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THE FRUIT & VEGETABLE PACKING INDUSTRY

in

CANADA

1923

INCLUDING

1. FRUITS AND VEGETABLES, CANNED
2. FRUITS AND VEGETABLES, DRIED OR EVAPORATED
3. FRUITS, PRESERVED
4. VINEGAR, PICKLES, SAUCES AND RELISHES

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OTTAWA CANADA

Dominion Statistician: R. H. Coats, B.A., F.S.S.(Hon.), F.R.S.C.  
 Chief, Census of Industry: J. C. Macpherson.

REPORT ON THE FRUIT AND VEGETABLE PACKING INDUSTRIES IN CANADA1923

Ottawa, April, 1925.- A report is herewith presented on the Fruit and Vegetable Packing and Allied Industries in Canada for the calendar year 1923. Four separate sections, each of which is separately dealt with, are covered by the report, as follows:-

1. Fruits and Vegetables, Canned.
2. Fruits and Vegetables, Dried and Evaporated.
3. Fruits, Preserved.
4. Vinegar, Cider, Pickles, Sauces and Relishes.

This classification of the industry permits of a comprehensive view of the various specific products such as "Canned fruits and vegetables" which appear in sections 1, 3 and 4; "Evaporated Fruits" in sections 1, 2 and 4; "Preserved fruits" in sections 1, 3 and 4 and "Vinegar, Cider, Pickles, Sauces and Relishes" in sections 1, 2, 3 and 4. A summary table showing the total value of production of specific commodities for all four sections of the industry follows:-

Summary of Value of Production of Specific Commodities, 1923.

Products	Section 1 Value	Section 2 Value	Section 3 Value	Section 4 Value	Total 4 Sections Value
Fruits, canned	1,714,190	-	17,928	-	1,732,118
Vegetables, canned	6,562,829	-	15,639	596,951	7,175,419
Fruits, evaporated	30,176	186,000	-	20,195	236,371
Fruits, preserved	700,915	-	4,770,358	116,270	5,588,043
Vinegar, pickles, etc.	272,060	500	204,907	3,564,282	4,061,749
All other products	233,552	-	493,877	1,380,193	2,107,622
Totals	9,513,722	186,500	5,503,209	5,697,891	20,901,322

NUMBER AND LOCATION OF PLANTS

Table 1 gives a comparative view of the numbers and location by provinces of the operating plants in each section of the industry for the calendar years 1922 and 1923.

Table 1.- Number and Location of Operating Plants, 1922 and 1923.

Provinces	Fruits and Vegetables Canned		Fruits and Vegetables Evaporated		Fruits Preserved	
	1922	1923	1922	1923	1922	1923
CANADA	117	103	64	30	48	49
P. E. Island	-	-	-	-	-	-
Nova Scotia	5	3	9	1	-	1
New Brunswick	9	7	-	-	-	-
Quebec	12	11	-	-	10	9
Ontario	79	72	54	28	23	22
Manitoba	-	-	-	-	-	-
Saskatchewan	-	-	-	-	-	-
Alberta	-	-	-	-	2	2
Br. Columbia	12	10	1	1	13	15

(2)

THE FRUIT AND VEGETABLE PACKING INDUSTRIES IN CANADA 1923

NUMBER AND LOCATION OF PLANTS, (continued)

Table 1.- Number and Location of Operating Plants, 1922 and 1923 (con.)

Provinces	Vinegar, Cider, Pickles, Sauces and Relishes		Total Operating Plants	
	1922	1923	1922	1923
CANADA	67	70	296	252
P. E. Island	-	-	-	-
Nova Scotia	4	2	18	7
New Brunswick	1	1	10	8
Quebec	9	8	31	28
Ontario	44	46	200	168
Manitoba	1	4	1	4
Saskatchewan	-	-	-	-
Alberta	3	3	5	5
Br. Columbia	5	6	31	32

PRINCIPAL STATISTICS.

