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CANADA  
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DOMINION BUREAU OF STATISTICS  
FOREST PRODUCTS BRANCH

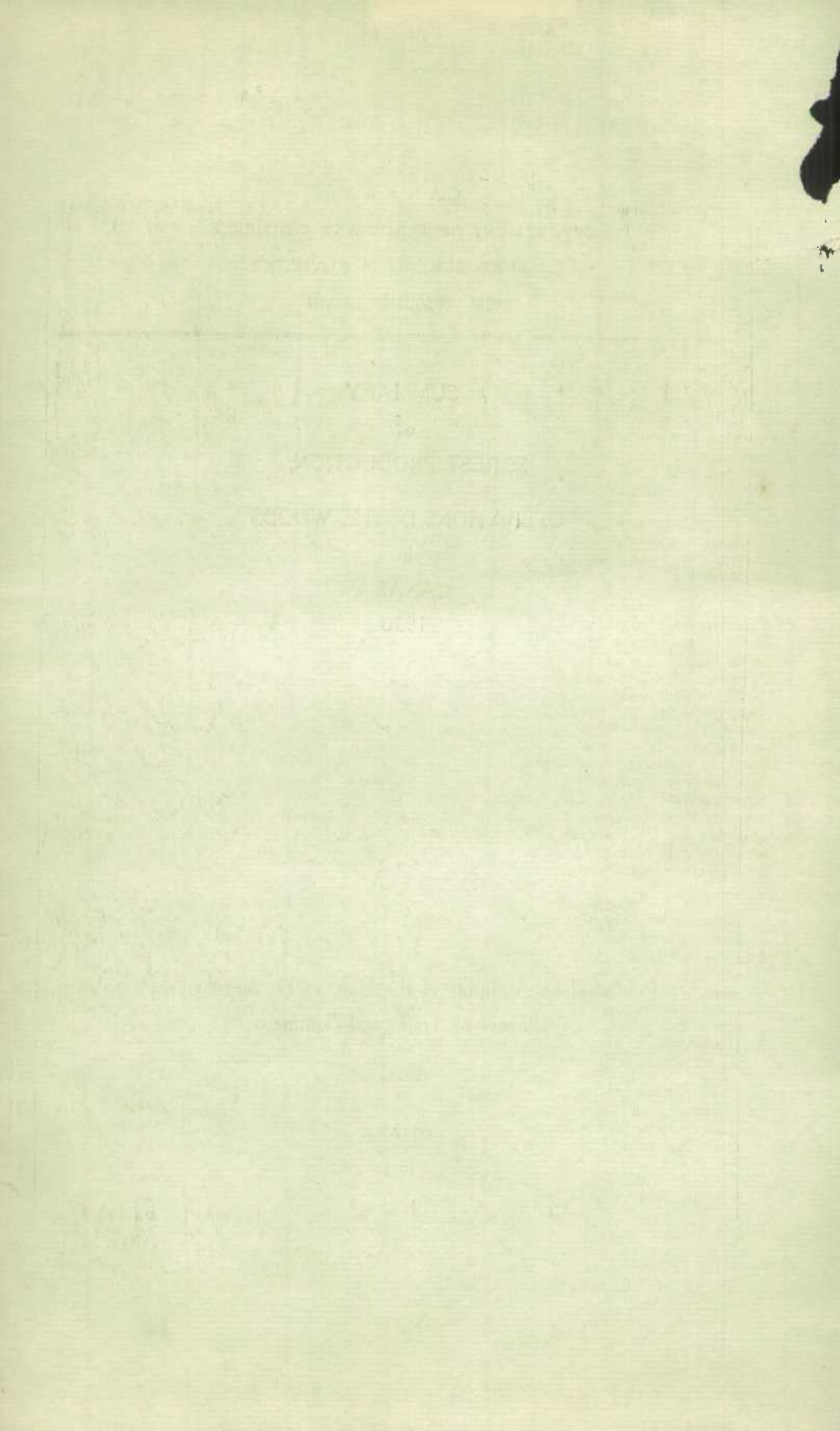
SUMMARY  
of  
FOREST PRODUCTION,  
OPERATIONS IN THE WOODS  
in  
CANADA  
1930



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FOREST PRODUCTS BRANCH

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SUMMARY OF FOREST PRODUCTION, 1930.

