

REPORT ON BRITISH COLUMBIA'S FOREST WEALTH

HIGHLY USEFUL WORK OF CONSERVATION COMMISSION

Foresters of Commission secure Important Data in First of Series of Surveys of Timber Resources of Provinces of Dominion and Possibilities of their Greater Utilization

In the report of the Commission of Conservation on the forests of British Columbia, prepared by H. N. Whitford, Ph.D., and Roland D. Craig, F.E., under the direction of Clyde Leavitt, Chief Forester to the Commission, it is estimated that the total amount of forest land in the province is 149,334 square miles, or 42.2 per cent of the total land area.

The report, which is a volume of over 400 pages, is the result of an investigation conducted by the Commission of Conservation for the purpose of obtaining the most accurate information possible of the extent of the forest resources of British Columbia.

"The extreme variation in the climatic conditions produces a diversiform forest growth," says the report. "The mild and moist climate of the southern coastal region results in the production of very heavy stands of Douglas fir and red cedar; the semi-arid conditions of the Fraser plateau cause open park-like stands of western yellow pine to predominate. In the extreme north the sub-arctic climate precludes the growth of all but the hardiest species. The mountainous nature of the province as a whole also causes local variations in the arboresecent flora, which renders it necessary to secure very detailed information before an estimate of any value can be made as to the local stand of timber." The report has just been published by the Commission of Conservation, Ottawa.

PULPWOOD IN THE PROVINCE.

It will be seen that of spruce, hemlock, balsam and cottonwood, the species suitable for the manufacture of pulp, there is 170 billion feet, to which may be added about 9 billion feet of small timber which was not included in the estimate of the saw-material on the coast. At 700 board feet per cord, this makes 255 million cords of pulpwood available in the province.

TIMBER CUT OR BURNED.

Of the 149,334 square miles of forest land only about one-third now carries timber of commercial value, and on 97,333 square miles of forest land, the merchantable timber has been cut or destroyed by fire, according to the report. Previous to 1917, only about 30 billion feet had been cut in the province. Since most of this timber was cut on the coast, and from the heavier stands, the area logged probably does not exceed 2,000 square miles. The forests on the remaining 95,333 square miles have been devoured by fire.

The report estimates that besides the area on which the commercial timber has been completely devastated by fire, about one-half of the area still timbered with merchantable stands has suffered severely from fire. From these figures and the average stands on unburned areas, the report estimates that the amount of timber destroyed by fire in British Columbia amounts to at least 650 billion feet, or almost 22 times as much as has been cut by loggers. "If this timber had not been destroyed," says the report, "it would represent an asset to the Government, for royalty

alone, of over \$325,000,000. The value from an industrial standpoint would be many times that amount."

RATE OF REPRODUCTION.

The tree species are reproducing themselves on most of this burned-over area. On parts of this area, desirable species are being replaced, but over a large proportion of the fire-swept forest land, the reproduction is of a type inferior to the original forest. For example, throughout the interior, where Douglas fir and spruce species have been swept away by fire lodge-pole pine is growing up to replace them.

"Reliable data concerning the rate of growth of the forests of British Columbia," says the report, "are not available, but a stand of Douglas fir in Washington, forty years old, has been found to have produced an average of 1,000 board feet per acre per year. If we assume that the 97,000 square miles, on which young forests are more or less completely established, produces on the average, only 100 board feet per acre per annum, the total increment would amount to 6,200 million feet per year, or about five times the present annual cut in the province. The realization of this increment is contingent, however, upon the protection of the young growth from fire."

CLIMATE FAVOURABLE.

The report points out that the general climatic conditions of British Columbia are favourable to the luxuriant development of coniferous forests.

The report deals separately with the forest resources of the Coastal Belt and with those of the interior of the province. The coast region has 229,765 million b.f. of standing timber, according to the estimate of the report, while the interior forest lands have 136,535 million b.f. The Coastal Belt has 63,400 million feet of Douglas fir and 59,949 million feet of western red cedar, while the interior has only 12,573 million feet of Douglas fir and 18,019 million feet of red cedar. On the other hand, the interior has 58,899 million feet of all species of spruce, while the coast has only 14,165 million feet of these desirable species.

A list of 22 species of coniferous trees of which only six are not commercial

species, and 26 deciduous trees of which only one, the black cottonwood, is a commercial species, is given as a list of the tree flora of British Columbia. Full descriptions of each species are given. In the description of Douglas fir, it is stated that there are about 76,000 million feet of this splendid timber standing in the province.

DOUGLAS FIR LARGEST TREE.

"With the exception of the giant sequoias and redwoods of California, the Douglas fir is the largest tree on the Pacific coast," says this account. "It ordinarily attains a height of from 175 to 200 feet, and a diameter of from 3 to 6 feet. Not infrequently, trees up to 250 feet in height and from 6 to 9 feet in diameter are seen. In the virgin forests on the coast, where fir predominates, the stands usually run 20,000 b.f. to 50,000 b.f. per acre, though frequently, on the better sites, the yield exceeds 100,000 b.f. per acre, one instance being recorded where 5,000,000 board feet were cut from 10 acres. Single mature trees usually contain from 2,000 to 5,000 b.f., but sometimes exceed 10,000 b.f. In the mountains the fir stands usually run from 5,000 to 15,000, though in some of the more moist valleys stands are found almost equal to those on the coast. In the interior dry belt the individual fir trees usually contain from 500 to 2,000 b.f."