A comparison of the principal statistics of the four sections comprising the industry in the Dominion for the calendar years 1922 and 1923 is presented in Table 2. The only section showing an increase in value of production was that of Vinegar, cider, pickles, and Relishes, where the increase amounted to \$238,525, whilst the other three sections showed a total decrease in value of \$2,832,988.

Table 2.- Comparative Statistics, 1922 and 1923.

	Unit	1923	1922	✓ Increase - Decrease
Establishments	No.	252	296	- 42
Capital invested	\$	23,106,580	24,077,358	- 970,778
Employees on salaries - Male	No.	499	532	- 33
Female	No.	145	146	- 1
Salaries	\$	974,584	1,005,886	- 31,302
Employees on Wages - Male	No.	1,876	1,954	- 78
Female	No.	1,797	1,872	- 73
Wages	\$	2,286,395	2,417,014	- 130,619
Outside piece-workers - Male	No.	60	123	- 63
Female	No.	316	602	- 286
Am't. paid	\$	15,107	43,649	- 28,542
Power Installed - Units	No.	938	888	✓ 50
Capacity	H.P.	11,726	12,347	- 621
Cost of fuel	\$	330,044	467,029	- 136,985
Miscellaneous expenses	\$	2,952,599	2,589,565	✓ 363,034
Cost of materials	\$	12,018,704	13,512,518	-1,493,814
Gross value of products	\$	20,901,322	23,495,785	-2,594,463
Net value of products	\$	8,882,618	9,983,267	-1,100,649

THE FRUIT AND VEGETABLE PACKING INDUSTRIES IN CANADA, 1923SECTION I. - FRUIT AND VEGETABLE CANNING

The number of plants operating in the fruit and vegetable canning industry in 1923 was 103 or 14 less than in 1922. Seventy per cent of the number of active plants in 1923 were situated in the province of Ontario and they furnished seventy-one per cent of the total value of production.

PRODUCTION

The quantity and selling value at the factory of the various classes of products manufactured during the year are shown in Table 3.

Table 3.- Production Canned Fruits, Vegetables, etc., 1923.

Classes of Products	Unit of Measure	Quantity	Selling value at factory
<b>Fruits, canned:-</b> Total value	-	472,314	1,714,190
Apples	cases	151,053	316,551
Apricots	"	7,703	31,331
Cherries	"	41,116	202,285
Currants	"	447	3,368
Peaches	"	55,185	215,479
Pears	"	71,285	271,836
Plums	"	35,063	97,904
Pineapples	"	13,566	90,199
Gooseberries	"	1,725	7,687
Blueberries	"	11,785	38,214
Raspberries	"	33,457	177,849
Strawberries	"	37,190	205,592
Loganberries	"	6,866	29,558
Rhubarb	"	10,373	23,237
All other	-	-	3,100
<b>Fruits, preserved:-</b> Total value	-	-	700,915
Jams	pounds	2,361,395	440,773
Jellies	"	46,375	6,992
Marmalades	"	34,232	5,544
Preserved or crushed fruits	gallon	32,754	169,036
Syrups	"	22,720	78,570
<b>Vegetables, canned:-</b> Total value	-	235,760	6,562,829
Beans, green or wax	cases	67,855	222,973
Beans, baked	"	362,152	969,217
Beets	"	12,758	47,643
Corn	"	424,216	1,114,173
Carrots	"	835	3,308
Peas	"	534,024	1,522,653
Spinach	"	6,769	23,177
Pumpkin	"	44,238	107,205
Squash	"	215,656	575,458
Tomatoes	"	684,258	1,923,056
Asparagus	"	4,879	37,817
All other	-	-	15,449
<b>Miscellaneous Products:-</b> Total value	-	-	535,788
Minced meat	pound	11,770	1,648
Catsup and relishes	gallon	246,365	226,895
Tomato purée	case	4,999	13,690
Canned soups	"	30,963	120,928
Canned chicken	"	1,137	16,138
Evaporated apples	can	144	30,176
Sauerkraut	pound	260,438	13,687
Vinegar	gallon	70,000	14,000
Cider	"	116,500	17,475
All other	-	-	81,151
<b>Grand total value of products</b>	-	-	9,513,722