Ottawa, April, 1932. - An estimate of the total forest production of Canada for 1930 has just been completed by the Forest Products Branch of the Dominion Bureau of Statistics. The estimate includes all the products of operations in the woods, the unmanufactured materials cut in Canadian forests during the year.

An estimate has also been made of the extent to which our forests are being depleted annually in the process of exploiting these materials. For this purpose converting factors based on actual measurements have been used. Each of these factors represents, in cubic feet, the quantity of standing timber that must be cut in the forest in order to produce one unit of the material in question, based on the total cubic content of the tree. By the use of these factors it has been estimated that our total forest production in 1930 involved the cutting of 3,056,930,373 cubic feet of standing timber. This constitutes only the annual depletion for use and to it must be added the volume of material annually destroyed by fire, which exceeds 346,000,000 cubic feet of merchantable timber and the young growth on 1,300,000 acres. Insects and fungi destroy annually at least 700,000,000 cubic feet so that the annual drain on our forest resources is considerably more than 4,102,000,000 cubic feet.

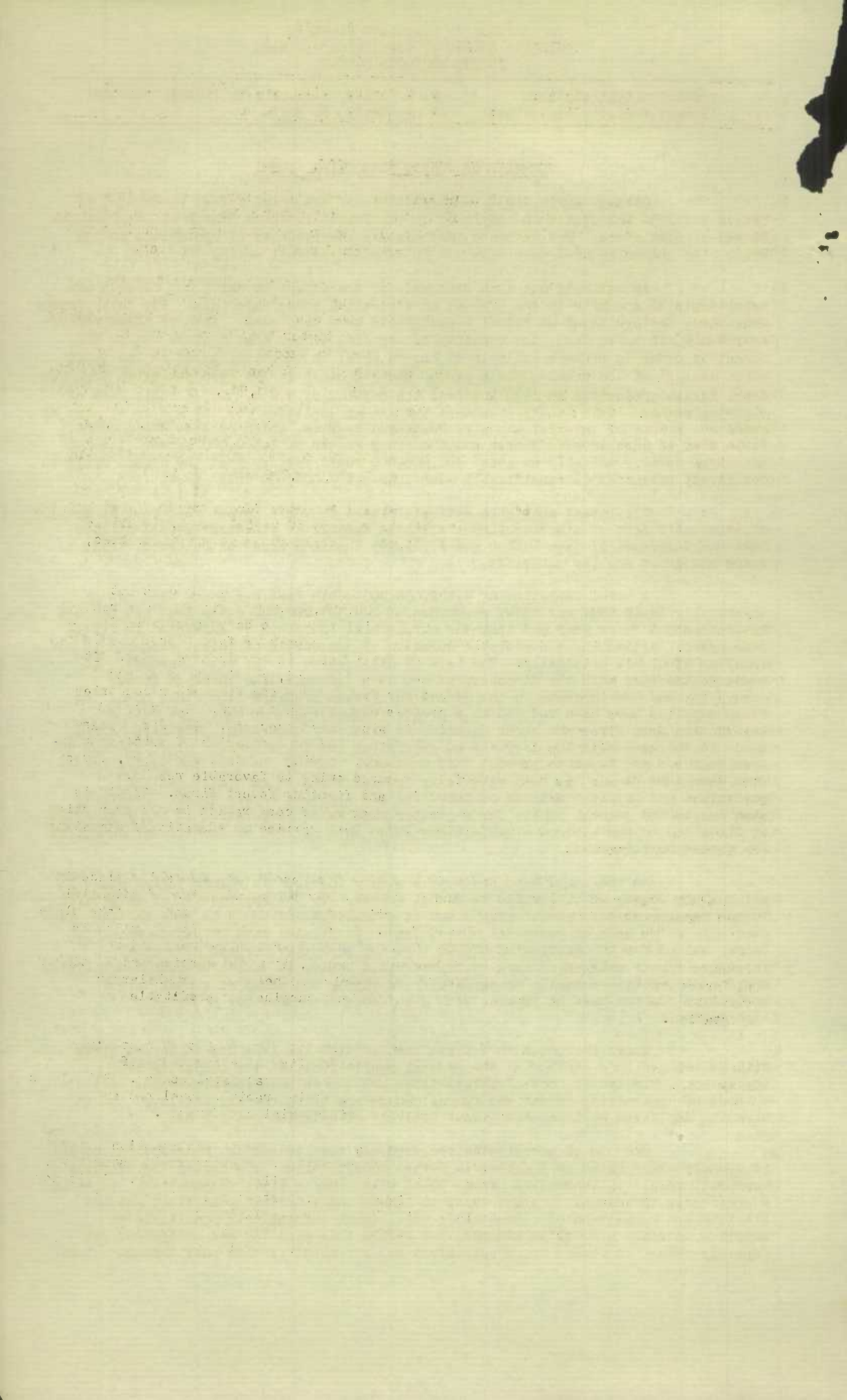
The latest available estimate places Canada's forest resources at 224,304 million cubic feet of standing timber which is capable of yielding 424,637 million feet board measure of sawn lumber and 1,121,993 thousand cords of pulpwood, ties, poles and other smaller materials.