"Douglas fir is perhaps the healthiest tree in British Columbia. It does not suffer from insect pests or fungus disease to nearly the same extent as the hemlock or cedar."

The report devotes chapters to Forest Administration on Provincial Lands, Forest Administration on Dominion Lands, Forest Policy, Forest Exploitation, and Insect Injuries to Forests in British Columbia.

FORESTS' ANNUAL REVENUE.

Out of an average annual revenue from the forests of over \$2,000,000, British Columbia spends approximately \$400,000 for their protection and administration, according to the report. The province contains nearly 26 per cent of the total standing timber of the Pacific Northwest region, but of the total cut of 8,877 million feet of lumber cut in the Pacific Northwest in 1913, only 1,157 million feet, or 13 per cent, was cut in British Columbia. Of the cut in the province, approximately two-thirds is from the coast and the remaining third from the interior.

"British Columbia can increase her cut five-fold without endangering her forest capital," says the report. From reliable data the report assumes that under reasonably effective protection from fire, five million board feet is the average annual increment for the British Columbia forests, and consequently

this amount could be cut yearly without drawing on the present forest capital.

It is pointed out that the saw mills of British Columbia were estimated in 1914 to have an annual capacity of 2,555 million board feet which is more than double the amount of the actual cut. Of the total cut of the province, not more than 15 per cent is used at home, leaving 85 per cent to be disposed of outside the province.

Forest production, primary and subsidiary contributed, in 1913, nearly \$34,000,000 of the total production of the industries of the province.

MARKETS FOR PRODUCTS.

The report gives considerable space to a discussion of the markets for British Columbia timber, which are divided into home, rail and water markets. Approximately 75 per cent of the 1913 lumber cut of the province was shipped out of British Columbia by rail. Of these shipments the prairie markets absorbed the most, but small amounts reached eastern Canada, and some went to the United States. The reports show that British Columbia does not get her share of the present export trade of lumber from the Pacific Northwest to seaboard markets. Of the 1,846 million feet absorbed by Pacific seaboard markets in 1913, British Columbia furnished only about 1.5 per cent. To Atlantic seaboard markets, British Columbia shipped in 1913 25,640,000 feet board measure, while from United States ports were shipped 50,380,000 million feet to these markets.

The report is profusely illustrated by half-tone reproductions of photographs and contains twenty-one maps. It deals thoroughly and comprehensively with every aspect of its subject. Three years were spent by the authors in compiling the data necessary for such a report, which covers about one half of the saw material in the Dominion.

Tenders Asked For.

Sealed tenders addressed to the undersigned, and endorsed "Tender for Alterations and Additions to P.O. Fittings, Regina, Sask.," will be received until 12 o'clock noon, Thursday, May 22, 1919, for alterations and additions to fittings in Post Office Building and in Old Royal Bank Building, Regina, Sask.

Plans and specification can be seen and forms of tender obtained at the office of the Chief Architect, Department of Public Works, Ottawa, the Clerk of Works, Regina, Sask., and of the Resident Architect, 802 Lindsay Building, Winnipeg, Man.

Tenders will not be considered unless made on the forms supplied by the Department and in accordance with the conditions set forth therein.

Each tender must be accompanied by an accepted cheque on a chartered bank payable to the order of the Minister of Public Works, equal to 10 p.c. of the amount of the tender. War Loan Bonds of the Dominion will also be accepted as security, or war bonds and cheques if required to make up an odd amount.

R. C. DESROCHERS,
Secretary.

Department of Public Works,
Ottawa, May 1, 1919.

First Land Payment.

The first payment on a land loan, it is stated by the Soldier Settlement Board, has been made by John M. McDonald of Steep Creek, Prince Albert, Sask., and is a month in advance of the due date. On the 8th May, 1918, Mr. John M. McDonald secured a loan of \$800 on his quarter section. The money was required for the purchase of a team of horses, wagon, plough, harrow and harness. Although the interest was not payable until the 1st of June, Mr. McDonald forwarded a cheque for \$64.19 as first payment. This is the first amount received by the Board in payment on any loan.

British Born Males.

The report of the Canada Registration Board shows that there are in the Dominion 2,028,335 British-born males, free from apparent physical disability, between the ages of 16 and 45.

STAND OF TIMBER IN B. C. PROVINCE.

The remaining stand of timber in the province is estimated to be as follows:—

Species.	Total.	
	Million b.f.	Per cent.
Western red cedar.....	77,968	22.2
Douglas Fir.....	75,973	21.2
Spruce (all species).....	73,064	20.8
Western Hemlock.....	64,112	18.3
White fir (balsam).....	32,953	9.4
Ledgepole pine.....	11,861	3.4
Western yellow pine.....	4,208	1.2
Yellow cypress.....	4,056	1.1
Western larch.....	3,152	.9
Western white pine.....	2,700	.8
Cottonwood.....	788	.2
Total saw material.....	350,835	
Piling, poles, pulpwood, etc.....	15,465	
Total forest resources.....	366,300	