Reference Tables 1971

Canadian Pulp and Paper Association

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Notes to the Tables

These Reference Tables are published annually as a statistical review of the Canadian pulp and paper industry, its growth and development, its place in the Canadian economy, and its position in the great world industry of which it forms so significant a part.

For some products, the figures in the Tables differ somewhat from those in the monthly Statistical Bulletin, also published by the Canadian Pulp and Paper Association. One of the reasons is that Dominion Bureau of Statistics grade classifications are slightly different, in a few instances, from those of the Canadian Pulp and Paper Association. In addition, the monthly Statistical Bulletin does not include statistics for several companies which are not members of CPPA. These companies account for some two per cent of the total pulp and paper output in Canada.

All quantities in the Tables are in short tons of 2,000 pounds and, for wood pulp, are expressed on an air-dry basis.

For the preparation of these tables grateful acknowledgement is made to L. J. Pouliot, formerly chief of the Forestry Section of the Dominion Bureau of Statistics, Ottawa.

Copies of Reference Tables, within a reasonable number, are available from
Canadian
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Association,
2300 Sun Life Building,
Montreal 110, P.Q.

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I. The Pulp and Paper Industry in 1970

1

National significance	1970	1969
	$'000	$'000
Gross production of pulp and paper mills[1]	2,685,354[2]	2,771,276
Gross national product	84,568,000[3]	78,560,000
Capital expenditures of pulp and paper mills	469,300	325,700
Pulp and paper exports	2,063,395	2,014,069
Total domestic exports	16,458,183	14,503,638
Ratio of pulp and paper exports to total domestic exports	12.54%	13.89%
Pulp and paper exports to United States	1,436,227	1,502,043
Total domestic exports to United States	10,641,119	10,273,650
Ratio of pulp and paper exports to United States to total domestic exports to United States	13.50%	14.62%

1. Value of shipments of goods of own manufacture.
2. Canadian Pulp and Paper Association estimate.
3. Preliminary.

Source: Dominion Bureau of Statistics.

2

Shipments by products	1970	1970	1969	1969
	'000 Tons	%	'000 Tons	%
Wood pulp[1]	6,570	34.70	6,899	35.59
Chemical	*6,245*	*32.98*	*6,588*	*33.99*
Mechanical and other grades	*325*	*1.72*	*311*	*1.60*
Paper and board	12,365	65.30	12,486	64.41
Newsprint[2]	*8,712*	*46.01*	*8,863*	*45.72*
Paperboard	*1,727*	*9.12*	*1,744*	*9.00*
Building boards	*358*	*1.89*	*393*	*2.03*
Book and writing papers	*839*	*4.43*	*731*	*3.77*
Wrapping papers	*474*	*2.50*	*497*	*2.56*
Tissue and sanitary papers	*122*	*0.64*	*121*	*0.62*
Building papers	*113*	*0.60*	*117*	*0.60*
Special industrial papers and wet machine boards	*20*	*0.11*	*20*	*0.10*
Total[3]	**18,935**	**100.00**	**19,385**	**100.00**

1. Including shipments to subsidiary and affiliated companies.
2. Dominion Bureau of Statistics classification includes some grades not classed as newsprint by the Newsprint Division of the Canadian Pulp and Paper Association.
3. As much of the pulp shipped to Canadian customers and Canadian affiliated mills was utilized in the manufacture of paper and board, there is some duplication in this figure.

Source: 1969: Dominion Bureau of Statistics; 1970: Canadian Pulp and Paper Association estimates.

3

Shipments by areas	1970	1970	1969	1969
	'000 Tons	%	'000 Tons	%
Used in Canada	4,241[3]	22.40	4,480	23.11
Exported[2] to	14,694	77.60	14,905	76.89
United States	*9,982*	*52.71*	*10,753*	*55.47*
United Kingdom	*1,137*	*6.01*	*1,050*	*5.42*
Western Europe	*1,276*	*6.74*	*1,148*	*5.92*
South America	*443*	*2.34*	*396*	*2.04*
Japan	*628*	*3.32*	*668*	*3.45*
Australia and New Zealand	*275*	*1.45*	*247*	*1.27*
Central America and Antilles	*335*	*1.77*	*258*	*1.33*
All others	*618*	*3.26*	*385*	*1.99*
Total[1]	**18,935[3]**	**100.00**	**19,385**	**100.00**

1. As much of the pulp shipped to Canadian customers and Canadian affiliated mills was utilized in the manufacture of paper and board, there is some duplication in this figure.
2. Excluding paper products for which tonnage not available, valued at $4,565,000 in 1969 and $6,668,000 in 1970.
3. Canadian Pulp and Paper Association estimate.

Source: Dominion Bureau of Statistics.

4

Production by provinces	Wood pulp 1970[1]	Wood pulp 1969[1]	Basic paper and board 1970[1,2]	Basic paper and board 1969[2]
	'000 Tons	'000 Tons	'000 Tons	'000 Tons
Quebec	6,718	6,547	5,620	5,675
Ontario	3,886	3,961	3,152	3,182
British Columbia	4,478	4,879	1,904	1,922
Other Provinces	3,308	3,203	1,719	1,736
Total	**18,390**	**18,590**	**12,395**	**12,515**

1. Canadian Pulp and Paper Association estimate.
2. Excluding building board.

Source: Dominion Bureau of Statistics.

5

Production ratios	1970	1969
	%	%
Newsprint	87	89
Chemical pulps	87	89
Paperboard	88	97
Other papers	89	89

Note: These ratios represent actual production as a percentage of productive capacity, as estimated by the Canadian Pulp and Paper Association.

6

Employees	1970	1969
Mill, head office and ancillary units	75,169[1]	75,427
Woods, permanent and seasonal	81,227[2]	85,502[2]
Total	**156,396**	**160,929**

1. Dominion Bureau of Statistics estimate.
2. Woodlands Section, Canadian Pulp and Paper Association estimate.

7

Wages paid	1970	1969
	$'000	$'000
Mill, head office and ancillary units	633,896[1]	611,591
Woods	342,365[2]	332,588[2]
Total	**976,261**	**944,179**

1. Dominion Bureau of Statistics estimate.
2. Woodlands Section, Canadian Pulp and Paper Association estimate.

8

Pulpwood consumption by provinces	Roundwood 1970	Wood residue 1970	Roundwood 1969	Wood residue 1969
	'000 Cunits	'000 Cunits	'000 Cunits	'000 Cunits
Atlantic Provinces	3,169	410	2,956	398
Quebec	6,447	1,228	6,237	1,160
Ontario	3,901	557	3,960	536
Prairie Provinces	664	57	718	47
British Columbia	2,860	4,254	3,412	4,254
Total	**17,041**	**6,506**	**17,283**	**6,395**

Sources: 1969: Dominion Bureau of Statistics; 1970: Canadian Pulp and Paper Association estimates from DBS preliminary data.

9

Pulpwood consumption, by species	1970	1970	1969	1969
	'000 Cunits	%	'000 Cunits	%
Roundwood	17,041	72.4	17,283	73.0
Spruce and Balsam	*12,036*	*51.1*	*11,880*	*50.2*
Hemlock	*1,672*	*7.1*	*1,986*	*8.4*
Jack Pine	*1,561*	*6.7*	*1,584*	*6.7*
Other softwoods	*326*	*1.4*	*387*	*1.6*
Poplar, Aspen and Cottonwood	*595*	*2.5*	*612*	*2.6*
Other hardwoods	*851*	*3.6*	*834*	*3.5*
Wood residue	6,506	27.6	6,395	27.0
Total	**23,547**	**100.0**	**23,678**	**100.0**

Sources: 1969: Dominion Bureau of Statistics; 1970: Canadian Pulp and Paper Association estimates from DBS preliminary data.

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Mill locations 1970[1]	Pulp mills	Pulp & paper mills	Paper mills	Total
Newfoundland		2		2
Nova Scotia	4	1		5
New Brunswick	6	4	1	11
Quebec	7	34	15	56
Ontario	6	18	13	37
Manitoba		3		3
Saskatchewan	1	1		2
Alberta		2	1	3
British Columbia	13	6	2	21
Total	**37**	**71**	**32**	**140**

1. Preliminary.
Source: Dominion Bureau of Statistics.

11

Pulp, paper and paper products exports 1970	Total exports	Total exports	To U.S.A.	To U.S.A.	To United Kingdom	To United Kingdom	To other countries	To other countries
	'000 Tons	$'000	'000 Tons	$'000	'000 Tons	$'000	'000 Tons	$'000
Pulp	**5,582**	**785,228**	**3,316**	**485,453**	**377**	**49,540**	**1,889**	**250,235**
Dissolving and special alpha	333	63,869	214	41,961	17	3,206	102	18,702
Sulphate, paper grades	4,290	609,381	2,423	361,939	316	41,523	1,551	205,919
Bleached softwood	*3,034*	*445,236*	*1,768*	*273,807*	*178*	*23,597*	*1,088*	*147,832*
Bleached hardwood	*379*	*54,941*	*271*	*38,691*	*50*	*7,572*	*58*	*8,678*
Semi-bleached	*515*	*67,509*	*148*	*21,602*	*63*	*7,707*	*304*	*38,200*
Unbleached	*361*	*41,695*	*235*	*27,839*	*25*	*2,647*	*101*	*11,209*
Sulphite, paper grades	664	94,206	498	70,425	27	3,841	139	19,940
Bleached	*485*	*71,780*	*397*	*57,572*	*16*	*2,253*	*72*	*11,955*
Unbleached, strong	*158*	*19,347*	*83*	*10,332*	*11*	*1,456*	*64*	*7,559*
Unbleached, news grade	*22*	*3,079*	*18*	*2,521*	*1*	*132*	*3*	*426*
Mechanical	277	17,332	163	10,688	17	970	97	5,674
Bleached	*13*	*732*	*3*	*193*	*4*	*218*	*6*	*321*
Unbleached	*264*	*16,600*	*160*	*10,495*	*13*	*752*	*91*	*5,353*
Other pulps[1]	16	389	16	389				
Screenings, chemical	2	51	2	51				
Newsprint	**8,134**	**1,113,240**	**6,225**	**873,378**	**463**	**59,622**	**1,446**	**180,240**
Standard	8,090	1,110,393	6,212	872,544	462	59,596	1,416	178,235
Mutilated	44	2,847	13	834	1	26	30	1,987
Other paper, and paperboard	**967**	**146,149**	**438**	**70,450**	**294**	**42,707**	**234**	**32,992**
Wrapping paper	112	18,125	15	3,086	79	12,108	18	2,931
Bleached sulphite and sulphate	*11*	*2,560*	*10*	*2,127*	*1*	*333*	[3]	*100*
Unbleached sulphite and sulphate	*100*	*15,436*	*5*	*864*	*78*	*11,750*	*17*	*2,822*
Wrapping[4]	[3]	*129*	[3]	*95*	[3]	*25*	[3]	*9*
Book and writing paper	339	69,636	272	51,862	26	6,505	41	11,269
Groundwood printing[4]	*153*	*25,138*	*149*	*24,246*			*4*	*892*
Paper for printing[4]	*85*	*19,095*	*58*	*13,202*	*16*	*3,311*	*11*	*2,582*
Writing and reproduction	*57*	*16,384*	*30*	*7,778*	*6*	*1,866*	*21*	*6,740*
Fine paper[4]	*9*	*2,517*	*1*	*134*	*5*	*1,328*	*3*	*1,055*
Paperboard	320	38,825	23	3,787	176	21,807	121	13,231
Liner board	*201*	*26,433*	[3]	*35*	*140*	*18,183*	*61*	*8,215*
Container board[4]	*102*	*8,534*	*10*	*761*	*33*	*3,016*	*59*	*4,757*
Solid bleached and folding boxboard	*2*	*439*	[3]	*75*	*2*	*311*	[3]	*53*
Set-up boxboard[4]	*5*	*888*	*4*	*754*	*1*	*131*	[3]	*3*
Wet machine board	*4*	*1,747*	*3*	*1,557*	[3]	*101*	[3]	*89*
Paperboard[4]	*6*	*784*	*5*	*605*	[3]	*65*	*1*	*114*
Building board	64	7,109	51	5,607	9	989	4	513
Rigid insulating board	*12*	*1,364*	*10*	*1,122*	[3]	*37*	*2*	*205*
Hardboard	*51*	*5,667*	*40*	*4,417*	*9*	*950*	*2*	*300*
Building board[4]	*1*	*77*	*1*	*68*	[3]	*2*	[3]	*7*
Asphalt shingles	38	2,025	10	502	[3]	14	28	1,509
Roofing and building paper[4]	18	1,387	11	778	[3]	42	7	567
Tissue paper, except sanitary	[3]	1	[3]	1				
Sanitary paper	18	4,784	6	1,641	3	997	9	2,146
Hanging, not printed	1	500	1	458			[3]	42
Special industrial paper	1	295	[3]	79	[3]	75	[3]	141
Coated paper, except machine coated	2	658	1	206	1	170	[3]	282
Waste paper[4]	54	2,804	48	2,443	[3]	[3]	6	361
Paper products[2]	**11**	**18,748**	**3**	**6,946**	**3**	**3,136**	**5**	**8,666**
Paper bags and multiwall sacks		658		139		21		498
Boxes and cartons, paperboard, and parts		2,412		894		95		1,423
Paper shipping containers and parts[4]		1,760		1,022		12		726
Hanging or wallpaper, printed	3	5,111	2	3,405			1	1,706
Packaged toilet paper	2	666	[3]	91			2	575
Notebooks, scribblers and pads		273		19		1		253
Stationery, paper office supplies[4]		948		337		43		568
Converted paper[4]	6	6,303	1	492	3	2,963	2	2,848
Paper end products[4]		617		547		1		69
Total	**14,694**	**2,063,365**	**9,982**	**1,436,227**	**1,137**	**155,005**	**3,574**	**472,133**

Note: Because quantities reported in hundredweights have been converted into thousands of tons and values reported in dollars have been rounded into thousands of dollars, breakdowns by grades or countries do not always cross-add.
1. Mechanical screenings included.
2. Weight of most paper products is unavailable.
3. Less than 500 tons or $500.
4. Not elsewhere specified.
Source: Dominion Bureau of Statistics.