A total depletion of 4,102,000,000 cubic feet per annum does not necessarily imply that our total resources of 224,304,000,000 cubic feet are reduced by that amount every year and that the supply will therefore be exhausted in fifty-four years. Estimating the probable duration of our supply of forest products is not a matter of simple arithmetic. The rate of utilization is far from constant. It tends to increase with the discovery of new uses for wood, the increase in our population and the increase in the demand for forest products from other countries whose supplies have been reduced to a greater extent than our own. The rate of destruction from fires and other agencies is also very uncertain. The fire hazard tends to increase with the increase of population and the extension of settlement unless measures are taken to prevent this tendency. During the last few years, forest fire damage in Canada has been materially reduced owing to favorable weather conditions and improved methods of detecting and fighting forest fires. Credit is also due to the general public for a greater measure of cooperation in the prevention of fires and to the various organizations which have carried on educational campaigns for forest conservation.

On the other hand there is a steady increase in volume taking place in all healthy stands of timber due to annual growth. By the application of scientific forest management this annual growth can be stimulated and could be made to take place over our entire area of potential forest land. If all the land in Canada which is better suited for the growing of timber than for any other purpose were under intensive forest management on a sustained yield basis, it would furnish enough timber and forest products annually in perpetuity to supply the needs of a much larger population than we have at present with a sufficient surplus for profitable exportation.

There is reason to believe that in time the loss due to forest fires will be reduced to a minimum as the general public realizes the necessity of precaution. Ninety per cent of forest fires are due to human carelessness. Scientific methods of controlling insect and fungus damage are being rapidly developed and in time the depletion will consist almost entirely of material cut for use.

The use of substitutes for wood may tend to reduce consumption but this is usually exaggerated as a factor in forest conservation. The increasing scarcity of wood will result in increasing prices which will tend to limit consumption. It is now a profitable investment to plant trees in Canada under certain conditions and the planting and management of forest lands will become increasingly profitable as supplies decrease and prices advance, but before this planting and management can possibly result in forest crops sufficient for our needs we will pass through a period



## SUMMARY OF FOREST PRODUCTION, 1930.

of lean years whose duration and intensity will depend entirely on how soon and how efficiently we apply scientific management to our existing forests.

As far as the value of forest products is concerned logs and bolts headed the list in 1930 with over seventy-five million dollars. These logs and bolts also head the list, as far as value is concerned, in the province of British Columbia. Pulpwood comes second on the list for the Dominion with a total value exceeding sixty-seven million and is the most valuable item of forest production in the provinces of Nova Scotia, New Brunswick, Quebec and Ontario. Firewood, with a total of over forty-three million comes third on the list for the Dominion as a whole but heads the list in Prince Edward Island, Manitoba, Saskatchewan and Alberta. Hewn railway ties with over five million; poles with over six million and square timber with almost three million are among the more important of the other items. The total estimated value of all these forest products is \$206,853,494, a decrease of 5.8 per cent over the estimated value for 1929.

