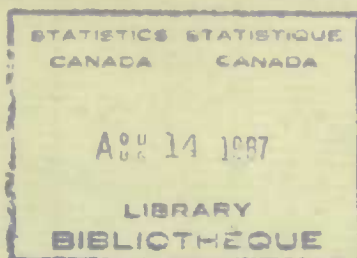


25-201

C. 2



C A N A D A
DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS
FOREST PRODUCTS BRANCH

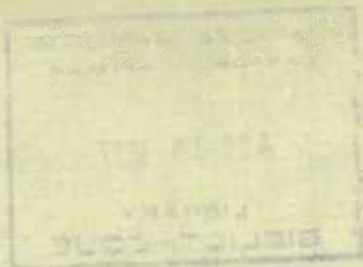
SUMMARY
of
FOREST PRODUCTION,
OPERATIONS IN THE WOODS
in
CANADA
1928



Published by Authority of the Hon. James Malcolm, M.P.,
Minister of Trade and Commerce

OTTAWA

1930



DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS - CANADA
FOREST PRODUCTS BRANCH

Dominion Statistician: R.H. Coats, B.A., F.S.S., (Hon.), F.R.S.C.
Forest Products Statistics: R.G. Lewis, B. Sc.F.

SUMMARY OF FOREST PRODUCTION, 1928

Ottawa, April 19, 1930.- An estimate of the total forest production of Canada for 1928 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 contents of the tree. By the use of these factors it has been estimated that our total forest production in 1928 involved the cutting of 2,988,038,430 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 900,000,000 cubic feet of merchantable timber and the young growth on 1,300,000 acres. Insects and fungi destroy annually at least 800,000,000 cubic feet so that the annual drain on our forest resources is considerably more than 4,788,000,000 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 4,778,000,000 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 forty-seven 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 but tends to increase with the increase of population and the extension of settlement unless measures are taken to prevent this tendency.

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 practically eliminated once the general public realizes the necessity of precaution, as 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 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 1928 with over seventy-six million dollars. These logs and bolts also head the lists, as far as value is concerned, in the provinces of British Columbia, and New Brunswick. Pulpwood comes second on the list for the Dominion with a total value exceeding seventy-four million and is the most valuable item of forest production in the provinces of Ontario and Quebec. Firewood, with a total of over forty-one million comes

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY

REPORT OF THE
COMMISSIONERS OF THE
LAND OFFICE

IN RESPONSE TO
RESOLUTION NO. 100
PASSED BY THE BOARD OF
SUPERVISORS AT A
MEETING HELD AT
THE COUNTY OFFICE
ON THE 10TH DAY OF
MAY 1900

AND
A REPORT OF THE
COMMISSIONERS OF THE
LAND OFFICE

IN RESPONSE TO
RESOLUTION NO. 100
PASSED BY THE BOARD OF
SUPERVISORS AT A
MEETING HELD AT
THE COUNTY OFFICE
ON THE 10TH DAY OF
MAY 1900

AND
A REPORT OF THE
COMMISSIONERS OF THE
LAND OFFICE

IN RESPONSE TO
RESOLUTION NO. 100
PASSED BY THE BOARD OF
SUPERVISORS AT A
MEETING HELD AT
THE COUNTY OFFICE
ON THE 10TH DAY OF
MAY 1900

AND
A REPORT OF THE
COMMISSIONERS OF THE
LAND OFFICE

IN RESPONSE TO
RESOLUTION NO. 100
PASSED BY THE BOARD OF
SUPERVISORS AT A
MEETING HELD AT
THE COUNTY OFFICE
ON THE 10TH DAY OF
MAY 1900

SUMMARY OF FOREST PRODUCTION, 1928.

third on the list for the Dominion as a whole but heads the list in Manitoba, Saskatchewan, Nova Scotia and Prince Edward Island. Hewn railway ties with over five million; poles with over four million and square timber with over three million are among the more important of the other items. The total estimated value of all these primary forest products is \$212,950,799, an increase of 3.9 per cent over the estimated value for 1927.

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 British Columbia and New Brunswick. 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 Ontario, Nova Scotia, Prince Edward Island and the three Prairie Provinces. Pulpwood is the next most important item for the Dominion and comes first in Quebec and second in Ontario and New Brunswick. Other forest products in order of importance from the volume standpoint are hewn railway ties, logs for export, square timber, posts, poles, rails, round mining timber and wood for distillation.

