CANADA

DEPARTMENT OF TRADE AND COMMERCE

DOMINION BUREAU OF STATISTICS

CENSUS OF INDUSTRY

REPORT
on the
BREAD & OTHER BAKERY PRODUCTS
in
CANADA
1924

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NOTE.- The statistics published in the present statement include only the statistics of such manufacturing establishments as make Bread, Pastry etc., as their principal product. The statistics relating to specific products are therefore not to be regarded as comprehensive as products like, bread, buns, pies, cakes and puddings are also found as secondary products of other industries such as Biscuits and confectionery.

(See summary table, page 2.)

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THE BREAD AND BAKERY PRODUCTS INDUSTRY IN CANADA, 1924

Ottawa, March 1926. The annual report on the Baking Industry in Canada for the calendar year 1924 is herewith presented. This report is distinct from the Biscuit and Confectionery industry and yet similar items of production appear in both reports so that in order that a complete and comprehensive survey of the industry may be obtained a study of both reports will be found necessary. A subsequent paragraph under the head of "Production" deals specifically with this feature.

The number of individual establishments reporting to the Bureau during the year was 2,073, an increase of 93 over the previous year as will be seen from the following table showing the location of the various plants by provinces for the calendar year 1923 and 1924.

Location of Plants by provinces, 1923 and 1924.

Province	1923	1924	+ Increase and - Decrease
Prince Edward Island	7	5	- 2
Nova Scotia	49	49	-
New Brunswick	49	46	- 3
Quebec	611	662	+ 51
Ontario	831	848	+ 17
Manitoba	102	96	- 6
Saskatchewan	103	101	- 2
Alberta	112	113	+ 1
British Columbia and Yukon	116	153	+ 37
Totals for Canada	1,980	2,073	+ 93

Comparative Statistics

Comparative statistics of the industry are shown by principal items in the following summary table for the calendar years 1923 and 1924 for the Dominion and the provinces. The number of establishments reporting for the whole of Canada increased by 4.70 per cent, capital investment by 14.27 per cent, the number of persons employed by 9.27 per cent, salaries and wages paid by 10.19 per cent, the cost of materials by 15.75 per cent, and the value of products by 11.35 per cent. The provinces showing increases in all items of the table were in order, Quebec, Ontario, Br. Columbia and Alberta, whilst the remaining provinces show decreases in respect to one or more of the items included in the table.

PRINCIPAL STATISTICS OF THE BAKING INDUSTRY IN CANADA, BY PROVINCES, 1923 and 1924.

Provinces	Establishments Report.	Capital Invested	Employees	Salaries and Wages	Cost of Materials	Value of Products
1923	No.	$	No.	$	$	$
CANADA	1,980	28,231,856	10,906	12,249,008	24,287,282	48,859,478
P. E. Island	7	34,243	21	13,257	38,628	75,891
Nova Scotia	49	437,773	223	212,738	518,144	948,329
New Brunswick	49	436,306	213	216,628	558,804	1,053,934
Quebec	611	8,814,619	3,086	3,362,999	6,736,946	13,395,518
Ontario	831	13,321,736	5,394	6,080,590	12,181,143	24,100,179
Manitoba	102	1,461,891	641	789,422	1,224,915	2,797,479
Saskatchewan	103	1,107,222	343	379,607	768,083	1,612,791
Alberta	112	1,330,773	473	551,222	922,726	2,085,863
Br. Columbia & Yukon	116	1,287,293	512	642,545	1,337,893	2,789,494
1924						
CANADA	2,073	32,261,401	11,917	13,498,091	28,112,082	54,403,078
P. E. Island	5	54,450	19	14,616	48,659	94,228
Nova Scotia	49	545,540	238	209,670	586,780	1,040,201
New Brunswick	46	536,403	208	211,065	560,784	1,017,576
Quebec	662	10,016,068	3,574	3,787,019	8,270,016	15,493,596
Ontario	848	14,931,187	5,663	6,615,140	13,461,883	25,999,114
Manitoba	96	1,659,418	633	750,765	1,270,079	2,698,390
Saskatchewan	101	1,260,899	351	396,480	861,214	1,700,536
Alberta	113	1,489,624	471	574,977	1,040,561	2,281,053
Br. Columbia & Yukon	153	1,771,812	760	938,359	2,012,106	4,078,384