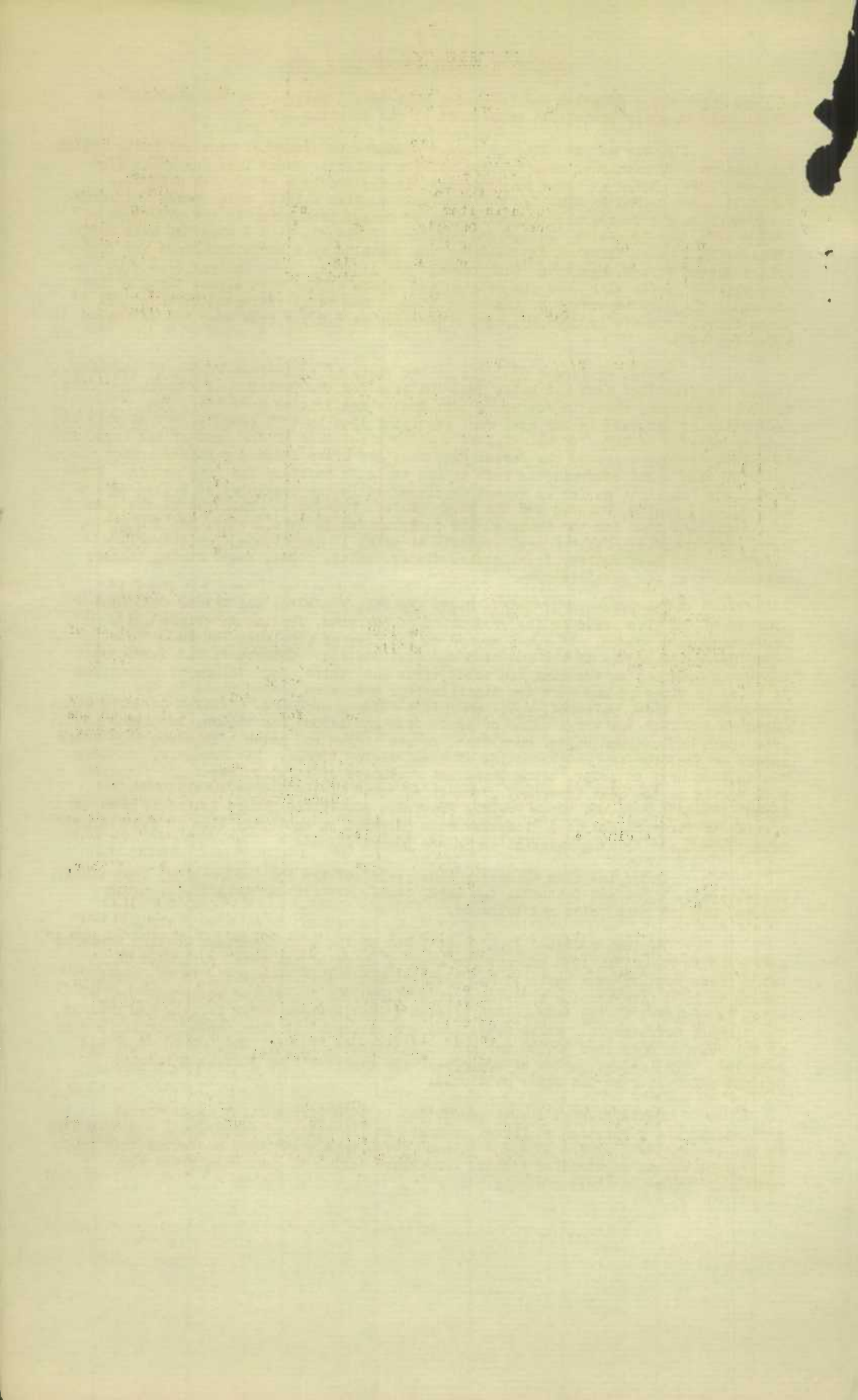
Comparing forest products on the basis of equivalent volume of standing timber, we find that logs and bolts head the list for the Dominion as a whole and form the most important items in New Brunswick, Quebec and British Columbia. The production of firewood is the next most important item in this respect, but as this is made up chiefly of inferior material of smaller sizes than in the case of saw logs, it is a less serious drain on our forest resources and often forms a valuable outlet for material that might otherwise be left in the woods to increase the fire menace. Firewood heads the lists as far as volume is concerned in the provinces of Prince Edward Island, Nova Scotia, Ontario and the three Prairie Provinces. Pulpwood is the next most important item for the Dominion and comes second in Nova Scotia, New Brunswick, Quebec and Ontario. Other forest products in order of importance from the volume standpoint are hewn railway ties, square timber, posts, poles, round mining timber, rails and wood for distillation.