II. Forests and Wood Supply

12

Pulpwood consumption by pulp and paper mills	Roundwood[1]	Roundwood[1]	Wood[2] residue	Wood[2] residue	Total	Total
	'000 Cunits	$'000[3]	'000 Cunits	$'000[3]	'000 Cunits	$'000[3]
1951	10,739	316,600	276	8,522	11,015	325,122
1952	10,192	334,677	270	8,243	10,462	342,920
1953	10,293	329,087	374	9,476	10,667	338,563
1954	11,034	332,854	569	11,775	11,603	344,629
1955	11,585	340,077	682	15,541	12,267	355,618
1956	11,927	369,263	796	18,883	12,723	388,146
1957	11,362	361,152	928	20,828	12,290	381,980
1958	10,730	338,226	1,057	22,301	11,787	360,527
1959	11,505	349,827	1,237	25,185	12,742	375,012
1960	11,999	361,859	1,518	31,092	13,517	392,950
1961	12,272	365,330	1,787	36,182	14,059	401,512
1962	12,675	368,960	2,064	43,797	14,739	412,757
1963	12,726	371,120	2,509	53,288	15,235	424,408
1964	13,725	402,270	2,975	68,710	16,700	470,980
1965	14,014	415,351	3,657	92,582	17,671	507,933
1966	15,074	472,526	4,438	106,696	19,512	579,222
1967	14,906	496,252	4,988	114,211	19,894	610,463
1968	15,616	523,343	5,872	143,321	21,488	666,664
1969	17,283	586,204	6,395	160,347	23,678	746,551
1970	17,041[4]	[5]	6,507[4]	[5]	23,548[4]	[5]

Note: A cunit equals 100 cubic feet of solid wood, excluding the bark.
1. Whole logs and bolts.
2. Sawmill chips, slabs, edgings, reject lumber, veneer cores and other residue.
3. Sum of values reported by pulp mills for roundwood or wood residue used (delivered price)
4. Canadian Pulp and Paper Association estimate.
5. Not available.
Source: Dominion Bureau of Statistics.

13

Apparent pulpwood production	Roundwood[1]	Wood residue[2]
	'000 Cunits	'000 Cunits
1951	13,159	394
1952	12,316	412
1953	11,768	541
1954	12,497	781
1955	13,070	975
1956	13,427	1,094
1957	12,739	1,242
1958	11,699	1,296
1959	12,320	1,447
1960	12,784	1,799
1961	12,998	2,129
1962	13,589	2,415
1963	13,563	2,987
1964	14,678	3,376
1965	15,082	3,953
1966	16,158	4,770
1967	15,765	5,413
1968	16,354	6,301
1969	18,074	6,670
1970	17,867[3]	6,852[3]

1. Whole logs and bolts. Quantity calculated on the basis of consumption plus exports minus imports. This takes no account of inventory changes and includes wood originally intended for use as sawlogs but diverted to pulp mills.
2. Consists chiefly of sawmill chips but also includes slabs, edgings, reject lumber, veneer cores and other residue.
3. Preliminary.
Source: Calculated by Canadian Pulp and Paper Association from Dominion Bureau of Statistics data shown in Tables 12 and 14.

14

Pulpwood exports and imports	Export: roundwood[1]	Export: wood residue[2]	Export: total	Import: roundwood[1]
	'000 Cunits	'000 Cunits	'000 Cunits	'000 Cunits
1951	2,460	118	2,578	40
1952	2,150	142	2,292	26
1953	1,516	167	1,683	41
1954	1,552	212	1,764	89
1955	1,600	293	1,893	115
1956	1,660	298	1,958	160
1957	1,530	314	1,844	153
1958	1,094	239	1,333	125
1959	941	210	1,151	126
1960	979	281	1,260	194
1961	902	342	1,244	176
1962	1,041	351	1,392	127
1963	947	478	1,424	110
1964	1,050	401	1,451	97
1965	1,158	296	1,454	90
1966	1,172	348	1,520	104
1967	988	425	1,413	129
1968	903	429	1,332	98
1969	884	275	1,159	93
1970	933	345	1,278	107

1. Whole logs and bolts.
2. Pulpwood chips only. Exports reported in tons have been converted to cunits on the basis of 0.355 cunit per ton.
Source: Dominion Bureau of Statistics.

15

Forest Land[1]	
	Sq. miles
Reserved forest land[2]	26,616
Not allocated to wood production (Crown)	538,222
Allocated to wood production (Crown)	579,134
Allocated to wood production (private)	100,319
Total forest land	**1,244,291**
Non forest land	2,293,281
Water (rivers and lakes)	313,822
Total, land and water	**3,851,394**

1. Land capable of producing stands of trees 4 inches DBH and larger on 10% or more of the area. Shelter belts and units of forest 5 acres or less and scattered are excluded.
2. Land in parks, game refuges, water conservation areas and nature preserves where, by legislation, wood production is not the primary use.
Source: Forest Economics Research Institute, Department of Fisheries and Forestry.

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Forest volume[1]	Conifers	Broad-leaved	Total
	billion cu.ft.	billion cu.ft.	billion cu.ft.
Newfoundland	4,010		4,010
Prince Edward Island	98	52	150
Nova Scotia	6,045	2,539	8,584
New Brunswick	11,947	4,921	16,868
Quebec	96,954	33,443	130,397
Ontario	66,593	44,830	111,423
Manitoba	9,991	2,763	12,754
Saskatchewan	9,913	7,087	17,000
Alberta	36,019	23,558	59,577
British Columbia[2]	261,313	7,322	268,635
Canada[3]	**502,883**	**126,515**	**629,398**

1. Merchantable timber. Non-reserved forest land only inventoried in 1968.
2. Mature timber only.
3. No inventories available for Labrador, the Yukon and Northwest Territories.
Source: Forest Economics Research Institute, Department of Fisheries and Forestry.

III. Pulp

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Wood pulp production	Dissolving & special alpha	Sulphite	Sulphate[3]	Mechanical	Defibrated & exploded	Semi-chemical[2]	Screenings[4]	Total
	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons
1951	409	2,136	1,217	5,172	113	137	130	9,315
1952	384	1,994	1,092	5,175	110	106	107	8,968
1953	431	1,968	1,206	5,123	125	126	98	9,077
1954	427	2,181	1,386	5,338	113	126	103	9,673
1955	402	2,415	1,471	5,467	139	155	102	10,151
1956	403	2,561	1,597	5,723	171	184	95	10,734
1957	342	2,397	1,706	5,574	153	172	82	10,425
1958	331	2,143	1,896	5,375	168	157	68	10,137
1959	391	2,130	2,234	5,656	174	173	75	10,832
1960	392	2,292	2,442	5,881	158	224	73	11,461
1961	373	2,415	2,697	5,878	136	208	73	11,779
1962	478	2,406	2,926	5,892	147	217	67	12,133
1963	429	2,566	3,136	5,850	160	247	87	12,474
1964	450	2,872	3,420	6,442	185	290	83	13,742
1965	475	2,924	3,905	6,802	187	195	85	14,573
1966	429	3,066	4,605	7,351	175	226	105	15,958
1967	434	2,827	5,068	7,041	208	212	66	15,857
1968	469	2,643	6,034	7,055	250	245	65	16,762
1969	500	2,794	6,945	7,680	318	286	67	18,590
1970[1]	460	2,818	6,771	7,636	321	326	58	18,390

1. Canadian Pulp and Paper Association estimates.
2. Soda included until 1964.
3. Soda included since 1965.
4. Mechanical and chemical screenings.

Source: Dominion Bureau of Statistics.

18

Wood pulp annual capacity	Dissolving & special alpha	Sulphite bleached	Sulphite unbleached	Sulphate bleached & semi-bleached	Sulphate unbleached	Mechanical[1]	Other[2]	Total
	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons
1951	[3]	876	1,674	547	605	5,583	221	9,506
1952	[3]	944	1,795	604	665	5,824	223	10,055
1953	511	490	1,794	598	656	5,866	221	10,136
1954	542	549	1,733	724	674	6,040	280	10,542
1955	514	589	1,773	734	739	6,177	304	10,830
1956	494	662	1,836	755	922	6,346	304	11,319
1957	518	667	1,925	1,113	929	6,713	333	12,198
1958	513	692	1,980	1,382	967	7,145	365	13,044
1959	507	712	1,970	1,318	1,021	7,176	369	13,073
1960	422	725	1,946	1,457	1,033	7,208	394	13,185
1961	375	828	2,033	1,832	1,076	7,128	330	13,602
1962	438	916	2,083	1,895	1,206	7,296	312	14,146
1963	445	951	2,169	2,097	1,232	7,458	310	14,662
1964	497	1,063	2,199	2,523	1,256	7,580	328	15,446
1965	522	953	2,229	2,879	1,338	7,932	362	16,215
1966	498	961	2,322	3,565	1,576	8,212	354	17,488
1967	492	913	2,384	4,609	1,674	8,545	364	18,981
1968	455	872	2,327	5,537	1,714	8,783	391	20,079
1969	503	822	2,432	6,013	1,806	9,439	396	21,411
1970	540	798	2,390	6,131	1,756	9,586	479	21,680
1971[4]	551	849	2,472	6,496	2,171	10,012	560	23,111
1972[4]	555	864	2,517	7,345	2,554	10,109	618	24,562
1973[4]	555	865	2,558	8,438	2,567	10,185	618	25,786

Note: Capacity is the normal maximum productive capacity as at the beginning of each year, plus or minus changes during the year from the date they become effective.
1. Groundwood, Defibrated and Exploded pulp and Groundwood screenings.
2. Soda and Semi-chemical pulps and Chemical screenings prior to 1965; Semi-chemical pulp and Chemical screenings since 1965.
3. Included with Sulphite and Sulphate.
4. Preliminary.

Source: Canadian Pulp and Paper Association.

19

Wood pulp exports, by grades	Dissolving & special alpha	Sulphite	Sulphate	Mechanical	Other wood pulp[1]	Screenings	All grades	All grades
	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	$'000
1951	363[2]	799	709	323	33	16	2,243	365,133
1952	339[2]	662	645	255	29	11	1,941	291,863
1953	383[2]	590	706	228	35	9	1,950	248,675
1954	369[2]	686	845	232	38	11	2,180	271,418
1955	330[2]	829	892	262	41	12	2,366	297,304
1956	303[2]	818	916[3]	275	45	16	2,374	304,536
1957	275[2]	691	1,016[3]	248	43	10	2,283	292,406
1958	218[2]	579	1,149[3]	233	32	7	2,219	285,449
1959	273[2]	513	1,376[3]	240	38	10	2,450	311,253
1960	242[2]	604	1,466[3]	235	43	11	2,601	325,122
1961	307	634	1,635	236	46	11	2,869	346,661
1962	355	705	1,681	260	34	9	3,044	369,902
1963	372	786	1,883	248	41	8	3,339	405,292
1964	402	885	2,018	286	39	7	3,636	460,854
1965	385	891	2,245	313	13	5	3,853	493,501
1966	364	852	2,615	254	[4]	11	4,096	520,067
1967	351	724	2,966	221	6	1	4,269	543,433
1968	368	636	3,742	219	5	1	4,971	627,875
1969	376	653	4,503	255	8	[4]	5,795	753,490
1970	333	664	4,290	277	16	2	5,582	785,228

1. Includes soda prior to 1966, mechanical screenings since 1967, and unspecified grades.
2. Sulphite only.
3. Includes sulphate dissolving pulp.
4. Less than 500 tons.

Source: Dominion Bureau of Statistics.

20

Wood pulp exports, by areas	United States	Other America	United Kingdom	Other Europe	Japan	Other Asia	Africa	Australia & New Zealand	All countries
	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons
1951	1,831	32	217	92	62	1	[1]	8	2,243
1952	1,589	32	211	65	30	3		11	1,941
1953	1,599	14	215	50	60	7	1	4	1,950
1954	1,670	60	271	101	44	28	2	3	2,180
1955	1,869	43	281	113	37	18	2	3	2,366
1956	1,920	25	244	82	84	13	2	5	2,374
1957	1,847	25	225	75	80	20	2	8	2,283
1958	1,833	38	216	71	22	29	2	9	2,219
1959	1,966	64	217	79	47	59	2	13	2,450
1960	2,000	76	283	129	20	61	1	32	2,601
1961	2,177	152	279	121	21	83	12	25	2,869
1962	2,399	91	252	148	53	76	3	24	3,044
1963	2,506	81	280	208	167	55	4	40	3,339
1964	2,677	82	339	270	180	44	6	39	3,636
1965	2,817	85	347	290	204	31	11	68	3,853
1966	2,978	81	324	344	261	51	13	45	4,096
1967	2,902	91	273	555	317	49	18	64	4,269
1968	3,226	101	317	795	410	43	17	63	4,971
1969	3,830	96	296	913	499	54	25	82	5,795
1970	3,316	89	377	1,072	520	95	35	78	5,582

1. Less than 500 tons.

Source: Dominion Bureau of Statistics.

21

Sulphate pulp exports, by areas	United States	Other America	United Kingdom	Other Europe	Japan	Other Asia	Africa	Australia & New Zealand
	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons
1951	622	12	39	25	10			1
1952	586	7	39	8	1	[1]		4
1953	642	10	24	15	10	4		1
1954	706	18	64	39	4	10	1	3
1955	762	21	61	36	1	8		3
1956	791	15	54	38	10	3		5
1957	875	12	45	37	30	9		8
1958	973	28	63	56	4	16	1	8
1959	1,121	58	75	72	[1]	35	1	13
1960	1,125	57	112	111		30	1	30
1961	1,237	107	103	106	15	45	3	19
1962	1,339	64	80	116	37	30	1	15
1963	1,425	36	106	145	124	20	[1]	27
1964	1,514	37	118	178	127	15	1	28
1965	1,675	39	116	190	147	20	7	50
1966	1,906	40	117	271	199	34	11	37
1967	1,924	53	171	454	263	36	12	54
1968	2,269	60	260	690	374	26	3	60
1969	2,816	51	257	788	458	44	18	71
1970	2,423	52	316	853	485	74	19	68

1. Less than 500 tons.

Source: Dominion Bureau of Statistics.