Canned soups  
Canned meats

cases 30,963 120,928  
lbs 5223,239 1,275,604

CAPITAL INVESTMENT

The amount of capital invested in the canning section of the industry is shown in table 4 under two heads:- fixed capital and working capital. Fixed capital includes the value of (a) land, buildings and fixtures and (b) machinery and tools and totalled \$8,155,003. Working capital is represented by (a) materials and supplies on hand, finished products on hand, fuel, etc. and (b) cash, trading and operating accounts and bills receivable which totalled \$3,101,607. Compared with 1922 fixed capital shows an increase in operating plants of \$2,336,602 whilst working capital, on the other hand, decreased by \$2,592,800 leaving a net decrease of \$256,198 in the total capital investment in 1923.

Table 4.- Capital Invested by Provinces, 1923.

Provinces	Fixed Capital		Working Capital		Total Capital
	Land, buildings & fixtures	Machinery & tools	Materials on hand, finished products, fuel, etc.	Cash, trading & operating accounts	
CANADA	4,939,275	3,216,528	2,532,867	568,740	11,257,410
N. S.	56,500	39,559	25,578	54,633	176,270
N. B.	8,280	4,841	10,741	268	24,130
Quebec	165,425	92,982	238,390	37,776	534,573
Ontario	4,302,423	2,783,451	1,969,131	342,273	9,397,278
Br. Columbia	406,647	295,695	289,027	133,790	1,125,159

EMPLOYEES, SALARIES AND WAGES

The number of persons employed in this section of the industry is shown by classes, sex and remuneration in table 5. Salaried employees numbered 195 males and 60 females with an aggregate salary payroll of \$339,495 which represented an average salary per employee of \$1,331. For those working on wages the males numbered 1,021 and the females 1,007 with a total wage payroll amounting to \$1,108,634 or an average per employee in this seasonal industry of \$546. More than seventy per cent of the total number employed in this industry and 75 per cent of the payments for salaries and wages are accredited to the province of Ontario. British Columbia is next with about 17 per cent of the employees and 20 per cent of the payments for salaries and wages.

Table 5.- Employees by classes, sex and salary and wage payments, 1923.

Classes of employees.	Number of Employees		Total salaries and wages paid.
	Male	Female	
Salaried officers of corporations	20	2	46,070
General superintendents, managers	112	1	189,993
Technical experts, engineers, etc.	11	-	18,016
Clerks, stenographers, salesmen and other salaried employees	52	57	85,416
Wage-earners, average yearly number	1,021	1,007	1,108,634
Outside piece workers	30	84	9,014
Totals	1,246	1,151	1,457,143

EMPLOYMENT BY MONTHS

The seasonal nature of the industry becomes apparent by a study of the number of persons employed during each month of the year. Table 6 shows the average employment in the months, July to October inclusive of 1,899 males and 2,239 females whilst the average for the remaining 8 months was 582 males and 392 females, most of whom were engaged in the packing and shipping of the products of the industry. The average employment throughout the year was 1,021 males and 1,007 females and the months of maximum and minimum employment were respectively September and January.

Table 6. Employment by Months, 1923.

Months	No. of employees		Months	No. of employees	
	Male	Female		Male	Female
January	312	98	July	1,946	1,864
February	330	215	August	1,549	1,971
March	364	141	September	2,464	3,129
April	508	156	October	1,637	1,971
May	631	198	November	999	1,075
June	805	642	December	708	608
Total for the year				12,253	12,088
Average employment throughout year				1,021	1,007

OTHER LABOUR STATISTICS

The working time of plants further illustrates the seasonal nature of the industry as will be seen in table 7. Full time operations of plants totalled 10,713 days and part time operations 3,848 days, a total operating time of 14,561 days, or an average of 141 days per plant. On the other hand, plants were idle for 16,751 days, or an average of 163 days per plant. The hours of labour performed by employees averaged 9.77 per day and 58.21 per week.

