

soil, so that it is doubtful if another growth can secure a footing for many years. The outlook for another spruce crop at any rate is very poor.

The burn in the Otanwan head-waters country is practically the only one where the forest cover is complete and a new crop well started. In that district there is a thrifty young growth of lodgepole pine, jack pine and poplar.

Along the Klondyke trail near Deep creek good reproduction of lodgepole pine is seen, and in the burn in township 65, ranges 6 and 7, west of the 5th Dominion meridian.

The spruce remnants are interesting as showing the natural course of reproduction of the climax types where fire has not disturbed the rotation. In such localities we find that the reproduction under the spruce itself is 90 per cent balsam fir. This is due to two factors; first, to the fact that the fir seeds will germinate and obtain nourishment on ground so covered with litter that the mineral soil is nowhere exposed, whereas the spruce will not, and, second, to the greater tolerancy of the fir. The relation of these factors to the conditions found is evidenced by the fact that where localities are encountered where wind-throw has occurred, in the resulting second growth spruce predominates. Here the sun has had a chance to effect the decomposition of most of the litter and to provide light—conditions suitable for the growth of spruce.

REPORT ON COUNTRY EXAMINED BY DISTRICTS.

MOOSE LAKE.

This district is taken as being bounded on the north and east by the limit of survey, on the south by the Athabaska river, and on the west by a line drawn from the west end of Moose lake to Mirror landing. Moose lake divides this district into two parts, northern and southern.

SOUTHERN.

The southern section is generally gently rolling agricultural land interspersed with scattered sloughs and small muskeg; 50 per cent of this country has been burnt within the last ten years. Timber where left intact is generally poplar, both aspen and balsam poplar, in the proportion of 60 to 40 per cent, with a few scattered large but very limby spruce. Occasional gravelly ridges carry jack pine of pole size. With the exception of a few scattered remnants along the south shore of the lake there is no timber of any consequence between Moose lake and the Athabaska river.

Arens along the lake will total 2.1 million feet. They are situated about one mile back from the lake. They can be taken out via Moose lake and Moose river in high water to Lesser Slave river.

An area of spruce of pole size or better is seen in section 5, township 72, range 26, west of the fourth Dominion meridian. This area is about half a mile square. It contains 16,000 ties and 320,000 feet, board measure, of saw timber. This is a promising young stand, and valuable from its proximity to the Athabaska river, which is only three miles south. In Section 23, Township 73, Range 1, west of the fifth Dominion meridian, is a small patch of spruce about forty acres in area, which will run ten thousand feet, board measure, per acre or 400,000 feet, board measure, in all.