22

Dissolving and special alpha pulps (sulphite and sulphate)	Production	Exports	Exports
	'000 Tons	'000 Tons	$'000
1957	342	275[1]	49,217
1958	331	218[1]	39,024
1959	391	273[1]	48,429
1960	392	242[1]	42,708
1961	373	307	51,956
1962	478	355	61,344
1963	429	372	64,485
1964	450	402	71,123
1965	475	385	69,547
1966	429	364	65,034
1967	434	351	64,315
1968	469	368	69,231
1969	500	376	70,100
1970	460[2]	333	63,869

1. Sulphite only.
2. Canadian Pulp and Paper Association estimate.
Source: Dominion Bureau of Statistics.

23

Sulphite pulp, paper grades	Production	Exports	Exports
	'000 Tons	'000 Tons	$'000
Bleached			
1957	584	398	53,601
1958	536	361	49,434
1959	507	333	45,832
1960	572	434	57,608
1961	684	444	55,510
1962	717	501	61,702
1963	847	568	67,904
1964	958	627	79,831
1965	900	628	81,977
1966	898	605	78,989
1967	813	522	68,406
1968	751	506	65,542
1969	753	505	69,853
1970	762[1]	485	71,780
Unbleached			
1957	1,812	294	35,686
1958	1,607	218	27,137
1959	1,623	180	22,029
1960	1,719	170	19,744
1961	1,731	190	21,153
1962	1,689	204	22,456
1963	1,719	219	22,956
1964	1,914	258	26,959
1965	2,024	263	27,924
1966	2,168	246	24,974
1967	2,014	202	20,487
1968	1,892	131	13,572
1969	2,041	147	16,275
1970	2,056[1]	179	22,426
Total			
1957	2,397	691	89,287
1958	2,143	579	76,570
1959	2,130	513	67,861
1960	2,292	604	77,352
1961	2,415	634	76,663
1962	2,406	705	84,157
1963	2,566	786	90,860
1964	2,872	885	106,790
1965	2,924	891	109,901
1966	3,066	852	103,963
1967	2,827	724	88,893
1968	2,643	636	79,114
1969	2,794	653	86,128
1970	2,818[1]	664	94,206

1. Canadian Pulp and Paper Association estimate.
Source: Dominion Bureau of Statistics.

24

Sulphate pulp, paper grades	Production	Exports	Exports
	'000 Tons	'000 Tons	$'000
Bleached			
1957	799	749[1,2]	103,274[1,2]
1958	909	900[1,2]	124,428[1,2]
1959	1,061	909[1]	126,511[1]
1960	1,171	980[1]	134,792[1]
1961	1,293	1,060	139,551
1962	1,413	1,147	149,000
1963	1,624	1,375	176,289
1964	1,825	1,505	204,225
1965	1,904	1,655	227,462
1966	2,440	1,987	266,352
1967	2,680	2,285	302,136
1968	3,401	3,000	385,589
1969	4,032	3,539	472,405
1970	4,076[3]	3,413	500,177
Semi-bleached			
1957	115	[4]	[4]
1958	173	[4]	[4]
1959	242	150	17,035
1960	284	140	16,013
1961	323	161	17,439
1962	421	184	19,736
1963	396	152	17,175
1964	621	192	22,647
1965	624	223	26,602
1966	723	234	27,420
1967	912	313	35,844
1968	1,176	381	43,206
1969	1,495	537	64,032
1970	1,141[3]	515	67,509
Unbleached			
1957	791	267	26,757
1958	814	248	24,295
1959	931	317	29,011
1960	987	346	31,839
1961	1,081	413	38,833
1962	1,092	350	33,286
1963	1,115	356	34,201
1964	974	321	32,289
1965	1,259	367	37,348
1966	1,442	394	39,471
1967	1,476	368	37,448
1968	1,457	361	36,983
1969	1,418	427	44,721
1970	1,554[3]	361	41,695
Total			
1957	1,706	1,016[1]	130,032
1958	1,896	1,149[1]	148,723
1959	2,234	1,376[1]	172,557
1960	2,442	1,466[1]	182,644
1961	2,697	1,635	195,822
1962	2,926	1,681	202,022
1963	3,136	1,883	227,666
1964	3,420	2,018	259,162
1965	3,787	2,245	291,412
1966	4,605	2,615	333,243
1967	5,068	2,966	375,428
1968	6,034	3,742	465,778
1969	6,945	4,503	581,158
1970	6,771[3]	4,290	609,381

1. Includes sulphate dissolving pulp.
2. Includes semi-bleached.
3. Canadian Pulp and Paper Association estimate.
4. Not available.
Source: Dominion Bureau of Statistics.

25

Mechanical pulp	Production	Exports	Exports
	'000 Tons	'000 Tons	$'000
Bleached			
1957	50	35	2,508
1958	94	15	1,107
1959	274	13	1,004
1960	327	13	991
1961	354	17	1,406
1962	380	23	1,812
1963	543	18	1,436
1964	449	13	1,041
1965	747	8	596
1966	[2]	6	453
1967	[2]	3	205
1968	[2]	1	33
1969	[2]	4	246
1970	[2]	13	732
Unbleached			
1957	5,525	213	15,058
1958	5,281	217	15,088
1959	5,381	228	15,657
1960	5,553	223	15,358
1961	5,525	218	14,576
1962	5,511	237	15,886
1963	5,306	229	15,398
1964	5,993	272	12,256
1965	6,055	306	20,147
1966	[2]	248	16,807
1967	[2]	218	14,408
1968	[2]	218	13,599
1969	[2]	250	15,697
1970	[2]	264	16,600
Total			
1957	5,575	248	17,566
1958	5,375	233	16,195
1959	5,656	240	16,661
1960	5,881	235	16,348
1961	5,878	236	15,982
1962	5,892	260	17,698
1963	5,850	248	16,833
1964	6,442	286	18,528
1965	6,802	313	20,743
1966	7,351	254	17,260
1967	7,041	221	14,613
1968	7,055	219	13,632
1969	7,680	255	15,943
1970	7,636[1]	277	17,332

1. Canadian Pulp and Paper Association estimate.
2. Not available.
Source: Dominion Bureau of Statistics.

26

Wood pulp imports	Dissolving & special alpha[1]	Sulphite	Sulphate	Mechanical	Other wood pulp	Total	Total
	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	$'000
1951		31	4	2	[2]	36	4,546
1952		35	5	15		55	4,499
1953		33	7	3		43	5,100
1954		36	12	4		52	5,850
1955		47	13	[2]		60	6,989
1956		51	13			64	8,117
1957		47	18			65	8,345
1958		35	19	[2]		54	7,346
1959		40	25			65	8,967
1960		47	17	[2]		64	8,657
1961		48	13	[2]		62	8,404
1962		53	10			63	8,962
1963		61	13			74	10,264
1964	22	41	11		2	75	10,440
1965	28	39	24		3	94	13,296
1966	16	25	16		1	58	8,042
1967	16	6	13		1	36	5,122
1968	18	10	18		1	46	6,512
1969	17	5	15	[2]	1	39	5,631
1970	7	7	37		[2]	51	8,616

1. Included with bleached sulphite prior to 1964.
2. Less than 500 tons.
Source: Dominion Bureau of Statistics.

27

Sources of U.S. wood pulp supply

	U.S. pulp production		Imports from Canada		Imports from other countries		Total supply
	'000 Tons	%	'000 Tons	%	'000 Tons	%	'000 Tons
1951	16,524	87.5	1,877	9.9	484	2.6	18,885
1952	16,473	89.5	1,581	8.6	360	1.9	18,414
1953	17,537	89.0	1,614	8.2	544	2.8	19,695
1954	18,302	89.9	1,679	8.3	373	1.8	20,354
1955	20,740	90.4	1,865	8.1	348	1.5	22,953
1956	22,131	90.4	1,957	8.0	377	1.6	24,465
1957	21,800	91.2	1,840	7.7	267	1.1	23,907
1958	21,796	91.2	1,819	7.6	283	1.2	23,898
1959	24,383	90.9	1,975	7.4	456	1.7	26,814
1960	25,316	91.4	2,032	7.3	349	1.3	27,697
1961	26,523	91.5	2,200	7.6	267	0.9	28,990
1962	27,908	90.9	2,435	7.9	353	1.2	30,696
1963	29,439	91.4	2,532	7.9	243	0.7	32,214
1964	31,911	91.6	2,702	7.7	240	0.7	34,853
1965	33,296	91.4	2,820	7.7	317	0.9	36,433
1966	35,636	91.4	3,013	7.7	345	0.9	38,994
1967	36,355	92.0	2,889	7.3	277	0.7	39,521
1968	39,196	90.3	3,266	9.1	266	0.6	42,728
1969	40,990	90.5	3,871	8.4	437	1.0	45,298
1970	42,216	92.3	3,370	7.4	168	0.3	45,754

Source: American Paper Institute — Pulp Division.

28

Average value per ton of U.S. pulp imports from Canada

	Dissolving & special alpha[1]	Bleached sulphite paper grades	Unbleached sulphite	Bleached sulphate paper grades[2]	Unbleached & semi-bleached sulphate	Mechanical
	U.S. $	U.S. $	U.S. $	U.S. $	U.S. $	U.S. $
1951	176.89	152.79	129.97	167.50	148.42	81.06
1952	182.13	148.44	135.01	160.05	132.24	76.80
1953	181.17	134.55	111.17	135.82	106.36	73.36
1954	176.42	133.86	108.00	133.39	109.53	74.20
1955	177.46	136.13	114.23	138.74	113.13	74.47
1956	178.28	142.17	118.27	142.71	115.73	75.61
1957	187.70	147.66	122.06	144.65	109.02	74.67
1958	180.07	150.84	124.74	144.26	103.20	74.60
1959	186.22	147.72	126.51	145.20	102.76	74.54
1960	172.34	141.65	115.77	140.66	109.42	74.77
1961	156.16	136.71	110.18	132.48	117.70	73.58
1962	159.68	126.57	107.27	128.10	111.93	69.66
1963	163.11	122.54	105.38	128.49	116.75	66.29
1964	169.34	128.91	108.54	135.71	124.60	69.51
1965	173.48	131.84	109.63	137.12	124.24	70.75
1966	170.37	131.55	107.11	134.21	121.39	73.63
1967	177.64	132.58	107.61	129.87	119.78	73.02
1968	176.79	133.32	107.40	125.43	110.19	71.78
1969	174.76	135.21	110.13	127.73	112.98	63.78
1970	182.56	143.40	113.13	143.62	123.56	64.79

1. Sulphite only prior to 1955; Sulphite and Sulphate from 1955.
2. Includes dissolving and special chemical grades of sulphate prior to 1955.
Source: American Paper Institute — Pulp Division.

29

Consumption in Canada of wood pulp for paper, paperboard, and other board production, by kinds

	Sulphite	Sulphate	Mechanical	Screenings	Defibrated & exploded	Other wood-pulp	Total
	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons
1953	1,420	514	4,903	87	125	97	7,147
1954	1,505	555	5,094	96	113	94	7,456
1955	1,646	591	5,214	92	139	119	7,800
1956	1,801	703	5,439	79	171	146	8,339
1957	1,762[1]	702	5,327	67	155	130	8,143
1958	1,617[1]	772	5,136	58	171	127	7,882
1959	1,690[1]	889	5,398	64	181	145	8,367
1960	1,817[1]	968	5,625	59	166	198	8,833
1961	1,832[1]	1,032	5,628	64	125	193	8,874
1962	1,786[1]	1,203	5,621	52	147	195	9,004
1963	1,798[1]	1,310	5,574	62	160	217	9,120
1964	2,009[1]	1,400	6,136	63	184	252	10,045
1965	2,078[1]	1,581	6,497	71	187	266	10,679
1966	2,232[1]	1,906	7,053	100	175	233	11,699
1967	2,095[1]	2,096	6,802	59	148	212	11,413
1968	2,056[1]	2,180	6,841	63	250	245	11,635
1969	2,260[1]	2,498	7,407	65	299	286	12,814
1970	2,183[1 2]	2,403[2]	7,314[2]	56[2]	302[2]	330[2]	12,558[2]

1. Includes dissolving and special alpha (sulphite and sulphate).
2. Canadian Paper and Pulp Association estimate.

Source: Dominion Bureau of Statistics.

Consumption in Canada of wood pulp for paper, paperboard, and other board production, by sources	Sulphite	Sulphate	Mechanical	Screenings	Defibrated & exploded	Other wood-pulp	Total
	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons
Own pulp from same mill							
1953	1,193	438	4,844	60	125	83	6,744
1954	1,274	458	5,058	66	113	78	7,048
1955	1,379	475	5,157	65	139	100	7,315
1956	1,534	585	5,377	56	171	118	7,840
1957	1,507	573	5,285	51	152	106	7,674
1958	1,386	640	5,113	43	168	101	7,450
1959	1,452	730	5,376	49	174	114	7,894
1960	1,587	803	5,608	46	158	168	8,370
1961	1,600	842	5,614	45	125	163	8,389
1962	1,542	934	5,603	35	147	161	8,422
1963	1,548	997	5,554	43	160	183	8,484
1964	1,739	1,018	6,107	43	184	213	9,304
1965	1,801	1,142	6,463	51	187	227	9,872
1966	1,952	1,384	7,026	82	175	226	10,845
1967	1,860	1,494	6,760	46	148	212	10,520
1968	1,829	1,583	6,811	49	250	245	10,767
1969	2,026	1,829	7,385	49	293	286	11,868
1970	1,983[2]	1,732[2]	7,291[2]	43[2]	296[2]	325[2]	11,670[2]
Own pulp from other mills							
1953	146	23	9	17		4	199
1954	152	24	8	17		3	205
1955	167	30	8	18		5	229
1956	155	30	20	17		6	228
1957	146[3]	28	12	10		6	202
1958	115[3]	22	8	5		3	152
1959	136[3]	22	5	6		2	171
1960	136[3]	24	5	4		2	170
1961	133[3]	32	2	10		2	179
1962	148[3]	90	4	9		6	256
1963	156[3]	134	6	12		7	314
1964	161[3]	170	6	13		9	358
1965	168[3]	167	5	12		9	361
1966	136[3]	192	7	11		2	348
1967	104[3]	270	9	9		[1]	392
1968	117[3]	233	8	10		3	371
1969	99[3]	252	8	11			370
1970	88[2 3]	241[2]	9[2]	8[2]			346[2]
Purchased pulp							
1953	81	53	50	11	[1]	10	204
1954	79	73	28	12		12	204
1955	99	86	48	8		14	256
1956	113	88	42	6		22	271
1957	109	100	30	7	2	18	267
1958	116[3]	111	15	10	3	24	279
1959	102[3]	137	16	9	7	29	302
1960	94[3]	141	12	1	8	28	293
1961	99[3]	158	11	10		28	306
1962	96[3]	179	14	8		28	325
1963	94[3]	179	15	6		28	322
1964	110[3]	212	23	7		31	382
1965	109[3]	272	28	8		29	446
1966	144[3]	330	20	7		5	506
1967	131[3]	332	33	4			501
1968	109[3]	357	21	4		4	497
1969	135[3]	417	14	5	6	[1]	576
1970	112[2 3]	430[2]	14[2]	5[2]	6	5	330[2]

1. Less than 500 tons.
2. Canadian Pulp and Paper Association estimate.
3. Includes dissolving and special alpha (sulphite and sulphate).
Source: Dominion Bureau of Statistics.

