

Control of Forests by Trained Foresters

Ontario Places Administration of Forests on Crown Lands Under Practical Men

The opportunity for the beginning of a new era in the forestry situation in Ontario was created by the recent announcement of the Provincial Government that henceforth the timber administration on Crown lands will be under the Provincial Forestry Branch, instead of comprising a separate organization, in which no foresters were employed. This is the most important development which has yet taken place in the forestry situation in Ontario.

By this action, assuming that its logical consequences will follow, Ontario aligns herself with the provinces of Quebec, British Columbia and New Brunswick, which had already recognized the necessity for taking thought for the future by making foresters responsible for the technical administration of Crown timber lands. A partial example had been set by the Dominion Government at a still earlier date, when the Dominion Forestry Branch was placed in charge of the timber administration on Dominion forest reserves in the west, exclusive of licensed lands or timber limits.

Nova Scotia has practically no Crown timber lands, her forests having passed into private ownership many years ago. The need for a provincial forest service there is based upon the opportunity for the development of better forestry practice on these privately-owned timber lands, and upon the urgent need for a greatly intensified system of forest protection, to cover all the forested area of the province.

Prince Edward Island is not a forest province, practically the whole of her land area being under cultivation.

Ontario is then the last of the forest provinces to recognize the necessary and logical connection between forestry and foresters. The recent action should, and no doubt will, mark the beginning of an era in which the fullest practicable consideration will be given to so regulating the methods of cutting on Crown lands as to have them in a condition to produce another crop of valuable timber species. It has been demonstrated that logging operations in which cutting is not regulated with an eye to future productivity are generally destructive to the quality and quantity of the future growth. Each area requires to be carefully studied in advance of cutting, that the method of treatment to be prescribed may be adaptive to local conditions and at the same time be practicable from the operator's viewpoint, to say nothing of being reasonable from the viewpoint of additional cost involved.

Ontario is to be congratulated upon the progressive action taken in thus far recognizing the need for a technical administration of

Crown timber lands. The Provincial Forestry Branch has a great responsibility and a great opportunity for public service in the prospective addition to its previous work of forest protection, of the inauguration of forestry practice upon the great areas of Crown lands which have now come under its jurisdiction. Progress will necessarily be slow; economic conditions must be fully recognized; and it will take time to develop the kind of organization required for so large a task. Public sentiment is now undoubtedly fully ripe for the development of this situation along the most modern lines. It must, however, make itself actively felt, in support of a really progressive forest policy.—*Clyde Leavitt.*

Bark Beetle Control in British Columbia

Many Millions of Dollars Damages Result from Attack—Preventive Measures Successful

About twelve years ago, bark-beetle outbreaks developed in the yellow pine stands of southern British Columbia, particularly in the Similkameen and Nicola districts. The earlier outbreaks have extended and new infestations appeared, until practically the whole yellow pine area shows serious bark-beetle injury. In the valleys about Princeton, more than 150 million feet of yellow pine have been so killed since 1913, and about the same amount in neighbouring valleys is threatened with destruction.

The same injury has been developing rapidly since 1918 in heavily timbered valleys lying northwest of Merritt. Judging from our knowledge of the Princeton outbreak, all this timber, estimated to be worth more than six million dollars, was practically certain to be utterly ruined within the next five or six years. This timber was being administered by the Provincial Forest Branch, the Dominion Forestry Branch, the Dominion Department of Indian Affairs and the Nicola Pine Mills, Ltd.

In the winter of 1919-1920, an attempt was made to save this timber through extensive control operations. An arrangement was made whereby the easily available commercial timber in the worst part of the infestation was sold to the lumber company on the understanding that the timber would be cut within two years and the logging slash burned. Much of this commercial timber was cut last winter and the remainder, including the infested trees, will be removed according to this plan. The two forest branches, Provincial and Dominion, provided funds and men for direct control operations on the higher land and in the less accessible valleys where lumbering normally would not be carried on for years.