Table 7. Working Time of Plants and Employees, 1923.

Number of Plants in Operation during year	103	
	Total days	Average per plant
Days in operation on full time	10,713	104.
" " " " part time	3,848	37.
Days idle	16,751	163.
Hours worked by employees per day or shift	1,006	9.77
" " " " per week	5,996	58.21

FUEL CONSUMPTION

The quantity and cost value at the factory of the fuel consumed in this industry during the calendar year 1923 is shown by classes in table 8. Coal and coke accounted for 95 per cent of the total cost of all fuel, of which the bituminous class alone represented almost 90 per cent. Compared with the previous year fuel costs decreased by \$67,423 owing to the reduced quantity used as well as to lower market prices.

Table 8. Fuel Used, 1923.

Classes of fuel used	Unit of Measure	Quantity	Cost value at the factory
Bituminous coal	ton	15,466	112,968
Anthracite coal	"	225	3,268
Lignite coal	"	97	590
Coke	"	371	4,130
Gasoline	gal.	2,959	367
Oil (fuel)	"	26,744	1,311
Wood	cord	568	2,614
Gas, artificial and natural	m.c.ft.	551	254
Other fuel, not specified	-	-	1,420
Total cost of fuel	-	-	127,422

POWER EMPLOYED

The kinds of power employed in the industry are shown in table 9 by (a) the number of units of each and (b) the horsepower according to manufacturers' rating. The number of boilers installed was 124 with a total boiler horse power capacity of 10,216.

Table 9.- Power Employed, 1923

Classes of power	Number of Units	Horse-power according to Manufacturers' rating
Steam engines and turbines	112	4,448
Gas engines	9	518
Oil and gasoline engines	22	103
Electric motors operated by power generated by the establishments	95	1,036
Electric motors operated by rented power	246	1,380
Totals	484	7,993

(6)

THE FRUIT AND VEGETABLE PACKING INDUSTRIES IN CANADA, 1923MISCELLANEOUS EXPENSES

The total cost of miscellaneous or overhead expenses incurred during the year 1923 amounted to \$1,458,766. The items included under this head were rents, taxes, insurance, advertising and travelling expenses, telegraph, telephone, postal and express charges, office furniture and supplies, repairs to buildings and plant, depreciation and sundry other expenses.

MATERIALS USED

The quantity and cost value delivered at the factory of all materials used during the year are shown in table 10. Compared with 1922 there was a considerable decrease in the quantity of each of the principal materials used and also a difference in cost value of \$1,487,790.

Table 10. Materials Used by quantity and value, 1923.

Kind of Materials		Unit of Measure	Quantity	Cost value at factory
Fruits -	Total			633,661
Apples		lb.	14,707,526	90,764
Peaches		"	1,906,671	49,266
Pears		"	3,017,678	84,643
Raspberries		"	720,041	88,095
Strawberries		"	1,473,716	121,336
All other fruits		-	-	204,557
Vegetables -	Total			1,199,650
Beans, green or wax		lb.	1,397,847	44,365
Beans, white		"	3,340,013	185,005
Corn		"	29,660,139	170,123
Peas		"	12,201,275	257,244
Pumpkins		"	3,672,070	12,702
Tomatoes		"	72,100,654	468,274
All other vegetables		-	-	61,857
Other Materials -	Total			3,485,657
Sugar		lb.	5,103,670	484,949
Salt		"	529,425	7,234
Glucose		"	130,290	6,549
All other		-	-	235,367
Containers, labels, etc.		-	-	2,751,558
Total cost of all materials			-	5,323,968

IMPORTS AND EXPORTS, Calendar Year 1923.

The quantity and value of goods imported for consumption and of those, the produce of Canada, exported during the calendar year 1923 are shown in table 11.

Table 11.- Canned Fruits and Vegetables Imported and Exported, 1923.