The province of Quebec heads the list for forest production, both for value of material produced and for its equivalent in standing timber. It heads the lists in the production and use of pulpwood and also in the production of firewood and fencing materials. It comes second on the list of provinces for the production of square timber and wood for distillation. Ontario is the second most important province on the list for total value of production and third for volume of production. It leads in pulpwood for export, wood for distillation and miscellaneous products, and takes second place in the production of logs and bolts, pulpwood for domestic use, firewood and poles. 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, logs and fencing materials together with pulpwood and ties in Manitoba and ties and round mining timber in Alberta.

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 1,468 of the more important logging concerns operating in Canada in 1928 account for over 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 1928 involved the investment of \$188,000,000 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 103,000 men and to distribute over \$80,000,000 in wages and salaries. The largest number of employees were reported from Quebec, Ontario and British Columbia in the order mentioned.

Table 1 shows forest production in 1928 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.

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 2,988 million cubic feet of standing timber cut in Canada in 1928 about 88.8 per cent was retained in the country for immediate use or as raw material for some Canadian industry, and 11.2 per cent was exported in a more or less unmanufactured form.

SUMMARY OF FOREST PRODUCTION, 1928.

Manufacturers 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 1928 the total value of capital invested in the wood and paper group of industries was \$1,158,651,534. The employees numbered 158,005 and were paid \$179,244,698 in wages and salaries. The net value of production or value added by manufacture was \$389,386,952 and the gross value \$682,546,865.

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 more than four billion feet board measure of sawn lumber and other sawmill products with a value added by manufacture of over fifty-eight million dollars. Less than seven per cent of the saw-logs cut in Canada in 1928 were exported unmanufactured.

Of the sawn lumber manufactured about 48 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.

About a quarter of the pulpwood cut was exported before being manufactured into pulp but three quarters of this exported material was rossed or barked pulpwood whose value had been increased thereby to the extent of two dollars or more a cord. Three quarters 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 fifty million dollars in 1928. Twenty-four 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 over ninety-three million dollars. The value added by manufacture in the pulp and paper industry as a whole was about a hundred and forty-four 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 do not represent a great economic loss as 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 to 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 to our total forest production in 1928. The loss was most serious in connection with the exportation of the approximate equivalent to 50,000,000 cubic feet of rough pulpwood, 72,352,000 cubic feet of saw-logs and 38,889,000 cubic feet of square timber, making a total of 162,241,000 cubic feet of standing timber or about 5.4 per cent of the cut in 1928. 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 2,671,115,112 cubic feet of home grown and imported forest products valued at \$186,320,191 were consumed in Canada in 1928 including wood consumed in the form in which it was taken from the woods and wood used as raw material in Canadian industry. The proportion which this material forms of our total cut is tending to increase while the proportion of material exported in the raw or incompletely manufactured state is decreasing annually.

STATE OF NEW YORK

IN SENATE
January 15, 1914.

REPORT OF THE COMMISSIONERS OF THE LAND OFFICE
IN RESPONSE TO A RESOLUTION PASSED BY THE SENATE
ON JANUARY 14, 1913.

ALBANY: JAMES BRONKHORST COMPANY, PRINTERS.
1914.

THE COMMISSIONERS OF THE LAND OFFICE
HONORABLE SENATOR JOHN W. WALKER,
ALBANY, N. Y.

ALBANY, N. Y., JANUARY 15, 1914.

SIR:

I have the honor to acknowledge the receipt of your letter of the 14th inst. and in reply to inform you that the same has been forwarded to the proper authorities for their consideration.

I am, Sir, very respectfully,
Your obedient servant,
COMMISSIONER OF THE LAND OFFICE.