The planning and supervision of the control methods were undertaken by the Division of Forest Insects, Entomological Branch, Dominion Department of Agriculture, in co-operation with the various interests affected. Control operations consisted in marking, cutting and burning the infested timber; so as to destroy the broods of beetles over-wintering in the bark and thus prevent further spread of the injury. This work was conducted over many square miles of territory in the Coldwater, Indian Meadows, Midway, and Spinn valleys. Altogether more than 6,000 infested trees were cut and burned sufficiently to destroy the beetle broods contained in the bark. The work was done in the late winter and early spring of 1920. The result seems at this date to have been remarkably effective. Whereas there would otherwise have been thousands of freshly infested trees on that area last summer, there are actually only a few hundreds to be found. Without any doubt, a moderate amount of control work on the same area next spring will stop the further spread of the injury, and save the main stand of timber. It is planned to extend the control work to other infested valleys during the coming spring.

The entire Princeton-Merritt-Kamloops forest, throughout the greater part of which the bark beetle injury is evident, has been estimated by the Commission of Conservation to contain more than two billion board feet of yellow pine, which would be worth to the country in manufactured value between twenty and forty millions of dollars. The bark-beetle outbreaks threaten the destruction of the greater part of this timber before it can be used commercially. Control operations such as those just described, together with the burning of pine logging slash, afford our only hope of checking the injury and saving the remaining timber. Fortunately these promise to be effective.

Similar outbreaks occur in western white pine and in lodgepole pine throughout the southern part of the province, but control work in these species has not yet been attempted.—*J. M. Saito, Entomological Branch, Dominion Department of Agriculture.*

Highest Railway Stations in Canada

The highest railway stations, with their elevations in feet above sea-level, in the respective provinces of Canada are as follows:

Province.	Station.	Feet.
Nova Scotia.....	Folleigh.....	612
New Brunswick, Adams.....		1,204
Prince Edward Id. North Wiltshire.....		311
Quebec.....	Boundary.....	1,850
Ontario.....	Dunkalk.....	1,705
Manitoba.....	Erickson.....	2,053
Saskatchewan.....	Sonata.....	3,171
Alberta.....	Mountain Park.....	5,320
British Columbia.....	Stanton.....	5,332
Yukon.....	Meadows.....	2,924

Cancer Mortality: It Can Be Checked

More Intensive Study Required to Permit Early and Accurate Diagnosis and Treatment

"Once qualify your doctors to diagnose quickly and then properly to treat these cancer cases, and a considerable part of the battle will be won."

Thus does Herbert Snow, M. D., in the September number of "The Nineteenth Century," definitely state the chief necessity in the campaign to overcome the annually increasing mortality from cancer.

The exciting causes of every kind of cancer have long been recognized by every practitioner of experience who has had occasion to specialize in the diagnosis and treatment of cancer. To the inexperienced, unfortunately, cancer is simply cancer, whereas to properly consider cancer causation it is first necessary to segregate the different species of cancer, and not confound all together under a single term, any more so than to include under the broad term "fever" the many varieties of that disease.

There are ten known primary species of cancer, with twenty secondary varieties, and it is essential that a proper recognition of this fact precede any authoritative pronouncement on the causes which operate to induce and multiply the number of cases of this malady.

Mr. Snow, in his summary of reasons why cancer is everywhere increasing throughout the civilized world, emphasizes the fact that present day conditions of life are a largely contributing factor—the system is perturbed and distorted by nervous causes: trouble, anxiety, worry and general wear and tear. The malady is more general among women than among men, while all ranks of society are included.

One of the best preventives, therefore, is the cultivation of a spirit of cheerfulness and of greater equanimity—to overcome the temptation to yield to small and passing worries. Further than this, everything that tends to uphold and sustain physical health and well-being aids in preventing the development of cancer. The forms of malignant cancer which attack men are usually due, in the first instance, to some palpable breach of nature's laws, for which the patient is responsible.

There is evidently nothing that will eradicate a true cancerous growth but the surgeon's knife or the cautery, in one form or another. Nature will occasionally hold it in check, sometimes assisted by proper medical treatment.

What is undoubtedly the first essential, however, in confining and reducing the affection of such large numbers by the cancer malady is a greater recognition of the fact that more attention must be devoted to the better qualification of our medical and surgical practitioners for the early diagnosis and treatment of the disease.