsuited. Forest Reserves in perpetuity should be established. Areas already deforested by fire should, where practicable, be re-seeded and managed on a basis which will ensure reforestation with the desired species of tree. Education of the public is required; teaching in the schools and by the church, and the recognition of Arbor Day. The people already realize the economic value of forests—teach them it is their duty to preserve those forests—that they are the country's greatest assets.

It may be objected that the cost of such schemes will be too heavy. The revenue derived from forests of Quebec is approximately \$3,000,000.00 per annum. What proportion of that sum goes back to the forests for their maintenance and protection? Is there any country in the world, which derives great revenues from its forests, which devotes so small a proportion of that revenue to the upkeep and improvement of those forests as this Province? I venture to think not. And in these circumstances how is constructive forestry possible?

—N. H. R.