Production Statistics

The statistics of production in Table 1 of this report refer only to the Baking Industry and are presented by items for Canada and the provinces during the calendar year 1924. The production of bread rose from 664,076,921 pounds in 1923 to 708,430,407 pounds in 1924 an increase of 44,353,486 pounds or 6.68 per cent. In the production of buns there was a decrease in value of $114,884 and in puddings of $53,366, whilst pies, cakes etc. on the other hand show an increased value of production of $587,344. Biscuits, plain and fancy, made in baking establishments increased from 141 tons worth $43,908 in 1923 to 318 tons of the value of $136,054 in 1924, an increase in the quantity produced of 125 per cent and in value of more than 215 per cent. Confectionery made in baking establishments also shows a large increase both in quantity and in value of production, the former having risen from 517,496 pounds in 1923 to 890,456 pounds in 1924, and the latter from $186,322 in 1923 to $261,317 in 1924, being percentage increases of 55 per cent in quantity and 40 per cent in value. Ice cream production shows an increase of 3,743 gallons or 6 per cent and an increase in value of $1,288 or a little more than one per cent. All other products rose from $1,097,409 in 1923 to $1,487,821 in 1924 or 35.6 per cent.

The following table shows the total production for the Baking, Biscuit and Confectionery industries for the calendar year 1924 for 8 of the principal items of production.

Items		Made in Bakeries		Made in biscuit and confectionery establishments		Total Production	
		Quantity	Value	Quantity	Value	Quantity	Value
			$		$		$
Bread	lb.	708430407	43445304	5297283	324286	713727690	43769590
Buns	"	"	1715143	"	83601	"	1798744
Pies, cakes, etc.	"	"	7220667	"	425099	"	7645766
Puddings	"	"	16922	"	35160	"	52082
Biscuits, plain etc.	ton	318	136054	36215	13216605	36533	13352659
Confectionery, all kind	lb.	890456	261317	91182874	24771237	92073330	25032554
Ice cream	gal.	66853	119850	1902243	2662095	1969096	2781945
All other products	"	"	1487821	"	3605546	"	5093367
Total Value		"	54403078	"	45123629	"	99526707

The per capita consumption of "bakers bread" based on an estimated population of 9,226,740 in 1924, was 77.3 pounds as compared with 73.1 pounds in 1923. A table showing the per capita consumption of biscuits confectionery and ice cream is given in the report on that industry and is here repeated for the calendar years 1922, 1923 and 1924 by quantity and value.

Items		1922		1923		1924	
		Quantity	Value	Quantity	Value	Quantity	Value
			$		$		$
Biscuits	lb.	7.39	1.42	8.09	1.51	7.82	1.45
Confectionery, all kinds	lb.	1	2.78	1	2.92	10.80	2.88
Ice cream	gal.	.54	.75	.62	.82	.59	.80

1 Export figures for quantity were not available in 1922 and 1923.

The weight of a loaf of bread throughout the Dominion is not standardized but is regulated by municipal by-laws in the various provinces, except in Ontario where under R.S.O.ch. 224 the standard weight of the loaf is fixed at 24 and 48 ounces, except that in the case of "small bread" the limit is fixed at 12 ounces. According to information collected by the Bureau of Statistics the average weight of a loaf in the provinces may be stated as follows:

P. E. Island, Nova Scotia and New Brunswick at 1½ pounds or 24 oz.
Quebec, in certain municipalities at 1½ pounds or 24 ounces, while in the remaining parts of the province it is variously stated at 4, 5 and 6 pounds.
Ontario at 24 and 48 ounces except in the case of "small bread".
Manitoba generally at 16 and 20 ounces except in outlying portions of the province where it is stated at 3 pounds.
Saskatchewan, Alberta and British Columbia report 16, 18 and 20 ounces as the average weight of the loaf which is regulated by municipal by-laws.