The province of Quebec heads the list for value and volume of forest production and also leads in the production of pulpwood, fencing materials and miscellaneous products. It comes second on the list of provinces for the production of logs, firewood, square timber and wood for distillation. Ontario is the second most important province on the list for total value and third for volume of production. It leads in firewood and wood for distillation, and takes second place in the production of ties, pulpwood, poles and miscellaneous products. British Columbia comes third on the list for total value of production and second for volume, but leads in the production of logs and bolts, hewn ties, square timber and poles. This province comes second on the list in the production of round mining timber. New Brunswick and Nova Scotia come next in order, being important producers of logs, pulpwood and firewood. Nova Scotia is the most important producer of round mining timber in the Dominion. Forest production in the three Prairie Provinces and Prince Edward Island is made up chiefly of firewood and logs together with pulpwood in Manitoba, ties in Alberta and Saskatchewan and fencing material in Prince Edward Island.

Under the item "Miscellaneous products" are included piling, boom timber, masts, spars, knees and futtocks, tan bark, stave, shingle and lath bolts, match blocks, hop and hoop poles and lathwood.

Reports received from about 1,250 of the more important logging concerns operating in Canada in 1930 account for about a third of the total estimated cut. Using these reports as a basis it has been estimated that operations in the woods in Canada in 1930 involved the investment of \$246,000,000 in logging equipment most of which is employed in the industry in British Columbia where power logging has reached its highest development. These operations are estimated to give employment for a part of the year to more than 90,000 men and to distribute over \$67,000,000 in wages and salaries. The largest number of employees were reported from British Columbia, Ontario and Quebec in the order mentioned.

Table 1 shows forest production in 1930 giving first under "Total production" the quantities of forest products in the units of measurement commonly used in the industry and in the adjacent column these same quantities converted into their equivalent volume in standing timber. The third column in each case gives the estimated values of these products.



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SUMMARY OF FOREST PRODUCTION, 1930.

The next three columns under "Home consumption" include similar details for material which was used in Canada in the form in which it was taken from the woods or imported, together with material subjected to some further manufacturing process in Canada before being sold or exported. The third section of the table under "Exportation" shows the details in connection with the exports from Canada of raw or unmanufactured forest products for use or further manufacture in other countries. The final portion of the table gives the details of our imports of raw forest products which are used in Canada in the form in which they are imported or are further manufactured in some Canadian industry.

Out of a total of over 3,056 million cubic feet of standing timber cut in Canada in 1930 about 92.2 per cent was retained in the country for immediate use or as raw material for some Canadian industry, and 7.8 per cent was exported in a more or less unmanufactured form.

Manufactures of commodities whose chief component material is wood or paper depend on the products of the forest as their principal raw material. This group of wood and paper using industries in Canada ranks first among similar groups of industries in capital investment, number of employees, wages and salaries paid and net value of products. In gross value of production they are exceeded only by the manufacturers of vegetable products.

In 1930 the total value of capital invested in the wood and paper group of industries was \$1,221,357,252. The employees numbered 156,724 and were paid \$174,406,889 in wages and salaries. The net value of production or value added by manufacture was \$368,350,618 and the gross value \$636,599,911.

There are a number of other industries in which wood and paper are important raw materials although they are not the principal component materials used and still others in which wood and paper are used indirectly in connection with the manufacture of articles which do not contain wood or paper as a component part. Practically no form of industrial activity is entirely independent of the use of forest products, directly or indirectly.

The logs and bolts were converted into almost four billion feet board measure of sawn lumber and into other sawmill products with a total value added by manufacture of over forty-eight million dollars. Less than five per cent of the saw-logs cut in Canada in 1930 were exported unmanufactured.