ANNUAL SUMMARY OF FOREST PRODUCTION

OPERATIONS IN THE WOODS

Table 1 - Production, home consumption, exports and imports, 1928.

| 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 |
| Total..... | - | - | - | 2,988,038,430 | 212,950,799 | - | 2,671,115,112 | 186,320,191 |
| Logs and bolts..... | M ft. b.m. | 219 | 5,053,221 | 1,106,655,399 | 76,431,481 | 4,755,244 | 1,041,398,436 | 72,525,692 |
| Pulpwood..... | Cords | 117 | 6,328,586 | 740,444,562 | 74,848,077 | 4,796,320 | 561,169,440 | 59,578,417 |
| Firewood..... | " | 95 | 9,541,267 | 906,420,365 | 41,164,270 | 9,522,665 | 904,653,175 | 41,049,752 |
| Hewn ties..... | Number | 12 | 8,253,575 | 99,042,900 | 5,871,724 | 8,083,873 | 97,006,476 | 5,815,725 |
| Square timber..... | M ft. b.m. | 219 | 177,579 | 38,889,801 | 3,772,137 | 1,035 | 226,665 | 77,286 |
| Poles..... | Number | 13 | 1,130,651 | 14,698,463 | 4,934,371 | 336,355 | 4,372,615 | 1,885,328 |
| Round mining timber.... | Cubic ft. | 1.3 | 5,634,590 | 7,324,967 | 998,146 | 5,634,590 | 7,324,967 | 998,146 |
| Posts..... | Number | 2 | 15,690,978 | 31,381,956 | 1,506,050 | 15,395,512 | 30,791,024 | 1,483,046 |
| Wood for distillation.. | Cords | 123 | 52,559 | 6,464,757 | 476,726 | 52,559 | 6,464,757 | 476,726 |
| Fence rails..... | Number | 2 | 5,421,327 | 10,842,654 | 463,469 | 5,421,327 | 10,842,654 | 463,469 |
| Miscellaneous products. | Cords | 117 | 219,038 | 25,872,606 | 2,484,348 | 167,108 | 6,864,903 | 1,966,604 |

Table 1 - Continued.

| Products | Unit of measure used | Converting 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 |
| Total..... | - | - | - | 334,786,643 | 28,523,841 | - | 17,863,330 | 1,893,233 |
| Logs and bolts..... | M ft. b.m. | 219 | 330,376 | 72,352,344 | 4,607,286 | 32,399 | 7,095,381 | 701,497 |
| Pulpwood..... | Cords | 117 | 1,532,266 | 179,275,122 | 15,269,660 | - | - | - |
| Firewood..... | " | 95 | 26,669 | 2,533,555 | 151,318 | 8,067 | 766,365 | 36,800 |
| Hewn ties..... | No. | 12 | 479,272 | 5,751,264 | 371,743 | 309,570 | 3,714,841 | 315,744 |
| Square timber..... | M ft. b.m. | 219 | 177,579 | 38,889,801 | 3,772,137 | 1,035 | 226,665 | 77,286 |
| Poles..... | No. | 13 | 825,497 | 10,731,461 | 3,339,585 | 31,201 | 405,613 | 290,542 |
| Round mining timber... | Cu. ft. | 1.3 | - | - | - | - | - | - |
| Posts..... | No. | 2 | 517,811 | 1,035,622 | 50,427 | 222,345 | 444,690 | 27,423 |
| Wood for distillation | Cords | 123 | - | - | - | - | - | - |
| Fence rails..... | No. | 2 | - | - | - | - | - | - |
| Miscellaneous products | Cords | 117 | 96,458 | 24,217,479 | 961,685 | 44,528 | 5,209,776 | 443,941 |

Where no figures appear there are no exports or imports reported or the quantities are small and are included under "miscellaneous products."

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

ANNUAL SUMMARY OF FOREST PRODUCTION 1927 and 1928

OPERATIONS IN THE WOODS

Table 2.- Forest production by provinces

| Provinces | Equivalent volume in standing timber | | Total value | |
|---------------------------|--------------------------------------|--------------------|-------------|-------------|
| | 1927 cubic feet | 1928 cubic feet | 1927 \$ | 1928 \$ |
| CANADA..... | 2,865,302,797 | 2,988,038,430 | 204,939,750 | 212,950,799 |
| Prince Edward Island..... | 16,103,043 | 16,158,953 | 738,732 | 729,746 |
| Nova Scotia..... | 120,818,695 | 117,933,752 | 8,671,472 | 8,169,748 |
| New Brunswick..... | 201,668,345 | 185,281,100 | 17,895,026 | 15,413,390 |
| Quebec..... | 856,232,833 | 876,900,762 | 65,707,873 | 67,991,437 |
| Ontario..... | 698,278,537 | 771,331,245 | 53,980,399 | 58,774,971 |
| Manitoba..... | 98,880,108 | 71,992,205 | 5,178,948 | 3,899,711 |
| Saskatchewan..... | 55,516,338 | 62,811,186 | 2,385,876 | 2,877,720 |
| Alberta..... | 83,448,615 | 90,639,513 | 3,960,466 | 4,494,145 |
| British Columbia..... | 734,356,283 | 794,989,714 | 46,420,958 | 50,599,931 |