IV. Newsprint

31

Newsprint production	Production	Operating ratio
	'000 Tons	%
1951	5,516	102.9
1952	5,687	103.2
1953	5,721	100.0
1954	5,984	101.1
1955	6,191	102.1
1956	6,469	103.6
1957	6,397	94.7
1958	6,096	84.2
1959	6,394	85.0
1960	6,739	88.5
1961	6,735	87.1
1962	6,691	85.3
1963	6,630	82.3
1964	7,301	88.2
1965	7,720	91.7
1966	8,419	94.8
1967	8,051	86.6
1968	8,031	83.2
1969	8,758	91.1[1]
1970	8,607	88.6[1]

1. See note and footnote, Table 32.
Source: Newsprint Division, Canadian Pulp and Paper Association.

32

Newsprint capacity	Annual capacity
	'000 Tons
1951	5,360
1952	5,510
1953	5,723
1954	5,920
1955	6,064
1956	6,243
1957	6,756
1958	7,239
1959	7,521
1960	7,611
1961	7,734
1962	7,844
1963	8,055
1964	8,274
1965	8,421
1966	8,878
1967	9,294
1968	9,655
1969	9,612[1]
1970	9,719[1]
1971	10,120[1]

Capacity is shown as at the beginning of each year plus allowances for new machines from the date they are expected to operate. It is possible for production to exceed capacity partly because no allowance is made for improvements in equipment during the year.

1. Changes made in calculation of capacity commencing with the year 1969 are fully explained in the Canadian Pulp and Paper Association's annual world survey "Newsprint Data: 1970". Amounts shown for the years prior to 1969 are on the old rating basis.

Source: Newsprint Division, Canadian Pulp and Paper Association.

33

Newsprint shipments	Shipments in Canada	Exports	Total shipments
	'000 Tons	'000 Tons	'000 Tons
1951	360	5,144	5,504
1952	369	5,298	5,666
1953	398	5,334	5,733
1954	421	5,550	5,970
1955	430	5,805	6,236
1956	477	5,972	6,449
1957	457	5,907	6,364
1958	434	5,609	6,043
1959	473	5,953	6,425
1960	487	6,265	6,752
1961	492	6,216	6,707
1962	511	6,169	6,680
1963	523	6,100	6,622
1964	550	6,759	7,310
1965	590	7,157	7,747
1966	620	7,764	8,385
1967	638	7,330	7,968
1968	674	7,422	8,096
1969	708	8,033	8,741
1970	716	7,876	8,592

Source: Newsprint Division, Canadian Pulp and Paper Association.

34

Newsprint exports by areas	United States	United Kingdom	Central & South America	Western Europe	Africa & Mediterra-nean area	India & Orient	Australia New Zealand & Fiji	All countries
	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons
1951	4,784	103	132	20	24	43	38	5,144
1952	4,835	136	163	10	42	36	76	5,298
1953	4,861	190	158	4	28	44	48	5,334
1954	4,875	273	186	54	32	52	77	5,550
1955	5,070	307	167	70	40	52	99	5,805
1956	5,230	355	192	34	45	41	74	5,972
1957	5,055	396	240	34	53	47	83	5,907
1958	4,827	394	202	26	54	26	80	5,609
1959	5,118	415	207	6	65	39	102	5,953
1960	5,279	479	235	15	73	22	162	6,265
1961	5,227	459	272	23	58	30	147	6,216
1962	5,229	498	233	10	43	47	110	6,169
1963	5,180	458	245	24	46	66	82	6,100
1964	5,648	481	261	18	67	154	130	6,759
1965	6,093	390	324	61	59	107	122	7,157
1966	6,610	386	389	83	17	133	146	7,764
1967	6,263	345	348	81	7	155	131	7,330
1968	6,107	441	394	74	14	257	135	7,422
1969	6,417	461	540	109	28	353	125	8,033
1970	6,144	414	637	138	64	338	139	7,876

Source: Newsprint Division, Canadian Pulp and Paper Association.

35

Value of newsprint production and exports	Production[1]	Exports
	$'000	$'000
1951	564,361	536,372
1952	600,516	591,790
1953	633,408	619,033
1954	657,487	635,670
1955	688,338	665,877
1956	734,426	708,385
1957	724,613	715,490
1958	694,067	690,209
1959	732,849	722,271
1960	793,470	757,930
1961	804,641	761,313
1962	819,079	753,060
1963	809,247	759,990
1964	887,612	834,646
1965	927,832	869.586
1966	1,025,048	968,224
1967	998,020	955,261
1968	1,015,794	989,831
1969	1,114,707	1,125,801
1970	1,096,924[2]	1,110,393

1. "Total selling value at mill" (of production) prior to 1956; "Value of shipments f.o.b. mill" beginning in 1956.
2. Canadian Pulp and Paper Association estimate.
Source: Dominion Bureau of Statistics.

36

Value of newsprint and total pulp and paper production	Newsprint production[1]	Total production[2]	Newsprint % of total
	$'000,000	$'000,000	
1951	564.4	1,237.9	45.6
1952	600.5	1,157.9	51.9
1953	633.4	1,179.7	53.7
1954	657.5	1,241.6	53.0
1955	688.3	1,326.9	51.9
1956	734.4	1,453.4	50.5
1957	724.6	1,415.8	51.2
1958	694.1	1,398.3	49.6
1959	732.8	1,502.3	48.7
1960	793.4	1,583.1	50.1
1961	804.6	1,632.8	49.3
1962	819.1	1,716.3	47.7
1963	809.2	1,793.2	45.1
1964	887.6	1,984.1	44.7
1965	927.8	2,104.4	44.1
1966	1,025.0	2,297.7	44.6
1967	998.0	2,301.0	43.4
1968	1,015.8	2,446.9	41.5
1969	1,114.7	2,771.3	40.2
1970[3]	1,096.9	2,685.4	40.8

1. See footnote 1, Table 35.
2. See footnote 2, Table 50.
3. Canadian Pulp and Paper Association estimate.
Source: Dominion Bureau of Statistics.

37

Sources of U.S. newsprint supply	Canada		U.S.		Europe		Total
	'000 Tons	%	'000 Tons	%	'000 Tons	%	'000 Tons
1951	4,784	79	1,108	18	206	3	6,097
1952	4,835	79	1,075	18	183	3	6,093
1953	4,861	80	1,057	17	164	3	6,083
1954	4,875	80	1,121	18	128	2	6,124
1955	5,070	77	1,374	21	146	2	6,589
1956	5,230	74	1,583	22	311	4	7,124
1957	5,055	73	1,698	25	155	2	6,908
1958	4,827	73	1,676	25	109	2	6,611
1959	5,118	71	1,909	27	124	2	7,151
1960	5,279	72	1,954	26	147	2	7,379
1961	5,227	71	1,965	27	155	2	7,346
1962	5,229	70	2,086	28	186	2	7,500
1963	5,180	69	2,099	28	189	3	7,468
1964	5,648	70	2,170	27	260	3	8,078
1965	6,093	72	2,118	25	255	3	8,466
1966	6,610	72	2,339	25	274	3	9,223
1967	6,263	69	2,523	28	283	3	9,069
1968	6,107	66	2,835	31	284	3	9,225
1969	6,417	65	3,116	32	293	3	9,826
1970	6,144	64	3,162	33	314	3	9,621

Source: All figures for supply from Europe are compiled from U.S. Department of Commerce reports; supplies from Canada and U.S. are compiled from reports of mill shipments to the Newsprint Division, Canadian Pulp and Paper Association, and to the American Paper Institute, respectively.

38

U.S.: prices and price indexes	Average delivered at New York[1]	Newsprint index 1926 = 100
1951	111.00	158.6
1952	121.00	172.9
1953	126.00	180.0
1954	126.00	180.0
1955	126.00	180.0
1956	130.00	185.7
1957	133.00	190.0
1958	134.00	191.0
1959	134.00	191.0
1960	134.00	191.0
1961	134.00	191.0
1962	134.00	191.0
1963	134.00	191.0
1964	134.00	191.0
1965	134.00	191.0
1966	136.92	195.6
1967	140.50	200.7
1968	142.00	202.9
1969	147.00	210.0
1970	152.00	217.1

1. U.S. Dollars.
Source: Newsprint Division, Canadian Pulp and Paper Association.

39

U.S. newsprint industry	Capacity	Production	Shipments to U.S.A.	Shipments overseas	Total shipments
	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons
1951	1,050	1,125	1,108	18	1,125
1952	1,165	1,147	1,076	67	1,143
1953	1,170	1,084	1,057	30	1,088
1954	1,280	1,211	1,121	92	1,213
1955	1,409	1,552	1,374	177	1,550
1956	1,625	1,717	1,583	133	1,715
1957	1,921	1,826	1,698	118	1,817
1958	2,100	1,758	1,676	85	1,761
1959	2,390	1,964	1,909	53	1,963
1960	2,399	2,038	1,954	77	2,031
1961	2,376	2,094	1,965	122	2,086
1962	2,471	2,154	2,086	76	2,162
1963	2,461	2,218	2,099	109	2,208
1964	2,469	2,261	2,170	104	2,273
1965	2,497	2,180	2,118	65	2,183
1966	2,647	2,408	2,339	66	2,405
1967	3,024	2,620	2,523	79	2,602
1968[1]	3,254	2,935	2,835	112	2,946
1969[1]	3,549	3,232	3,116	117	3,233
1970	3,396	3,310	3,162	141	3,303

These figures are compiled from U.S. mill reports and shipments to overseas show only exports direct from mills. They do not include tonnage delivered to U.S. buyers and subsequently resold for export, such as tonnage being included in shipments to U.S.A. Exports as reported by U.S. Department of Commerce are thus higher than mill reports; in 1970 the Department showed exports of 144,000 tons versus 141,000 tons reported by the mills.

1. Capacity for the years 1968 on have been adjusted in order to represent more realistically maximum possible production.

Source: Newsprint Division, American Paper Institute.

40

U.S. newsprint consumption and stocks

	Consumption ANPA	Consumption total	Consumption per capita	Consumers' stocks[1] ANPA	Consumers' stocks[1] total
	'000 Tons	'000 Tons	Lbs.	'000 Tons	'000 Tons
1951	4,511	5,975	77.4	522	716
1952	4,551	5,988	76.3	612	821
1953	4,669	6,143	76.9	552	761
1954	4,684	6,163	75.9	516	722
1955	5,045	6,638	80.3	458	673
1956	5,209	6,899	82.1	636	898
1957	5,149	6,865	80.2	675	940
1958	4,950	6,644	76.3	652	907
1959	5,328	7,151	81.0	659	907
1960	5,532	7,426	82.2	628	861
1961	5,461	7,380	80.4	584	827
1962	5,577	7,486	80.3	604	841
1963	5,585	7,547	79.8	545	762
1964	6,031	8,042	83.7	585	798
1965	6,387	8,460	87.0	573	805
1966	6,898	9,077	92.2	681	951
1967	6,907	9,149	91.9	630	871
1968	7,025	9,244	91.9	633	853
1969	7,344	9,741	95.9	699	938
1970	7,130	9,545	93.2	749	1,013

Note: U.S. total consumption is based on consumption reported by the American Newspaper Publishers Association group. For each year the percentage of total U.S. supply taken by this group is assumed to represent the percentage of total consumption consumed by the group. Total U.S. consumption is obtained by extending ANPA consumption by this percentage to 100. Total consumers' stocks at the beginning of each year plus supplies received less total consumption equals stocks at the end of the year.

1. End of each year.

Source: Newsprint Division, Canadian Pulp and Paper Association.

41

Consumption by larger newspapers	1970	1969
	'000 Tons	'000 Tons
Canada		
Calgary Herald	15	14
Edmonton Journal	21	20
Halifax Chronicle - Herald & Mail Star	10	10
Hamilton Spectator	17	17
London Free Press	15	15
Montreal Gazette	13	13
Montreal La Presse	37	38
Montreal Star	31	34
Ottawa Citizen	10	10
Quebec Le Soleil	18	17
Toronto Globe & Mail	32	33
Toronto Telegram	44	47
Vancouver Sun & Province	36'	54
Winnipeg Tribune	8	9
United States		
Atlanta Journal & Constitution	111	110
Baltimore Sun	45'	64
Chicago Sun Times & Daily News	158	162
Chicago Today & Tribune	261	284
Cleveland Plain Dealer	96	105
Denver Post	51	52
Des Moines Register & Tribune	35	37
Detroit News	149	150
Kansas City Star & Times	72	79
Louisville Courier — Journal & Times	94	91
Miami Herald	137	133
Milwaukee Journal & Sentinel	109	121
New York News	365	364
New York Times	337	385
Philadelphia Enquirer	122[2]	138
Pittsburg Press & Post Gazette	99	104
St. Louis Post — Dispatch	77	82
Washington Post	155	156

1. Curtailed by strike.
2. Excludes Sunday comics and magazine.

Source: Newsprint Division, Canadian Pulp and Paper Association.

V. Other Paper and Paperboard

42

Paperboard production	Container board liner board	Container board corrugating[1]	Container board total	Boxboard folding board	Boxboard non-folding board	Boxboard solid bleached board	Boxboard other	Boxboard total	Total paperboard
	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons
1950	214	152	366	158	48	[3]	200	405	771
1951	223	159	382	172	49	[3]	217	439	820
1952	219	134	354	156	43	[3]	191	390	743
1953	237	149	386	169	48	[3]	201	418	804
1954	244	135	379	175	46	[3]	199	420	799
1955	259	158	417	186	48	[3]	211	445	861
1956	330	172	502	216	48	[3]	212	476	978
1957	309	163	473	215	46	[3]	192	453	926
1958	318	181	499	237	61	[3]	183	481	980
1959	355	185	540	241	72	[3]	180	494	1,033
1960	376	208	583	233	65	14	165	476	1,060
1961	393	202	595	230	72	16	144	462	1,057
1962	441	224	665	247	79	17	160	503	1,168
1963	511	227	738	280	78	21	173	553	1,290
1964	522	240	762	247	92	86	229	654	1,416
1965	595	251	845	265	104	89	237	694	1,539
1966	677	284	961	278	112	103	227	721	1,682
1967	699	294	993	265	119	77	251	712	1,705
1968	723	299	1,022	264	122	73	265	724	1,746
1969	777	336	1,113	268	125	93	296	781	1,895
1970[2]	764	349	1,113	255	113	77	265	710	1,823

1. Includes container chipboard.
2. Canadian Pulp and Paper Association estimates.
3. Included with folding board.
Source: Dominion Bureau of Statistics.