Table 1. Production of Bread and other Bakery products by provinces, 1924.

		CANADA		P. E. Island		Nova Scotia		New Brunswick		Quebec	
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
			$		$		$		$		$
Bread	lb.	708,430,407	43,445,304	973,515	74,793	11,708,920	792,805	12,908,625	820,763	229,519,952	13,001,453
Buns	-	-	1,715,143	-	790	-	33,345	-	14,942	-	229,542
Pies, cakes, etc.	-	-	7,220,667	-	18,645	-	184,370	-	169,850	-	1,923,804
Puddings	-	-	16,922	-	-	-	3,000	-	881	-	3,844
Biscuits, plain, etc.	ton	318	136,054	-	-	-	-	-	-	238	106,902
Chocolate confectionery	lb.	488,297	140,303	-	-	2,200	1,320	-	-	85,467	27,871
Sugar confectionery	lb.	402,159	121,014	-	-	-	-	-	-	98,024	31,861
Ice cream	gal.	66,583	119,850	-	-	1,055	2,894	2,635	3,960	5,415	11,846
All other products	-	-	1,487,821	-	-	-	22,467	-	7,180	-	156,473
Total Value		-	54,403,078	-	94,228	-	1,040,201	-	1,017,576	-	15,493,596

		Ontario		Manitoba		Saskatchewan		Alberta		Br. Columbia & Yukon	
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
			$		$		$		$		$
Bread	lb.	319,581,855	20,105,720	38,569,918	2,335,838	21,856,088	1,436,489	27,038,111	1,913,695	46,273,425	2,963,748
Buns	-	-	1,086,411	-	61,120	-	66,665	-	80,190	-	142,138
Pies, cakes, etc.	-	-	3,439,847	-	289,303	-	146,469	-	238,963	-	809,396
Puddings	-	-	3,406	-	50	-	3,390	-	416	-	1,935
Biscuits, plain, etc.	ton	50	17,214	-	-	26	10,238	4	1,700	-	-
Chocolate confectionery	lb.	295,346	75,428	1,225	294	7,000	3,230	1,375	556	95,684	31,604
Sugar confectionery	lb.	111,870	38,021	-	-	15,205	3,625	35,806	10,739	141,254	34,768
Ice cream	gal.	36,430	60,430	2,520	3,553	7,972	14,079	4,438	7,173	6,110	15,915
All other products	-	-	1,172,637	-	8,232	-	16,331	-	27,621	-	76,080
Total value		-	25,999,114	-	2,698,390	-	1,700,536	-	2,281,053	-	4,078,384

Capital Invested

Capital invested in the baking industry is shown in Table 2 by items and provinces for the calendar year 1924. A further division shows fixed capital as distinct from working capital. Fixed capital comprising land, buildings, fixtures, machinery and tools totalled $25,197,739 in 1924 as against $22,766,244 in 1923, an increase over the preceding year of $2,431,495 or 10.68 per cent. Working capital made up of materials, supplies and stocks on hand together with cash, trading and operating accounts etc. totalled $7,063,662 as against $5,465,612 the previous year an increase of $1,598,050 or 29.24 per cent.

Apportioned by provinces Ontario leads in invested capital with 46.3 per cent of the total, Quebec being second with 31.1 per cent and the remaining provinces following in the order named: British Columbia 5.5, Manitoba 5.1, Alberta 4.6, Saskatchewan 3.9 and the maritime provinces 3.5 per cent.

Table 2. Capital invested in the Baking Industry by items and provinces, 1924.