Table 3.- Review of Total Value of Forest Production
by Products, 1923 to 1927.

| Products | 1924 | 1925 | 1926 | 1927 | 1928 |
|------------------------------|-------------|-------------|-------------|-------------|-------------|
| | \$ | \$ | \$ | \$ | \$ |
| Total..... | 213,146,710 | 209,276,561 | 204,436,328 | 204,939,750 | 212,950,799 |
| Logs and bolts..... | 87,996,990 | 76,633,034 | 75,791,932 | 74,270,067 | 76,431,481 |
| Pulpwood..... | 57,777,640 | 62,181,537 | 68,100,303 | 70,284,895 | 74,848,077 |
| Firewood..... | 39,336,771 | 39,515,657 | 40,032,804 | 40,582,774 | 41,164,270 |
| Hand saw railway ties X..... | 14,251,450 | 14,491,557 | 6,792,087 | 6,242,865 | 5,871,724 |
| Square timber..... | 3,317,225 | 2,643,543 | 2,643,543 | 2,865,906 | 3,772,137 |
| Poles..... | 3,621,415 | 3,802,036 | 3,828,193 | 3,948,723 | 4,934,371 |
| Round mining timber..... | 1,296,710 | 1,249,021 | 1,566,938 | 965,185 | 998,146 |
| Fence posts..... | 1,414,363 | 1,418,961 | 1,318,291 | 1,281,633 | 1,506,050 |
| Wood for distillation..... | 562,525 | 463,616 | 462,818 | 482,277 | 476,726 |
| Fence rails..... | 452,377 | 454,910 | 440,697 | 431,057 | 463,469 |
| Miscellaneous products | 3,119,244 | 6,422,689 | 3,459,322 | 3,584,368 | 2,484,348 |

X The figures for 1924 and 1925 include sawn ties which are included under "logs and bolts sawn" in the 1926, 1927 and 1928 estimates.

Table 3.- Review of Total Value of Forest Production
by Products, 1924 to 1928

| Products | 1924 | 1925 | 1926 | 1927 | 1928 |
|----------------------------|-------------|-------------|-------------|-------------|-------------|
| Total..... | 213,146,710 | 209,276,561 | 204,436,328 | 204,939,750 | 212,950,799 |
| Logs and bolts..... | 87,996,990 | 76,633,034 | 75,791,932 | 74,270,067 | 76,431,481 |
| Pulpwood..... | 57,777,640 | 62,181,537 | 68,100,303 | 70,284,895 | 74,848,077 |
| Firewood..... | 39,336,771 | 39,515,657 | 40,032,804 | 40,582,774 | 41,164,270 |
| X Hewn railway ties..... | 14,251,450 | 14,491,557 | 6,792,087 | 6,242,865 | 5,871,724 |
| Square timber..... | 3,317,225 | 2,643,543 | 2,643,543 | 2,865,906 | 3,772,137 |
| Poles..... | 3,621,415 | 3,802,036 | 3,828,193 | 3,948,723 | 4,934,371 |
| Round mining timber..... | 1,296,710 | 1,249,021 | 1,566,938 | 965,185 | 998,146 |
| Fence posts..... | 1,414,363 | 1,418,961 | 1,318,291 | 1,281,633 | 1,506,050 |
| Wood for distillation..... | 562,525 | 463,616 | 462,818 | 482,277 | 476,726 |
| Fence rails..... | 452,377 | 454,910 | 440,097 | 431,057 | 463,469 |
| Miscellaneous products | 3,119,244 | 6,422,689 | 3,459,322 | 3,584,368 | 2,484,348 |

X The figures for 1924 and 1925 include sawn ties which are included under "logs and bolts sawn" in the 1926, 1927 and 1928 estimates.

STATISTICS CANADA LIBRARY
BIBLIOTHÈQUE STATISTIQUE CANADA



1010780485