43

Production, other papers and boards	Wrapping papers	Book & writing papers[1]	Tissue & sanitary papers	Building papers	Building boards[2]	Wet machine boards[3]	Special industrial papers
	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons
1950	223	214	77	92	97	9	10
1951	257	253	90	92	131	9	12
1952	223	225	80	82	123	8	11
1953	238	247	87	91	137	8	10
1954	250	269	95	85	134	7	9
1955	264	301	107	96	158	8	8
1956	288	342	119	92	187	8	7
1957	277	335	123	82	180	9	7
1958	293	345	128	90	202	7	6
1959	330	382	140	85	215	7	7
1960	321	404	149	77	210	7	6
1961	327	420	157	74	221[5]	9	7
1962	333	435	169	89	210[5]	10	8
1963	341	465	201	90	219	[4]	16
1964	346	495	196	94	291	[4]	16
1965	366	534	193	88	297	[4]	20
1966	429	650	208	86	284	[4]	27
1967	463	646	224	83	306	[4]	23
1968	468	674	254	98	357	[4]	29
1969	505	759	281	116	393	[4]	23
1970	472[5]	899[5]	282[5]	113[5]	373[5]	[4]	23[5]

1. Groundwood printing and specialty papers (containing more than 50% groundwood); book paper (including printing papers with 50% or less groundwood); fine papers; and miscellaneous fine papers.
2. Reported in pulp and paper industry only. Wood pulp board used in paper-converting plants to produce laminated building boards is reported by pulp and paper mills as "other boxboard".
3. Prior to 1949 some producers of wet machine board were classed in another industry.
4. Included with special industrial papers.
5. Canadian Pulp and Paper Association estimate.
Source: Dominion Bureau of Statistics.

44

Exports of paper (except newsprint) and paperboard, tonnage	Book & writing paper	Wrapping paper	Tissue & sanitary paper	Paperboard	Building board	Other paper & board [1]	Total
	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons
1960	61	34	5	104	25	46	275
1961	64	43	7	105	24	54	297
1962	70	36	13	129	24	56	328
1963	78	31	12	169	33	62	385
1964	108	32	15	178	42	67	442
1965	130	29	12	186	58	82	497
1966	171	47	14	254	39	114	639
1967	182	100	19	244	40	90	675
1968	162	111	19	253	62	113	720
1969	244	99	16	286	67	114	826
1970	339	112	18	320	64	114	967

In the past, the basis and classification upon which exports of paper other than newsprint have been compiled have been modified from time to time. Consequently, only figures covering recent years are included in this and Tables 45 and 46.
Again, the tonnage figures for certain paper products exported are not available. The dollar figures covering these exports will be found in Table 47.

1. Coated paper (except machine coated), asphalt, shingles and roofing and building paper, special industrial paper, hanging paper, not printed, and waste paper, n.o.p.

Source: Dominion Bureau of Statistics.

45

Exports of paper (except newsprint) and paperboard, value	Book & writing paper	Wrapping paper	Tissue & sanitary paper	Paperboard	Building board	Other paper & board [1]	Total
	$'000	$'000	$'000	$'000	$'000	$'000	$'000
1960	12,170	5,408	1,112	11,858	2,259	2,157	34,964
1961	12,880	6,464	1,496	12,159	2,191	2,761	37,951
1962	14,013	5,712	3,004	14,915	2,417	3,653	43,714
1963	15,578	5,312	2,597	19,621	3,397	4,449	50,954
1964	21,072	5,708	3,460	20,454	4,472	5,000	60,166
1965	24,749	5,348	2,820	21,300	6,007	6,022	66,246
1966	32,932	8,182	3,193	29,732	4,436	8,413	86,888
1967	35,516	14,992	4,169	28,207	4,315	6,995	94,194
1968	32,321	16,399	4,193	29,316	6,452	6,972	95,653
1969	48,663	15,050	4,121	33,626	7,582	7,565	116,607
1970	69,636	18,125	4,785	38,825	7,109	7,669	146,149

Note: See footnotes accompanying Table 44.
Source: Dominion Bureau of Statistics.

46

Exports of paper (except newsprint) and paperboard, by areas	United States	United States	United Kingdom	United Kingdom	Other countries	Other countries	All countries	All countries
	'000 Tons	$'000	'000 Tons	$'000	'000 Tons	$'000	'000 Tons	$'000
1960	111	12,559	131	16,036	33	6,369	275	34,964
1961	107	12,074	129	16,608	50	9,269	286	37,951
1962	130	13,887	155	21,404	43	8,423	328	43,714
1963	150	16,566	185	25,564	50	8,824	385	50,954
1964	172	19,640	191	27,898	79	12,628	443	60,166
1965	224	26,726	189	25,595	83	13,925	497	66,250
1966	275	34,931	241	32,952	123	18,995	639	86,888
1967	254	35,013	295	39,170	126	20,011	675	94,194
1968	283	37,303	287	37,014	150	21,311	720	95,653
1969	374	56,785	260	33,875	190	25,947	826	116,607
1970	438	70,450	294	42,707	234	32,992	967	146,149

Source: Dominion Bureau of Statistics.

47

Exports of paper products	Paper bags & multi-wall sacks	Paper containers & parts (n.e.s.)	Wall paper	Packaged toilet paper	Notebooks scribblers & pads	Stationery paper office supplies (n.e.s.)	Converted paper	Paper end products (n.e.s.)	Total
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
1961	543	703	1,378	426	147	308	242	141	3,888
1962	499	1,110	1,645	644	161	369	416	141	4,985
1963	484	1,040	1,665	955	224	450	1,551	172	6,541
1964	579	1,350	1,805	984	253	531	3,394	135	9,031
1965	679	1,320	1,832	631	199	767	3,343	145	8,916
1966	671	1,191	2,330	680	188	808	3,005	179	9,052
1967	473	1,677	2,774	753	135	783	2,521	220	9,336
1968	678	1,642	4,143	780	81	986	4,624	523	13,457
1969	403	2,416	5,326	965	115	860	4,750	771	15,606
1970	658	4,172	5,111	666	273	948	6,303	617	18,748

n.e.s.: not elsewhere specified.
Source: Dominion Bureau of Statistics.

48

Other paper and paperboard annual productive capacity	Paperboard	Wrapping paper	Book and writing paper	Tissue and sanitary paper
	'000 Tons	'000 Tons	'000 Tons	'000 Tons
1952	821	260	264	92
1953	840	265	270	107
1954	918	274	274	114
1955	923	293	283	120
1956	1,029	324	361	122
1957	1,078	386	377	138
1958	1,096	371	386	142
1959	1,139	363	392	149
1960	1,162	361	438	167
1961	1,242	365	465	167
1962	1,275	380	485	174
1963	1,333	418	492	196
1964	1,378	400	578	198
1965	1,450	384	615	234
1966	1,763	438	807	264
1967	1,745	533	767	268
1968	1,808	542	872	275
1969	1,915	588	938	308
1970	2,055	570	1,101	318
1971[1]	2,230	714	1,165	338
1972[1]	2,643	780	1,176	371
1973[1]	2,752	790	1,198	408

1. Preliminary.
Source: Canadian Pulp and Paper Association estimates.

49

Imports of paper and paperboard, and paper goods	Fine papers	Tissue and sanitary papers	Wrapping papers	Specialty papers	Building papers and boards	Other paper-boards	Paper and Paper goods
	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	$'000
1951	11	4	2	3	14	35	34,831
1952	11	4	1	2	15	32	29,921
1953	12	6	1	4	28	42	39,208
1954	15	7	4	4	32	52	43,558
1955	17	8	4	5	33	67	52,690
1956	18	9	4	6	42	78	62,217
1957	17	11	6	5	38	79	62,249
1958	20	12	9	5	37	84	65,735
1959	21	12	5	6	43	86	68,273
1960	20	11	4	5	43	81	68,910
1961	22	9	5	5	37	108	75,717
1962	22	8	3	6	33	98	80,379
1963	23	7	4	6	28	91	76,644
1964	21	7	12	8	28	84	79,255
1965	23	9	7	8	30	90	87,551
1966	25	7	5	8	32	84	97,001
1967	25	6	6	7	31	91	103,058
1968	31	10	17	10	36	94	110,239
1969	46	9	16	11	42	100	126,264
1970	46	8	11	13	29	116	127,905

Note: This table covers all imports reported in classifications used prior to 1st January 1964 as well as in subsequent classifications to date.
Source: Dominion Bureau of Statistics.

VI. National Significance

50

Pulp and paper production and the national income	Gross production of industry	Gross national product[1]
	$'000,000	$'000,000
1926	215	5,152
1930	216	5,728
1935	159	4,315
1940	298	6,743
1945	399	11,835
1950	954	18,006
1955	1,327	27,132
1956	1,453	30,585
1957[2]	1,416	31,909
1958[2]	1,398	32,894
1959[2]	1,502	34,915
1960[2]	1,583	36,287
1961[2]	1,633	37,471
1962[2]	1,716	40,575
1963[2]	1,793	43,424
1964[2]	1,984	47,393
1965[2]	2,104	52,203
1966[2]	2,298	58,104
1967[2]	2,301	65,722
1968[2]	2,447	71,388
1969[2]	2,771	78,560
1970[2]	2,685[3]	84,468[4]

1. The gross national product is the market value of all goods and services produced in Canada.
2. All principal statistics of manufactures (i.e. number of establishments, number of employees, total salaries and wages paid, cost of fuel, electricity and materials used, selling value of factory shipments and value added by manufacture or net value) shown in this publication for the years 1957 to 1960 have been revised by the Dominion Bureau of Statistics on the basis of the new Standard Industrial Classification adopted as of 1st January 1960 and of the new Establishment (reporting unit) Concept adopted as of 1st January 1961. Because of these changes, principal statistics for years prior to 1957 are not fully comparable with those for the years that follow. See also footnote 6, Table 66.
3. Canadian Pulp and Paper Association estimate.
4. Preliminary.

Source: Dominion Bureau of Statistics.

51

Pulp and paper exports and Canadian trade	Pulp & paper exports	Total domestic exports of Canada	Pulp & paper exports to total exports
	$'000	$'000	%
1919	97,168	1,253,958	7.86
1920	163,128	1,268,015	12.86
1925	154,556	1,239,554	12.47
1930	177,590	863,684	20.56
1935	121,667	724,977	16.78
1940	231,810	1,178,954	19.66
1945	309,067	3,218,330	9.60
1950	713,870	3,118,387	22.89
1955	991,543	4,281,784	23.16
1956	1,045,828	4,789,746	21.83
1957	1,043,559	4,839,094	21.56
1958	1,010,147	4,823,347	20.91
1959	1,073,485	5,060,710	21.21
1960	1,123,824	5,255,575	21.38
1961	1,151,558	5,754,986	20.00
1962	1,174,145	6,178,523	19.00
1963	1,226,130	6,798,538	18.04
1964	1,368,731	8,094,360	16.91
1965	1,442,097	8,525,078	16.92
1966	1,588,106	10,070,627	15.77
1967	1,605,539	11,111,580	14.45
1968	1,729,386	13,250,960	13.05
1969	2,014,069	14,503,638	13.89
1970	2,063,395	16,458,183	12.54

Source: Dominion Bureau of Statistics.

52

Growth of the industry	Pulp and paper mills	Total employees[1]	Total production[2]
			$'000
1871	21	760	1,072
1881	41	1,588	2,510
1891	58	2,817	3,633
1901	53	6,236	8,628
1911	72	9,766	23,226
1921	100	24,619	151,003
1931	103	26,669	174,734
1941	106	37,154	334,726
1945	109	39,996	398,805
1947	115	49,946	706,972
1949	123	52,050	836,148
1950	123	52,343	954,138
1951	126	57,291	1,237,897
1952	128	57,803	1,157,888
1953	127	58,194	1,179,665
1954	125	60,837	1,241,665
1955	125	62,205	1,326,938
1956	126	65,985	1,453,442
1957	127	66,067	1,415,821
1958	127	64,199	1,398,349
1959	126	65,162	1,502,312
1960	126	65,772	1,583,107
1961	125	65,799	1,632,834
1962	125	64,885	1,716,300
1963	126	65,049	1,793,231
1964	131	67,729	1,984,114
1965	132	69,897	2,104,425
1966	135	73,501	2,297,662
1967	137	74,136	2,301,044
1968	137	73,498	2,446,874
1969	137	75,018	2,783,004
1970[3]	140	75,169	2,685,354

1. Wood employees not included.
2. See footnote 2, Table 50, and footnote 6, Table 66.
3. Canadian Pulp and Paper Association estimate.

Source: Dominion Bureau of Statistics.

53

Principal Canadian exports	1970	1969
	$'000	$'000
Passenger automobiles and chassis	1,723,564	1,842,248
Newsprint	1,110,396	1,125,801
Motor vehicle parts, except engines	816,198	761,375
Wood pulp	785,229	753,497
Wheat	687,431	472,712
Lumber	668,907	700,641
Crude petroleum	649,075	525,780
Trucks, truck tractors and chassis	554,934	562,707
Copper and alloys	475,805	303,075
Iron ores and concentrates	475,743	333,155
Nickel and alloys	465,149	257,400
Aluminum, including alloys	460,245	475,727
Nickel in ores, concentrates and scrap	369,935	226,270
Motor vehicle engines and parts	336,622	297,310
Copper in ores, concentrates and scrap	262,794	233,732
Asbestos, unmanufactured	227,251	216,276
Fertilizers and fertilizer materials	221,221	171,927
Communication and related equipment (except television and radio sets and phonographs)	218,159	183,047
Natural gas	205,988	176,188
Aircraft parts, except engines	198,991	175,751
Motor vehicles, except passenger cars, trucks and truck tractors	186,863	149,359
Whisky	183,202	189,118
Metal fabricated basic products	142,088	89,937
Barley	133,478	30,427
Aircraft engines and parts	133,446	137,488
Plate, sheet and strip, steel	132,646	75,943
Office machines and equipment	131,650	87,466
Zinc in ores, concentrates and scrap	118,320	102,611
Meat, fresh, chilled or frozen	110,296	72,257

Source: Dominion Bureau of Statistics.