Provinces	Fixed Capital	Working Capital		Total Capital
	Land, buildings, fictures, machinery and tools	Materials, supplies and stocks on hand	Cash, trading & operating accounts, etc.	
	$	$	$	$
Canada	25,197,739	3,243,019	3,820,643	32,261,401
P. E. Island	32,460	14,060	3,930	50,450
Nova Scotia	401,875	81,002	62,663	545,540
New Brunswick	379,072	52,123	105,208	536,403
Quebec	7,958,211	978,546	1,079,311	10,016,068
Ontario	11,817,617	1,531,326	1,582,244	14,931,187
Manitoba	1,334,243	96,075	229,100	1,659,418
Saskatchewan	858,501	143,026	258,972	1,260,899
Alberta	1,159,945	139,401	190,278	1,489,624
Br. Columbia & Yukon	1,255,815	207,060	308,937	1,771,812

Employment Statistics

Statistics relating to employment during the calendar year 1924 are presented in Tables 3, 4 and 5. Table 3 gives the number of persons employed during the year by sex and remuneration for the Dominion and for each of the provinces. The total amount paid for salaries in 1924 shows a decrease of $733,395 whilst wages on the other hand increased by $1,982,478 leaving a net increase in the payments for salaries and wages over 1923 of $1,249,083, or 10.19 per cent. The number of persons employed whether on salaries or wages increased by 1,011 during the period, whilst the average payment per employee rose from $1,123 in 1923 to $1,133 in 1924. Ontario and Quebec gave employment to over 77 per cent of all engaged in the industry and also account for 77 per cent of the total payments for salaries and wages.

Table 3. Employees, Salaries and Wages by provinces, 1924.

Province	Number of Salaried Employees			Number of Wage-earners			Total Employees		
	Male	Female	Salaries paid	Male	Female	Wages paid	Male	Female	Salaries and Wages
			$			$			$
CANADA	775	235	1,549,527	9,602	1,305	11,948,564	10,376	1,541	13,498,091
P. E. Island	1	1	1,500	14	3	13,116	15	4	14,616
Nova Scotia	11	5	22,600	180	42	187,070	191	47	209,670
N. Brunswick	13	7	31,417	152	36	179,648	165	43	211,065
Quebec	298	42	493,791	3,005	229	3,293,228	3,303	271	3,787,019
Ontario	225	110	534,176	4,617	711	6,080,964	4,841	822	6,615,140
Manitoba	105	33	191,439	450	45	559,326	555	78	750,765
Saskatchewan	18	4	44,536	289	40	351,944	307	44	396,480
Alberta	35	12	89,953	351	73	485,024	386	85	574,977
Br. Columbia & Yukon	69	21	140,115	544	126	798,244	613	147	938,359

Employment Statistics - Con.

Table 4 present statistics of employments by months and by sex for the Dominion in 1924. Employment was fairly constant throughout the year, the maximum being reached in August with a total of 11,101 of whom 9,768 were males and 1,333 females, whilst the minimum employment was attained in January with 9,397 males and 1,266 females or a total of 10,663. The average employment during the year totalled 10,907 of whom 9,502 were males and 1,305 were females.

Table 4.- Employees by months and sex, 1924.

Months	Male No.	Female No.	Months	Male No.	Female No.
January	9,397	1,266	July	9,745	1,326
February	9,399	1,271	August	9,768	1,333
March	9,429	1,271	September	9,734	1,331
April	9,506	1,2[illegible]	October	9,708	1,331
May	9,589	1,298	November	9,675	1,322
June	9,649	1,310	December	9,628	1,327
			Total employment in year	115,227	15,662
			Average employment during year	9,602	1,305

The working time of plants and employees is shown for the Dominion and provinces in Table 5. Employment in plants is shown by full time and part time operations and also the time they were idle. The average working time of plants on full time was 298.14 days, on part time 4.18 days and idle 10.68 days. Hours of labour per employee are shown by day or shift and per week. The daily hours of labour for the Dominion averaged 8.92 and the weekly hours 53.80.

Table 5. Working time by provinces, 1924.

