

tion of the quantity, quality and value of the timber on any area, from which the stumpage value may be determined. It will show the quantity and quality of species now of little commercial importance because of lack of market demand, and possibly it may show that these species can be marketed profitably, or where quantity justifies it, to induce industries utilizing these inferior species to operate within the province, thus profitably utilizing material which is at present going to waste.

(2) The estimate of the annual growth will determine whether or not the annual cut can be increased, or whether to perpetuate the industry restrictions should be placed on certain species to regulate the cut.

(3) The information on soils will permit of directing agricultural settlement to districts offering the greatest prospect of success, thus protecting both the future settler and the licensee.

Value in Fire Prevention.

(4) In what way will this Forest Survey benefit Forest Fire Protection in New Brunswick?

First of all we have an excellent base plan from which to build our Forest Protection plan. Our map will show all passable portages, all old portages, and trails, all roads passable for wagons, and all roads passable for automobiles: it will show all telephone lines, all canoeable streams, all camps, the location of all green timber, burned areas, bad slashes, and dangerous points, possible lookout stations, area visible from them, possible observation points and areas visible from them.

From the network of portages and canoeable streams we can plan an efficient system of control; we can see clearly where the tool caches are most needed, where look-outs will be most beneficial. When fires do occur it will show the Forest Ranger where the heavier timber is, and whether the fire is being blown towards timber, a swamp, a heavy slash, and many of the things he needs to know at once. The plans will also show the areas of most danger, where the most of the

recent burns have occurred, etc. Our Chiefs of Party are instructed to collect all local knowledge available regarding all matters of fire protection and to prepare a plan of patrol whether by auto, saddle horse, canoe or by foot as the case may be, showing the location of possible lookout towers, observation posts, tool caches, where fire permits will be necessary to protect the timber from settlers clearing fires, and where the public opinion is so far advanced as to give excellent fire protection at the present time without further development. Our reports will show where debris has accumulated near public highways, railroads and settlements, which should be burned in order to avoid a great fire risk to even human life as well as property. You will see from this that the Forest map of New Brunswick will undoubtedly be of greatest value in planning a comprehensive and efficient fire protection system.

Mapping by Aeroplane.

The great development in the use of the so-called "flying machine" during the last four years gives rise to the expectation that most of our forest fire patrol work will eventually be done by this method, and further it is not unreasonable to expect that before our survey is completed many of our rivers and lakes will be mapped by the highly developed aerial photography.

The figures already compiled by the Forest Survey have shown an enormous loss to the Province of New Brunswick by forest fires. This startling fact, together with the active influence of the Canadian Forestry Association and the Commission of Conservation, resulted in the passing of the new Forest Fires law which was designed to assist in preventing the recurrence of so great a national disaster.

The Fire Permit system of regulating settlers burning slash as provided under the new fire law is recognized as one of the most important advances in Forest Protection and although this law was in force for only a short time during the past