54

Capital expenditures	Capital construction	Capital machinery & equipment	Total expenditures
	$'000,000	$'000,000	$'000,000
1951	35.1	73.8	108.9
1952	29.0	86.6	115.6
1953	18.5	73.4	91.9
1954	13.8	55.2	69.0
1955	26.9	91.4	118.3
1956	79.4	160.2	239.6
1957	52.1	182.3	234.4
1958	18.1	88.7	106.8
1959	21.7	88.5	110.2
1960	27.8	113.5	141.3
1961	33.1	105.3	138.4
1962	34.5	113.3	147.8
1963	36.4	145.2	181.6
1964	64.7	229.0	293.7
1965	102.2	281.6	383.8
1966	127.2	379.2	506.4
1967	99.0	319.5	418.5
1968	58.2	182.0	240.2
1969	97.1	228.6	325.7
1970	131.1	338.2	469.3
1971	115.9	296.8	412.7

Note: 1950-1969, Actual Expenditures; 1970, Preliminary Actual; 1971, Intentions.
Source: Dominion Bureau of Statistics, Business Finance Division.

55

Ten leading Canadian manufacturing industries 1968[1]	Salaries and wages	Salaries and wages rank[2]	Employment	Employment rank[2]	Value added by manufacture	Added value rank[2]	Selling value of factory shipments	Selling value rank[4]
	$'000				$'000		$'000	
Pulp and paper mills	552,162	1	73,498	1	1,080,941	1	2,446,874	2
Motor vehicle manufacturers	349,509	2	39,113	6	760,625	2	2,935,721	1
Slaughtering and meat processors[5]	190,975	8	30,541	8	309,999	8	1,772,706	3
Petroleum refining	80,010	10	9,091	10	307,298	9	1,621,887	4
Iron and steel mills	323,573	3	44,634	4	684,684	3	1,367,087	5
Motor vehicle parts and accessories manufacturers	280,666	5	39,454	5	512,418	6	1,193,805	6
Dairy factories	160,943	9	29,841	9	290,529	10	1,184,638	7
Sawmills and planing mills	264,538	6	48,031	2	542,049	4	1,179,572	8
Miscellaneous machinery and equipment manufacturers	313,711	4	47,810	3	513,338	5	1,008,012	9
Smelting and refining	250,848	7	34,719	7	477,763	7	932,585	10

1. Latest available.
2. Rank among ten leading industries listed.
3. Covers only mill workers.
4. Rank in Canadian Manufacturing Industries as a whole.
5. New classification 1968; comprises former "Slaughtering and meat packing plants", "Animal oils and fats plants" and "Sausage and sausage casing manufacturers" industries.
Source: Dominion Bureau of Statistics.

56

Exports of Canadian products to the United States	1970	1970	1969	1969
	$'000	%	$'000	%
Live animals	55,198	0.52	45,825	0.45
Food, feed, beverages and tobacco	604,790	5.68	556,090	5.41
Crude materials, inedible	1,625,552	15.28	1,370,780	13.34
Pulpwood and pulpwood chips	*23,289*	*0.22*	*23,527*	*0.23*
Mutilated newsprint	*834*	*0.01*	*1,230*	*0.01*
Waste paper, n.e.s.	*2,443*	*0.02*	*3,234*	*0.03*
Fabricated materials, inedible	3,603,442	33.86	3,573,320	34.78
Wood pulp	*485,453*	*4.56*	*516,879*	*5.03*
Newsprint	*872,544*	*8.20*	*919,877*	*8.96*
Paperboard and building board	*9,394*	*0.09*	*10,066*	*0.10*
All other paper	*58,613*	*0.55*	*43,485*	*0.42*
End products, inedible	4,728,779	44.44	4,700,222	45.75
Paper products	*6,946*	*0.06*	*7,272*	*0.07*
Special transactions, trade	23,357	0.22	27,413	0.27
Total exports	**10,641,119**	**100.00**	**10,273,650**	**100.00**
Total pulp, paper, paper products and pulpwood[1]	**1,459,516**	**13.71**	**1,525,570**	**14.85**

1. Details for 1970 are given in Table 11.
Source: Dominion Bureau of Statistics.

57

Principal statistics by provinces, 1969	Mills	Employees[1]	Salaries and wages[1]	Cost of fuel and electricity	Cost of materials used	Selling value of factory shipments	Value added by manufacture
			$'000	$'000	$'000	$'000	$'000
Newfoundland	2	2,747	24,904	5,872	32,507	74,361	35,041
Nova Scotia	6	2,080	15,964	4,130	34,762	78,561	39,797
New Brunswick	9	4,743	35,563	15,951	99,048	178,355	63,550
Quebec	56	29,159	231,048	78,138	473,158	993,924	445,044
Ontario	36	21,503	168,770	48,812	329,669	715,966	340,195
Manitoba, Saskatchewan and Alberta	9	1,627	13,435	5,085	34,081	78,293	37,773
British Columbia	20	13,568	121,907	40,553	311,037	651,816	298,011
Total	**138**	**75,427**	**611,591**	**198,541**	**1,314,262**	**2,771,276**	**1,259,411**

1. Woods employees not included.
Source: Dominion Bureau of Statistics.

58

Canadian consumption of paper and paperboard	Newsprint	Paperboard	Wrapping paper	Fine paper[1]	Tissue paper	Sanitary paper	Building boards	Building papers	Other paper & boards	Total
	Lbs.p.cap.	Lbs.p.cap.	Lbs.p.cap.	Lbs.p.cap.	Lbs.p.cap.	Lbs.p.cap.	Lbs.p.cap.	Lbs.p.cap.	Lbs.p.cap.	Lbs.p.cap.
1951	51.4	112.5	34.8	32.2	2.2	10.7	16.9	12.4	3.6	276.8
1952	51.0	100.3	29.1	27.1	1.6	9.5	16.0	11.7	3.0	249.3
1953	53.7	112.1	31.1	29.2	1.7	10.6	18.4	12.4	3.1	272.2
1954	55.1	107.7	31.5	30.4	1.8	11.2	18.3	11.6	2.8	270.4
1955	54.8	112.2	31.8	31.0	2.4	11.7	17.0	12.9	2.9	276.7
1956	59.3	121.6	34.5	34.3	2.7	12.9	22.5	12.1	2.9	302.8
1957	55.0	112.7	31.8	33.1	2.5	13.1	20.5	10.4	2.7	281.7
1958	50.9	119.2	31.6	32.9	2.5	13.7	23.7	11.0	2.3	287.7
1959	54.1	121.0	33.6	35.3	2.9	14.1	24.0	10.0	2.4	297.3
1960	54.5	117.2	32.8	34.9	2.5	14.0	24.3	8.6	2.0	290.8
1961	53.9	115.6	31.8	35.2	2.3	15.2	24.4	8.2	2.3	288.9
1962	54.9	122.5	32.1	35.9	2.5	15.4	22.4	9.5	2.4	297.6
1963	55.2	127.2	33.6	37.6	2.5	18.2	22.0	9.1	2.1	307.5
1964	57.1	137.7	34.3	40.6	2.6	17.1	28.2	8.8	2.2	328.6
1965	60.1	147.7	35.7	42.8	2.8	16.8	26.8	7.8	2.4	342.9
1966	62.0	151.7	38.8	46.6	2.7	15.0	26.3	7.7	2.1	352.9
1967	62.5	151.7	36.2	51.1	1.9	18.7	28.9	7.6	2.3	360.9
1968	65.1	152.2	36.1	51.6	2.5	21.4	36.1	7.1	3.2	375.3
1969	67.4	165.0	40.2	53.4	2.7	21.6	36.0	7.0	3.5	396.8
1970[2]	65.9	149.2	34.2	59.1	2.8	21.5	31.8	6.2	3.3	374.0

Note: These figures do not include tonnages imported as converted paper products, such as books, magazines, advertising matter, packages, etc.
1. Excluding coated paper.
2. Preliminary estimates.
Sources: Dominion Bureau of Statistics and Canadian Pulp and Paper Association.

59

Growth rates of the pulp and paper industry, the total economy and selected groups of industries

	Real domestic product	Total goods	Total manu-facturing	Pulp and paper	Foods and beverages	Textiles	Trans-portation equipment	Chemicals and allied products	Electrical apparatus and supplies	Construction	Total services
1961 weights	*100.0*	*43.8*	*24.7*	*2.2*	*3.6*	*0.9*	*2.0*	*1.7*	*1.6*	*5.8*	*56.2*
1950	62.4	62.6	63.4	72.7	63.7	72.9	83.4	40.1	53.5	56.0	66.2
1951	67.3	68.6	68.9	79.4	65.9	74.5	100.8	46.0	57.4	56.5	65.8
1952	72.5	74.5	71.5	76.0	70.2	67.7	115.5	50.2	59.2	64.1	70.0
1953	75.5	77.4	76.6	79.1	72.2	72.0	130.3	55.0	71.7	71.9	73.3
1954	74.3	73.9	74.9	82.2	74.8	64.9	106.7	59.1	72.1	73.7	74.7
1955	82.1	83.7	82.2	85.0	77.8	77.8	114.1	68.1	83.1	81.9	80.2
1956	89.1	91.9	89.9	91.6	82.4	80.6	123.0	79.7	93.9	92.2	85.7
1957	89.5	91.0	89.7	88.7	85.7	81.3	120.4	81.5	87.2	100.2	87.7
1958	91.0	92.4	88.0	86.9	89.8	78.5	105.9	82.3	85.3	103.7	89.4
1959	95.7	96.8	94.5	94.3	94.2	88.8	104.9	90.2	90.6	98.7	94.4
1960	98.0	99.0	96.1	100.0	96.1	91.5	101.4	94.1	94.0	97.0	96.6
1961	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1962	106.2	109.3	109.0	97.8	106.4	111.2	115.9	109.1	119.4	105.6	105.1
1963	111.6	116.1	116.2	101.6	110.5	120.7	133.1	115.6	130.5	107.1	110.0
1964	120.2	124.8	127.4	110.1	117.8	133.3	145.8	133.0	146.4	117.4	116.9
1965	129.0	134.8	138.8	112.8	123.1	139.0	179.6	144.9	162.9	131.6	124.4
1966	137.6	144.9	148.7	120.1	128.9	141.1	196.9	157.5	185.3	141.7	132.5
1967	143.5	145.5	152.3	113.6	136.0	146.2	228.6	163.9	187.9	141.2	140.0
1968	150.5	154.0	161.1	120.5	139.5	158.5	257.1	175.2	194.6	150.6	145.6
1969	157.4	160.2	168.4	129.9	142.6	166.1	278.1	186.1	210.1	154.2	153.1
1970	160.7	161.9	167.3	125.4	148.3	161.0	245.4	193.0	198.7	149.8	159.8

Source: Dominion Bureau of Statistics. Compiled from "Indexes of Real Domestic Product by industry—(1961 base)", prepared in National Output and Productivity Division, Industrial Output Section.

60

Employees and wages	Total employees	Total salaries & wages
		$'000
1951	57,291	213,170
1952	57,803	225,353
1953	58,194	235,742
1954	60,837	252,598
1955	62,205	265,298
1956	65,985	297,572
1957[1]	66,067	307,990
1958[1]	64,199	307,872
1959[1]	65,162	322,936
1960[1]	65,772	345,093
1961[1]	65,799	355,171
1962[1]	64,885	355,245
1963[1]	65,049	364,513
1964[1]	67,729	394,136
1965[1]	69,897	423,732
1966[1]	73,501	486,249
1967[1]	74,136	516,724
1968[1]	73,498	552,162
1969[1]	75,427	611,591
1970[1,2]	75,169	633,896

Note: Woods employees not included.
1. See footnote 2, table 50.
2. Canadian Pulp and Paper Association estimates.
Source: Dominion Bureau of Statistics.

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Capital and employees	Capital employed	Employees[2]	Capital employed per employee
	$'000		$'000
1951	1,547,826	57,291	27,013
1952	1,707,042	57,803	29,532
1953	1,821,501	58,194	31,300
1954	1,899,438	60,837	31,222
1955	2,036,354	62,205	32,736
1956	2,315,309	65,985	35,088
1957	2,615,014	66,067	39,279
1958	2,841,489	64,199	44,103
1959	2,966,011	65,162	45,517
1960	3,134,693	65,772	47,658
1961	3,275,064	65,799	49,774
1962	3,398,217	64,885	52,371
1963	3,618,006	65,049	55,620
1964	3,965,226	67,729	58,545
1965	4,576,329	69,897	65,471
1966	5,186,020	73,501	70,557
1967	5,538,350	74,136	74,704
1968	5,807,786	73,498	78,881
1969	6,256,638	75,427	82,950
1970[1]	6,876,952	75,169	91,486

1. Preliminary.
2. Woods employees are not included.
Source: Canadian Pulp and Paper Association estimates based on data compiled by the Dominion Bureau of Statistics, Business Finance Division, on "Fixed Capital Flows and Stocks, Manufacturing, Canada 1926-1960" and supplements. Estimates for years prior to 1968 revised on the basis of revision of building and engineering construction price indexes.

62

Payrolls and weekly earnings in important industries	Year	Average number of employees	Average weekly payrolls	Average weekly earnings
			$	$
Pulp and paper mills	1969	75,018	11,490,737	153.17
	1970	75,169	12,190,313	162.17
Electrical products	1969	129,271	16,201,916	125.33
	1970	124,180	16,713,891	134.59
Motor vehicles	1969	90,513	13,419,663	148.26
	1970	82,020	13,218,805	161.16
Chemical products	1969	71,759	9,991,139	139.23
	1970	71,853	10,775,618	149.97
Smelting and refining	1969	31,673	4,769,517	150.59
	1970	35,099	5,682,666	161.90
Aircraft and parts	1969	34,349	5,196,858	151.29
	1970	30,657	4,851,103	158.24
Iron and steel mills	1969	43,511	6,436,912	147.94
	1970	47,454	7,774,185	163.82
Slaughtering and meat processing	1969	27,706	3,456,195	124.74
	1970	27,785	3,793,941	136.54
Rubber products	1969	26,782	3,426,986	127.96
	1970	24,290	3,326,519	136.95
Shipbuilding and repairing	1969	15,514	2,088,142	134.59
	1970	13,341	1,915,416	143.57

Note: Compiled from monthly returns received from establishments employing 15 persons or more. Pulp and paper mills payrolls do not include woods workers.
Source: Dominion Bureau of Statistics, Employment Section.