Provinces	No. of operating Plants	Total days in operation			Total Hours worked		Average of		
		On full time	On part time	Idle	per day or shift	per week	Operating time	Hours worked per day	Hours worked per week
CANADA	2,073	618,044	8,669	22,136	101,704	111,537	302.32	8.92	53.80
P. E. Island	5	1,565	-	-	171	276	313.00	9.50	55.20
Nova Scotia	49	14,889	265	183	2,114	2,701	303.86	8.70	55.10
N. Brunswick	46	13,777	150	471	1,770	2,481	302.76	8.94	53.93
Quebec	662	199,973	2,658	4,575	30,416	36,795	306.09	9.10	55.75
Ontario	848	252,596	2,639	10,189	49,365	45,454	300.99	8.96	53.60
Manitoba	96	28,486	50	1,512	4,507	4,883	297.25	8.75	50.87
Saskatchewan	101	28,243	1,705	1,665	3,267	5,434	296.51	9.03	53.80
Alberta	113	32,785	943	1,641	4,067	5,944	298.48	8.55	52.60
Br. Columbia & Yukon	153	45,730	259	1,900	6,027	7,569	300.52	8.25	49.47

Fuel Consumption

The quantity and cost value delivered at the works of the fuel consumed by the industry during 1924 is shown by classes in Table 6. Coal and Coke constituted approximately 54 per cent of the total cost for all fuel, wood 27.4 per cent, gas (artificial or natural) 13.2 per cent, whilst the remaining fuels represented about 5½ per cent. There was a decrease in the total value of fuel consumed of $32,845 as compared with 1923, when the total outlay amounted to $1,370,441.

Table 6. Fuel consumed, by classes, 1924

Classes of fuel	Unit of Measure	Quantity	Cost Value at work
			$
Bituminous coal	short ton	15,516	147,267
Anthracite coal	" "	14,587	221,888
Lignite coal	" "	1,720	15,372
Coke	" "	30,086	339,931
Gasoline	gallon	110,327	33,715
Oil (fuel)	"	300,871	26,744
Wood	cord	69,381	366,576
Gas (artificial and natural)	m.c.ft.	270,046	176,820
All other fuel not specified	-	-	9,283
Total cost of fuel used		-	1,337,596

Power Equipment

The classes of power employed in the industry are shown in Table 7 by (a) the number of units in each class and (b) the indicated horse-power according to manufacturers' rating. Eighty-one per cent of the power employed in the industry was developed by electric motors, 14.4 per cent by internal combustion engines and the remaining 4.6 per cent by steam engines and hydraulic turbines. The cost of electricity purchased was $276,610 or an average of $39 per horse-power purchased. The number of boilers intalled for any purpose whatever is reported in the table but does not form any part of the power installation.

Table 7. Power employed by classes, 1924.

Classes of power	Number of of units	Total Horse-power according to manufacturers' rating
Steam engines and turbines	23	258
Oil, gas and gasoline engines	333	1,248
Hydraulic turbines or water wheels	29	86
Total Primary power	385	1,592
Electric motors operated by purchased power	1,476	7,044
Total power for manufacturing purposes	1,861	8,636
Electric motors operated by power generated by establishments	57	200
Total motors installation	1,533	7,244
Boilers installed for any purpose	63	1,489

Materials Used

The quantity and cost value of the materials used in this industry were not required by the 1924 questionnaire, the total cost only being asked. The importance of this information from an economic standpoint is admitted and in future questionnaires the collection of this information will be resumed. The total cost of materials used is shown in Table 8 by provinces for the calendar years 1923 and 1924.

Table 8. Total Cost of Materials used, 1923 and 1924.

Provinces	1923	1924
CANADA	24,287,282	28,112,082
P. E. Island	38,628	48,659
Nova Scotia	518,144	586,780
New Brunswick	558,804	560,784
Quebec	6,736,946	8,270,016
Ontario	12,181,143	13,461,883
Manitoba	1,224,915	1,270,079
Saskatchewan	768,083	861,214
Alberta	922,726	1,040,561
British Columbia & Yukon	1,337,893	2,012,106

Imports and Exports

The imports of commodities in the baking industry are not of sufficient importance to have a separate import classification but are included in imports under the item "flavoring powders, custard powders, jelly powders, sweetened breads, pies, cakes and puddings". One item only is shown separately that of Passover bread - which in the calendar year 1924 was valued at $111,418, all of which came from the United States.

Exports similarly are combined in the export classification under the head of "biscuit and bread" so that it is not possible to give separate information regarding the export of either commodity.