Of the sawn lumber manufactured about 37 per cent was exported but a large part of this was planed or matched after leaving the sawmill and considerable value added to it in this way before being exported. The remainder of the lumber sawn was used in the rough for structural work in Canada or went into Canadian wood-using industries as the raw material in the manufacture of sash, doors and planing mill products, furniture, vehicles, boxes, etc.

Less than a quarter of the pulpwood cut was exported before being manufactured into pulp and eighty per cent of this exported material was rossed or barked pulpwood whose value has been increased thereby to the extent of two dollars or more a cord. Seventy-seven per cent of our total cut of pulpwood was used as the principal raw material in the pulp and paper industry, the most important of all the manufacturing industries in Canada. In pulp-making, the first stage in this industry, the value added to the raw pulpwood by manufacture amounted to over forty-eight million dollars in 1930. Twenty-one per cent of this pulp was exported and the remainder was made into paper in Canada with a value added in this stage of the process of eighty-five million dollars. The value added by manufacture in the pulp and paper industry as a whole was over a hundred and thirty-three million dollars. The square timber made in Canada was practically all exported and the wood used for distillation was all consumed in Canada.

The firewood, hewn ties, poles, round mining timber, posts and rails were largely used locally and when exported they are used in the form in which they leave the woods and would not have received any further manufacturing if they had been retained in Canada.

The economic loss in Canada involved in the exportation of unmanufactured or incompletely manufactured forest products for further manufacture in other countries is a serious matter but the loss was relatively small in comparison with our





SUMMARY OF FOREST PRODUCTION, 1930.

total forest production in 1930. The loss was most serious in connection with the exportation of the approximate equivalent of 31,000,000 cubic feet of rough millwood, 51,000,000 cubic feet of saw-logs and 34,000,000 cubic feet of square timber, making a total of 116,000,000 cubic feet of standing timber or about 3.8 per cent of the cut in 1930. The loss involved in this connection is partly offset by the importation into Canada of similar unmanufactured products for use as raw materials in Canadian mills.

A total of 2,817,820,535 cubic feet of home grown and imported forest products valued at \$185,080,891 were consumed in Canada in 1930 including wood consumed in the form in which it was taken from the woods and wood used as raw material in Canadian industry. This material forms over ninety-two per cent of our total cut and is tending to increase while the proportion of material exported in the raw or incompletely manufactured state is decreasing annually. Of the total quantity used in Canada only one per cent is imported.



ANNUAL SUMMARY OF FOREST PRODUCTION  
OPERATIONS IN THE WOODS

Table 1. - Forest Production, Home Consumption, Exports and Imports, 1930.

Products	Unit of Measure Used	Convert- ing Factor	TOTAL PRODUCTION			HOME CONSUMPTION		
			Quantity reported or estimated	Equivalent volume in standing timber	Total Value	Quantity reported or estimated	Equivalent volume in standing timber	Total Value
				cu. ft.	\$		cu. ft.	\$
Total .....	-	-	-	3,056,930,373	206,853,494	-	2,817,820,535	185,060,891
Logs and bolts .....	M ft. b.m.	219	5,379,492	1,178,108,748	75,563,041	5,194,629	1,137,623,751	73,475,656
Pulpwood .....	Cords	117	5,977,183	699,330,411	67,529,612	4,741,349	554,737,833	54,788,730
Firewood .....	Cords	95	10,148,960	964,151,200	43,786,064	10,127,763	962,137,485	43,604,951
Hewn ties .....	Number	12	7,417,629	89,011,548	5,038,899	7,139,841	85,678,092	4,850,193
Square timber .....	M ft. b.m.	219	153,567	33,631,173	2,945,748	647	141,693	26,707
Poles .....	Number	13	1,258,437	16,359,681	6,733,259	451,817	5,873,621	3,441,573
Round mining timber .....	Cubic feet	1.3	5,301,458	6,891,895	885,343	5,301,458	6,891,895	885,343
Posts .....	Number	2	16,185,930	32,371,860	1,585,985	15,551,873	31,103,746	1,523,104
Wood for distillation .....	Cords	123	38,139	4,691,097	335,330	38,139	4,691,097	335,330
Fence rails .....	Number	2	5,753,810	11,507,620	624,968	5,753,810	11,507,620	624,968
Miscellaneous products .....	Cords	117	178,420	20,875,140	1,825,245	149,006	17,433,702	1,524,336



ANNUAL SUMMARY OF FOREST PRODUCTION  
OPERATIONS IN THE WOODS

Table 1. - Forest Production, Home Consumption, Exports and Imports, 1930 - Continued.