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Operations and mills 1970	Producing companies	Producing mills
Groundwood	28	56
Mechanical screenings	7	8
Dissolving and special alpha (sulphite and sulphate)	2	4
Bleached sulphite (paper pulp)	9	11
Unbleached sulphite (strong)	8	9
Unbleached sulphite (news grade)	14	29
Sulphate pulp, bleached and semi-bleached	26	32
Sulphate unbleached	18	25
Chemical screenings	9	16
Semi-chemical pulp	7	13
Defibrated and exploded pulps	5	7
Newsprint	22	44
Groundwood and specialty papers	7	11
Book paper	6	15
Fine papers	8	15
Miscellaneous fine papers	5	10
Tissue paper other than sanitary	7	8
Sanitary papers	8	11
Special industrial papers	3	6
Wrapping papers	14	20
Building papers	10	14
Paperboards	22	45
Building boards	8	12
Wet machine boards	3	3
Paper products	13	22

Sources: Canadian Pulp and Paper Association and Dominion Bureau of Statistics.

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Principal statistics of the paper converting industries	1969	1968
Number of establishments	502	498
Number of employees	40,766	40,078
	$'000	$'000
Salaries and wages paid	256,663	229,409
Cost of fuel and electricity	9,655	8,658
Cost of materials used	606,375	570,813
Selling value of factory shipments	1,062,538	975,141
Value added by manufacture	477,055	416,701

Note: These figures cover only converted paper products produced in the Folding Boxes and Set-up Boxes, Corrugated Boxes, Paper Bag, Miscellaneous Paper, and Asphalt Roofing industries. In addition, some 20 paper-mills have converting plants whose operations are included in the Pulp and Paper industry, and there are also several plants in the Printing Trades and other industries which make paper boxes and other converted paper commodities as secondary products.
Source: Dominion Bureau of Statistics.

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Car loadings	1970	1970	1969	1969
	Cars	Tons	Cars	Tons
Forest Products	757,148	32,094,304	806,922	33,121,648
Pulp and paper	*278,563*	*12,078,301*	*304,189*	*12,492,187*
Pulpwood (roundwood and chips)	*176,936*	*8,263,418*	*179,268*	*8,556,895*
Other forest products	*301,649*	*11,752,585*	*323,465*	*12,072,566*
Agricultural Products	540,469	28,329,119	415,771	20,613,444
Wheat and other grain	*429,985*	*24,508,703*	*297,433*	*16,630,412*
Grain products	*59,028*	*2,021,049*	*60,840*	*2,025,236*
Other agricultural products, fresh and frozen	*51,456*	*1,799,367*	*57,498*	*1,957,796*
Animal Products	36,032	686,606	39,591	712,546
Mineral Products	1,906,114	131,719,486	1,723,423	113,699,663
Coal and coke	*173,503*	*11,576,009*	*133,873*	*8,125,580*
Potash, sulphur, crude gypsum and asbestos, phosphate and salt	*192,512*	*15,214,812*	*187,446*	*14,816,766*
Sand, gravel, crushed stone, natural and portland cement, and other mine products	*191,972*	*13,043,407*	*179,512*	*12,060,734*
Iron and non-ferrous ores and concentrates	*760,421*	*64,027,588*	*605,955*	*50,743,435*
Gasoline, fuel oil, liquified petroleum gas and other refined petroleum products	*222,093*	*11,018,741*	*220,068*	*10,466,501*
Sulphuric acid, salt cake, gases other than petroleum, and other chemicals and acids	*74,275*	*4,699,115*	*74,843*	*4,738,889*
Primary and manufactured iron and steel and non-ferrous metals and scrap, and waste metals	*172,471*	*9,525,336*	*175,764*	*9,608,186*
Passenger and freight automobiles and other motor vehicles and parts, agricultural implements and parts and machinery and parts,	*118,867*	*2,614,478*	*145,962*	*3,139,572*
Other Products	299,392	9,583,242	320,708	10,325,893
Building materials	*40,559*	*1,423,086*	*43,237*	*1,585,325*
Sugar, beverages, vegetable oils, dairy and other food products	*75,348*	*2,546,694*	*77,886*	*2,546,277*
Animal and poultry feed	*21,102*	*774,475*	*21,203*	*739,168*
Plastic and cellulose products	*8,499*	*176,344*	*8,647*	*166,233*
Fertilizers (excluding potash)	*32,365*	*1,761,141*	*36,709*	*1,960,148*
Manufactured and miscellaneous goods	*121,519*	*2,901,502*	*132,926*	*3,328,722*
Pool car traffic (freight forwarder and shipper association traffic)	78,945	1,219,910	81,080	1,128,125
Container and trailer-on-flat-car traffic ("piggyback")	111,675	2,280,178	114,214	2,146,989
Total carload traffic loaded	3,729,775	205,912,845	3,501,709	181,748,308
Non-carload (l.c.l., express, etc.) traffic loaded		1,281,050		1,521,473
Receipts from United States connections	662,502	28,671,128	665,882	28,188,331
Total traffic carried (excluding duplications)		235,865,023		211,458,112

Source: Compiled by C.P.P.A. from D.B.S. "Railway carloadings" report.

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Summary of shipments of goods of own manufacture	Wood pulp	Newsprint	Other basic paper and paperboard	Building boards[1]	Converted paper products[2]	Other products[3]	By-products[4]	Amount received for work done[5]	Total value of shipments & work done[6]
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$,000
1956	366,819	734,426	288,409	25,582	32,217	1,413	2,624	1,952	1,453,442
1957	334,962	724,613	286,061	25,275	35,074	1,360	2,557	2,032	1,411,934
1958	325,587	694,067	300,520	27,081	41,162	1,901	2,609	1,752	1,394,679
1959	360,294	732,849	323,363	30,849	44,310	1,433	3,176	1,768	1,498,042
1960	368,598	793,470	334,401	28,846	47,492	1,028	2,923	1,969	1,578,727
1961	392,655	804,641	352,964	29,237	48,684	1,343	6,409	2,049	1,637,982
1962	436,920	819,079	371,419	33,218	52,626	5,910	8,270	1,840	1,729,282
1963	479,040	809,247	401,667	34,598	54,708	7,418	10,175	1,548	1,789,401
1964	548,505	887,612	431,398	37,405	54,351	17,262	11,168	2,173	1,989,874
1965	592,238	927,832	462,078	39,119	56,248	20,676	12,417	2,188	2,112,796
1966	630,154	1,025,048	519,528	35,257	57,449	22,112	13,714	3,175	2,306,436
1967	630,604	998,020	544,706	36,604	60,971	23,667	13,800	1,401	2,309,773
1968	719,397	1,015,794	558,821	41,430	76,768	37,258	15,560	1,115	2,466,143
1969	862,098	1,114,707	618,444	48,263	91,270	37,635	18,649	296	2,791,362

1. Rigid insulating (homogeneous or laminated) softboard for all purposes and all types of hardboard, as reported by establishments classified as pulp and paper mills.
2. Such as packaged toilet paper, paper towels and napkins, paper bags, gummed tape, etc.
3. Not made from wood pulp, paper or paperboard.
4. Such as newsprint and kraft side-runs, vanillin, acid liquors, steam sold, etc.
5. On materials and products owned by others.
6. Unadjusted value of shipments and work done, representing the sum of the items shown.

Since 1957 questions covering value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items, as required, have been added to Census of Industry questionnaires; the answers have resulted in the adjusted values shown in Table 50 (*q.v.*) and elsewhere. The unadjusted values are more comparable to the values shown for production prior to 1956, which obviously comprised similar undeducted taxes, duties and charges.
Source: Dominion Bureau of Statistics.

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Price indices for selected commodities

	1961 = 100					
	Fine paper writing & reproduction (domestic)	Container board liner board (domestic)	Bleached sulphite wood pulp (export)	Bleached sulphate wood pulp (export)	Unbleached sulphate wood pulp (export)	Newsprint (white) in rolls (export)
1956	89.3	100.6	112.0	104.5	103.2	95.4
1961	100.0	100.0	100.0	100.0	100.0	100.0
1962	100.0	100.0	103.0	101.4	101.5	105.9
1963	100.7	100.1	102.4	101.0	106.0	107.0
1964	103.2	101.0	108.2	106.2	114.3	106.8
1965	104.1	101.0	112.2	111.1	113.9	106.7
1966	108.8	100.4	112.1	109.1	114.6	109.4
1967	114.5	101.2	112.2	108.0	115.3	112.7
1968	113.0	101.5	111.5	103.7	112.0	113.4
1969	117.8	103.0	114.3	109.6	115.7	117.2
1970	120.2	103.9	125.4	119.7	131.9	116.8

Source: Dominion Bureau of Statistics.

VII. World Figures

68

World production and consumption of wood pulp	Production 1950	Production 1960	Production 1969	Consumption 1950	Consumption 1960	Consumption 1969
	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons
North America	23,322	36,747	59,075	23,801	35,473	55,256
Canada	*8,473*	*11,431*	*18,084*	*6,663*	*8,918*	*12,328*
United States	*14,849*	*25,316*	*40,991*	*17,138*	*26,555*	*42,928*
Western Europe	9,876	17,242	26,874	8,920	17,481	28,571
Austria	*421*	*777*	*982*	*301*	*585*	*904*
Belgium	*86*	*170*	*369*	*256*	*333*	*654*
Denmark	*1*	*6*	*96*	*82*	*123*	*149*
Finland	*2,109*	*4,078*	*6,942*	*945*	*2,329*	*4,520*
France	*551*	*1,254*	*1,892*	*1,082*	*1,981*	*3,086*
Germany (West)	*1,008*	*1,584*	*1,843*	*1,250*	*2,334*	*3,458*
Greece	[1]	[1]	[1]	*32*	*62*	*103*
Ireland	[1]	*24*	*39*	*24*	*53*	*69*
Italy	*287*	*497*	*1,051*	*547*	*1,186*	*2,578*
Netherlands	*100*	*137*	*263*	*263*	*543*	*1,058*
Norway	*1,183*	*1,814*	*2,460*	*603*	*981*	*1,600*
Portugal	*7*	*94*	*423*	*20*	*102*	*126*
Spain	*28*	*166*	*579*	*91*	*280*	*899*
Sweden	*3,801*	*6,173*	*9,185*	*1,497*	*2,954*	*5,136*
Switzerland	*157*	*262*	*284*	*187*	*370*	*482*
United Kingdom	*137*	*206*	*466*	*1,740*	*3,265*	*3,749*
Latin America (except Cuba)	264	845	1,570	582	1,178	2,057
Argentina	*17*[2]	*48*	*174*	*98*	*137*	*356*
Brazil	*153*[2]	*498*	*589*	*298*	*605*	*631*
Chile	*17*	*112*	*384*	*42*	*127*	*268*
Colombia	[1]	[1]	*109*	*3*	*31*	*169*
Mexico	*77*	*187*	*314*	*133*	*241*	*455*
Peru	[1]	[1]	[1]	[1]	[3]	*29*
Uruguay	[1]	[1]	[1]	[1]	[3]	*11*
Venezuela	[1]	[1]	[1]	*8*	*37*	*138*
Africa, Middle East, other Asia (except China), Oceania	1,004	4,863	10,870	1,140	5,167	12,179
Morocco	[1]	[1]	*45*	[1]	[3]	*22*
Republic of South Africa	*36*	*262*	*716*	*38*	*190*	*477*
Swaziland	[3]	[3]	*108*	[3]	[3]	*5*
United Arab Republic, Egypt	[1]	[1]	[1]	*6*	*32*	*40*
Israel	[1]	[1]	[1]	[1]	[3]	*57*
Turkey	*13*	*46*	*87*	*17*	*55*	*99*
India	[1]	*20*	*30*	*9*	*108*	*128*
Japan	*825*	*3,884*	*8,465*	*894*	*4,014*	*9,396*
Korea	[1]	[1]	*72*	[1]	[3]	*263*
Pakistan	[1]	*26*	*71*	[1]	*29*	*92*
Philippines	[1]	[1]	[1]	[1]	[3]	*34*
South Viet Nam	[1]	[1]	[1]	[1]	[3]	*13*
Taiwan	[1]	*16*	*84*	[1]	*28*	*118*
Australia	*103*	*315*	*573*	*139*	*481*	*843*
New Zealand	*27*	*294*	*619*	*37*	*230*	*545*
All others	[1]	[1]	[1]	[1]	[3]	*57*
Sub total	**34,466**	**59,697**	**98,389**	**34,443**	**59,299**	**98,063**
Other countries[2]						
Bulgaria	*6*	[3]	*104*	*45*	[3]	*170*
China	[3]	[3]	*540*	*25*	[3]	*690*
Cuba	[1]	[1]	[1]	*22*	[3]	*50*
Czechoslovakia	*386*	[3]	*724*	*342*	[3]	*770*
Germany (East)	*607*	[3]	*736*	*596*	[3]	*890*
Hungary	*7*	[3]	*83*	*29*	[3]	*163*
Poland	*275*	[3]	*762*	*350*	[3]	*824*
Romania	*110*	[3]	*479*	*98*	[3]	*482*
U.S.S.R.	*2,255*	[3]	*6,830*	*2,348*	[3]	*6,679*
Yugoslavia	*50*	*230*	*557*	*55*	*216*	*558*
Sub total	**3,696**	**6,930**	**10,815**	**3,910**	**6,763**	**11,276**
Total	**38,162**	**66,627**	**109,204**	**38,353**	**66,062**	**109,339**

1. Nil.
2. Estimated.
3. Not available.
Sources: Canadian Pulp and Paper Association and American Paper Institute — Pulp Division.

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World production of wood pulp, by grades	1950	1960	1969
	'000 Tons	'000 Tons	'000 Tons
America, Western Europe, Asia (except China), Africa, Oceania	**34,466** [2]	**59,697**	**98,389**
Chemical wood pulp	20,841	37,962	*65,619*
Dissolving and special alpha	*1,756*	*3,447*	*4,473*
Sulphite	*7,737*	*10,340*	*10,962*
Sulphate	*10,642*	*23,566*	*49,920*
Soda	*350* [1]	*609*	*264*
Semi-chemical wood pulp	1,331 [1]	2,736	6,260
Mechanical wood pulp	12,227	18,828	26,141
Screenings	n.a.	171	369
Eastern Europe, U.S.S.R. and China	**3,696**	**6,930**	**10,815**
Chemical wood pulp	2,245	4,684	8,110
Other grades	1,451	2,246	2,705
World	**38,162**	**66,627**	**109,204**
Chemical wood pulp	23,086	42,646	73,729
Other Grades	15,076	23,981	35,475

1. Estimated.
2. The sum of the figures shown for 1950 for the various grades of chemical wood pulp does not equal the total figure of 20,841,000 tons because some countries did not provide a breakdown of grades at that time.

Sources: Canadian Pulp and Paper Association and American Paper Institute — Pulp Division

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World exports of wood pulp, by countries	1950	1960	1969
	'000 Tons	'000 Tons	'000 Tons
North America			
Canada	*1,846*	*2,576*	*5,794*
United States	*96*	*1,142*	*2,104*
Western Europe			
Austria	*115*	*224*	*160*
Belgium	*4*	*7*	*110*
Denmark	[1]	[1]	*74*
Finland	*1,142*	*1,749*	*2,422*
France	*2*	*63*	*160*
Germany (West)	*60*	*100*	*93*
Ireland	[1]	[1]	*7*
Italy	[1]	*4*	*3*
Netherlands	*2*	[1]	*12*
Norway	*602*	*881*	*1,055*
Portugal	[2]	*48*	*334*
Spain	[2]	[1]	*22*
Sweden	*2,306*	*3,230*	*4,063*
Switzerland	*15*	*22*	*16*
Latin America			
Brazil	[1]	[3]	*19*
Chile	[1]	*15*	*121*
Africa, Asia (except China), Oceania			
Morocco	[1]	[1]	*41*
Republic of South Africa	[1]	*82*	*284*
Swaziland	[5]	[5]	*113*
Japan	[1]	*22*	*13*
Australia	[1]	*1*	*1*
New Zealand	*1*	*78*	*88*
Sub total	**6,191**	**10,244**	**17,109**
Other countries			
Bulgaria	[1]	[1]	*23* [4]
Czechoslovakia	*39*	*49*	*45* [4]
Germany (East)	[2]	[2]	[2]
Hungary	[1]	[1]	*17* [4]
Romania	[2]	[2]	*46* [4]
Poland	[2]	[3]	*8* [4]
U.S.S.R.	*75*	*269*	*426*
Yugoslavia	[1]	*43*	*68*
Sub total	**114**	**364**	**613**
Total	**6,305**	**10,608**	**17,722**

1. Nil.
2. Not available.
3. Negligible amount.
4. Estimated.
5. With Republic of South Africa.

Sources: Canadian Pulp and Paper Association and American Paper Institute — Pulp Divison, except some estimates for Other Countries based on F.A.O. data.

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World forestry data	Area of productive forest [1] 1963	Growing stock conifers [2] 1963	Growing stock non-conifers [2] 1963	Roundwood production [3] average 1965-68 industrial	Roundwood production [3] average 1965-68 fuelwood
	acres	billion cu.ft.	billion cu.ft.	'000,000 cu.ft.	'000,000 cu.ft.
Canada	554	671	176	3,678	187
United States	474	494	212	10,587	934
Central America	126	7	21	326	1,156
South America	741	18	2,720	1,228	6,714
Africa	692	4	131	1,090	7,314
Europe	299	268	152	8,430	2,759
U.S.S.R.	1,730	2,331	459	9,905	3,467
Asia	815	212	388	4,866	8,714
Pacific Area	119	14	120	653	288
Total	**5,550**	**4,019**	**4,379**	**40,763**	**31,533**

1. Excludes unstocked and unclassified forest lands and protection forests.
2. Covers 55% forest area. Covers most of the coniferous but only a small part of the non-coniferous forest area. Includes bark.
3. Does not include bark.

Source: FAO Yearbooks of Forest Products Statistics, 1967, 1968 and 1969, as reported by Forestry Economics Research Institute, Department of Fisheries and Forestry.

World production and consumption of newsprint	Production 1950	Production 1960	Production 1969	Consumption 1950	Consumption 1960	Consumption 1969
	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons	'000 Tons
North America	6,293	8,777	11,990	6,285	7,867	10,534
Canada	*5,279*	*6,739*	*8,758*	*355*	*487*	*708*
United States	*1,015*	*2,038*	*3,232*	*5,930*	*7,379*	*9,826*
Western Europe	2,533	4,133	5,556	1,890	4,013	5,537
Austria	*79*	*152*	*178*	*30*	*52*	*85*
Belgium and Luxembourg	*68*	*104*	*92*	*86*	*131*	*190*
Denmark	[1]	[1]	[1]	*60*	*98*	*146*
Finland	*460*	*744*	*1,212*	*40*	*87*	*106*
France	*327*	*485*	*472*	*312*	*548*	*627*
Greece	[1]	*1*	[1]	*16*	*24*	*26*
Germany (West)	*187*	*254*	*361*	*230*	*588*	*1,125*
Ireland	[1]	*5*	*6*	*29*	*39*	*59*
Italy	*95*	*325*	*335*	*97*	*331*	*275*
Netherlands	*95*	*160*	*195*	*79*	*190*	*366*
Norway	*175*	*247*	*563*	*30*	*53*	*79*
Portugal	*3*	*18*	*3*	*12*	*26*	*40*
Spain	*25*	*66*	*150*	*28*	*74*	*210*
Sweden	*358*	*641*	*964*	*138*	*211*	*314*
Switzerland	*52*	*99*	*149*	*51*	*95*	*166*
United Kingdom	*609*	*831*	*876*	*650*	*1,464*	*1,719*
Other countries	[1]	[1]	[1]	*1*	*2*	*4*
Latin America (except Cuba)	52	140	290	382	662	1,164
Argentina	*1*	*11*	*2*	*110*	*159*	*332*
Brazil	*34*	*59*	*125*	*96*	*204*	*275*
Chile	*12*	*57*	*129*	*33*	*30*	*50*
Colombia	[1]	[1]	[1]	*21*	*36*	*55*
Mexico	[1]	*13*	*34*	*44*	*110*	*181*
Peru	*4*	[1]	[1]	*14*	*20*	*53*
Venezuela	[1]	[1]	[1]	*12*	*26*	*80*
Other countries	[1]	[1]	[1]	*53*	*78*	*138*
Africa, Middle East, other Asia (except China), Oceania	191	1,113	2,549	597	1,780	3,592
Republic of South Africa	[1]	[1]	*123*	*43*	*84*	*169*
United Arab Republic, Egypt	[1]	[1]	[1]	*15*	*25*	*27*
Rhodesia	[1]	[1]	*8*	*2*	*7*	*8*
Israel	[1]	*5*	*6*	*2*	*7*	*30*
Turkey	*5*	*11*	*13*	*12*	*23*	*84*
Cambodia	[1]	[1]	*1*	[3]	[3]	*2*
Hong Kong	[1]	[1]	[1]	*8*	*22*	*47*
India	[1]	*25*	*39*	*68*	*106*	*192*
Indonesia	[1]	[1]	[3]	*7*	*22*	*34*
Japan	*145*	*810*	*1,779*	*139*	*804*	*1,954*
Korea	*2*	*30*	*102*	*8*	*47*	*115*
Pakistan	[1]	*24*	*44*	*6*	*22*	*41*
Philippines	[1]	[1]	[1]	*21*	*39*	*78*
Thailand	[1]	[1]	[1]	*3*	*20*	*47*
Taiwan	*4*	*13*	*23*	*6*	*11*	*30*
Australia	*35*	*100*	*182*	*186*	*372*	*476*
New Zealand	[1]	*95*	*229*	*31*	*76*	*97*
Other countries	[1]	[1]	[1]	*40*	*95*	*161*
Sub total	**9,068**	**14,163**	**20,385**	**9,153**	**14,321**	**20,827**
Other countries (estimates)						
Bulgaria	[1]	[1]	[1]	*8*	*14*	*39*
Cuba	[1]	*16*	[1]	*31*	*45*	*22*
Czechoslovakia	*34*	*37*	*104*	*22*	*31*	*63*
Germany (East)	*68*	*98*	*110*	*64*	*94*	*130*
Hungary	*10*	[1]	[1]	*20*	*24*	*43*
Poland	*65*	*85*	*96*	*65*	*60*	*93*
Romania	*33*	*49*	*58*	*33*	*45*	*63*
U.S.S.R.	*257*	*478*	*1,158*	*239*	*391*	*962*
Yugoslavia	[1]	*31*	*76*	*13*	*41*	*63*
China	[2]	[2]	[2]	[2]	[2]	[2]
Sub total	**467**	**794**	**1,602**	**495**	**745**	**1,477**
Total	**9,535**	**14,957**	**21,987**	**9,648**	**15,065**	**22,304**

1. Nil.
2. Not available.
3. Less than 500 tons.

Source: Annual World Surveys compiled by the Newsprint Division, Canadian Pulp and Paper Association.

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World exports of newsprint	1950	1960	1969
	'000 Tons	'000 Tons	'000 Tons
North America			
Canada	*4,956*	*6,265*	*8,033*
United States	*44*	*135*	*127*
Western Europe			
Austria	*48*	*100*	*94*
Belgium and Luxembourg	*6*	*46*	*16*
Finland	*416*	*660*	*1,108*
France	*19*	*28*	*5*
Germany (West)		[1]	*35*
Italy	*7*	*9*	*70*
Netherlands	*25*	*47*	*43*
Norway	*148*	*192*	*471*
Portugal		*1*	[1]
Sweden	*226*	*436*	*659*
Switzerland	*2*	*4*	[1]
United Kingdom	*114*	*56*	*2*
Latin America			
Argentina			*1*
Chile		*32*	*79*
Africa:			
Rhodesia			[2]
Asia (except China)			
Japan	*7*	*7*	*4*
Pakistan		*3*	*3*
Taiwan		*2*	[1]
Oceania			
Australia		[1]	[1]
New Zealand		*55*	*133*
Sub total	**6,017**	**8,078**	**10,882**
Other countries (estimates)			
Czechoslovakia	*12*	*9*	*48*
Germany (East)	*4*	*14*	*15*
Poland	*3*	*25*	*10*
Romania		*3*	*5*
U.S.S.R.	*19*	*104*	*273*
Yugoslavia			*15*
China	[2]	[2]	[2]
Sub total	**38**	**155**	**366**
Total	**6,054**	**8,233**	**11,248**

1. Less than 500 tons.
2. Not available.
Source: Annual World Surveys compiled by the Newsprint Division, Canadian Pulp and Paper Association.

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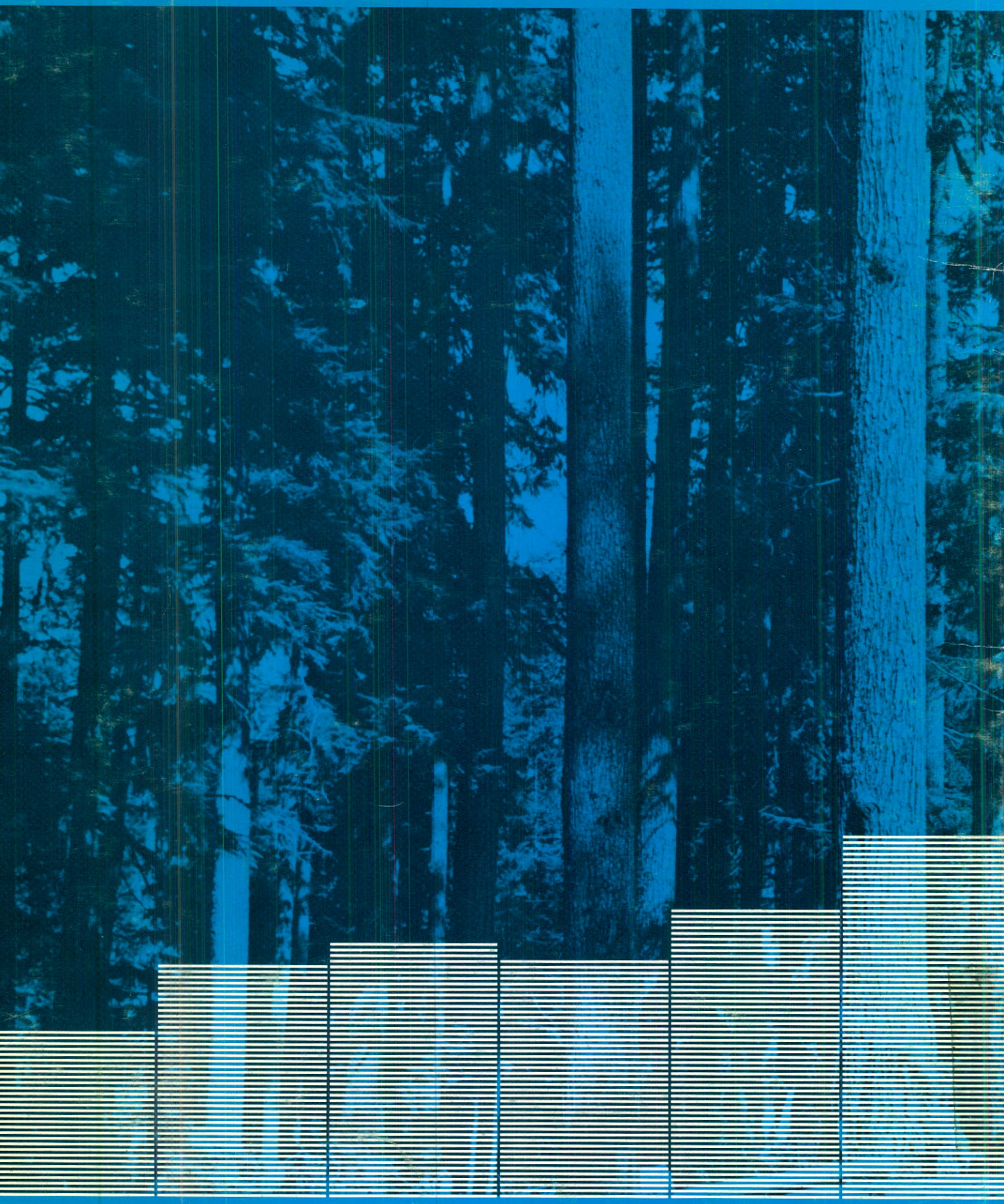
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