Products	Unif of Measure Used	Convert- ing Factor	EXPORTATION			IMPORTATION		
			Quantity reported or estimated	Equivalent volume in standing timber	Total Value	Quantity reported or estimated	Equivalent volume in standing timber	Total Value
				cu. ft.	\$		cu. ft.	\$
Total .....	-	-	-	268,053,998	24,167,063	-	28,944,160	2,394,460
Logs and bolts .....	M ft. b.m.	219	232,876	50,999,844	2,798,643	48,013	10,514,847	711,258
Pulpwood .....	Cords	117	1,330,466	155,664,522	13,611,617	94,632	11,071,944	870,735
Firewood .....	Cords	95	28,745	2,730,775	204,832	7,548	717,060	23,719
Hewn ties .....	Number	12	502,879	6,034,548	341,613	225,091	2,701,092	152,907
Square timber .....	M ft. b.m.	219	153,567	33,631,173	2,945,748	647	141,693	26,707
Poles .....	Number	13	888,777	11,554,101	3,663,997	82,157	1,068,041	372,311
Round mining timber .....	cubic feet	1.3	-	-	-	-	-	-
Posts .....	Number	2	695,126	1,390,252	71,732	61,069	122,138	8,851
Wood for distillation .....	Cords	123	-	-	-	-	-	-
Fence rails .....	Number	2	-	-	-	-	-	-
Miscellaneous products .....	Cords	117	51,699	6,048,783	528,881	22,285	2,607,345	227,972



ANNUAL SUMMARY OF FOREST PRODUCTION  
OPERATIONS IN THE WOODS

Table 2. - Forest Production, by Provinces, 1929 and 1930.

Provinces	Equivalent volume in standing timber		Total Value	
	1929	1930	1929	1930
	cubic feet	cubic feet	\$	\$
CANADA .....	3,090,614,647	3,056,930,373	219,570,129	206,853,494
Prince Edward Island ...	10,747,881	11,001,310	529,666	533,931
Nova Scotia .....	120,246,169	128,377,416	7,716,067	8,589,205
New Brunswick .....	195,588,102	179,844,960	15,788,394	13,991,127
Quebec .....	810,931,266	1,000,825,308	65,537,957	73,493,851
Ontario .....	776,378,800	719,125,633	60,999,431	53,381,944
Manitoba .....	92,235,022	94,913,732	4,964,348	5,015,898
Saskatchewan .....	102,912,066	109,262,403	4,878,995	5,100,417
Alberta .....	142,474,289	116,647,253	6,244,173	5,896,861
British Columbia .....	839,106,052	696,932,358	52,911,098	40,850,260

Table 3. - Value of Forest Production, by Kinds, 1929 and 1930.

Products	1926	1927	1928	1929	1930
	\$	\$	\$	\$	\$
TOTAL ....	204,436,328	204,939,750	212,950,799	219,570,129	206,853,494
Logs and bolts .....	75,791,932	74,270,067	76,431,481	79,278,543	75,563,041
Pulpwood .....	68,100,303	70,284,895	74,848,077	76,120,063	67,529,612
Firewood .....	40,032,804	40,582,774	41,164,270	41,764,507	43,786,064
Hewn railway ties ..	6,792,087	6,242,865	5,871,724	5,730,423	5,038,899
Square timber .....	2,643,543	2,865,906	3,772,137	4,179,077	2,945,748
Poles .....	3,828,193	3,948,723	4,934,371	6,677,559	6,733,259
Round mining timber.	1,566,938	965,185	998,146	1,028,126	885,343
Fence posts .....	1,318,291	1,281,633	1,506,050	1,674,489	1,585,985
Wood for distillation	462,818	482,277	476,726	455,957	335,330
Fence rails .....	440,097	431,057	463,469	477,569	624,968
Miscellaneous products .....	3,459,322	3,584,368	2,484,348	2,183,816	1,825,245

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