Articles		IMPORTS		EXPORTS	
		Quantity	Value	Quantity	Value
Fruits, canned -					
In cases or other air-tight packages, n.o.p.	lb.	4,987,332	555,703	-	690,697
Peaches in cases or air-tight packages	lb.	1,933,688	171,177	-	-
Vegetables, canned -					
Baked beans in cans, etc.	lb.	1,259,329	38,179	-	-
Corn in cans, etc.	lb.	905,440	75,302	-	-
Tomatoes in cans, etc.	lb.	662,282	56,068	-	-
Vegetables, n.o.p. in cans, etc.	lb.	5,802,400	705,153	18,936,704	1,347,985
Totals		-	1,651,662	-	2,038,682

THE FRUIT AND VEGETABLE PACKING INDUSTRIES IN CANADA, 1923.

Section II.- FRUITS AND VEGETABLES, DRIED AND EVAPORATED.

This section of the industry shows that but 30 plants reported operations in 1923 as against 64 in 1922, and that 23 plants were located in Ontario and one each in the provinces of Nova Scotia and British Columbia.

PRODUCTION

The statistics of production show a large decrease when compared with 1922 amounting to \$369,126. Table 1 gives the quantities and values of the principal products for the Dominion.

Table 1. Production 1923.

Products	Unit of Measure	Quantity	Selling Value at Factory
			\$
Apples, evaporated	pounds	1,602,000	166,209
Apple chop and waste	"	898,500	19,791
Other products		-	500
Total value of products		-	186,500

CAPITAL INVESTED

The amount of capital invested in this section of the industry is shown by items under two principal heads:- fixed capital and working capital.

Table 2.- Capital Invested by provinces, 1923.

Provinces	Fixed Capital		Working Capital		Total Capital
	Land, buildings & fixtures	Machinery & tools	Materials on hand, fuel, etc.	Cash, trading and operating accounts, etc.	
CANADA	140,056	38,733	22,270	3,720	204,779
Ontario	136,056	36,733	18,270	2,920	193,979
Other prov.	4,000	2,000	4,000	800	10,800

EMPLOYEES, SALARIES AND WAGES

The number of persons employed is shown by classes, sex and remuneration in table 3.

Table 3.- Employees, Salaries and Wages, 1923.

Classes of employment	No. of Employees		Total salaries & wages
	Male	Female	
General superintendents, managers, etc.	6	-	3,020
Clerks, stenographers, salesmen and other salaried employees	1	2	1,062
Employees on wages (average for year)	42	60	47,793
Totals	49	62	51,875

The seasonal nature of the industry is shown in the statistics of employment by months in Table 4.

Table 4.- Employment by Months, 1923.

Months of Employment	No. of Employees	
	Male	Female
August	6	-
September	55	79
October	164	262
November	197	295
December	78	80
Total five months	500	724
Average yearly employment	42	60

THE FRUIT AND VEGETABLE PACKING INDUSTRIES IN CANADA 1923.

OTHER LABOUR STATISTICS

The operating time of plants affords a further illustration of the seasonal nature of the industry as will be observed in table 5.

Table 5.- Working time of Plants and Employees, 1923.

No. of plants operating during the year	30	
	Total days	Average per plant
Days in operation on full time	1,319	43.97
" " " " part time	79	2.63
" idle	7,722	257.40
Hours worked by employees per day or shift	285	9.50
" " " " per week	1,708	56.93

FUEL CONSUMPTION

The consumption of fuel by classes, quantity and value is shown in table 6. Coal and coke formed 86 per cent of the total value of fuel used.

Table 6.- Fuel Consumption by classes, 1923.

Classes of fuel	Unit of Measure	Quantity	Cost value at factory
Bituminous coal	ton	230	2,512
Anthracite coal	"	642	10,303
Coke	"	633	8,046
Gasoline	gal.	1,505	410
Oil (fuel)	"	447	110
Wood	cords	639	2,913
Other fuel, not specified	-	-	5
Total cost of fuel used			24,307

POWER EMPLOYED

Power installation in the industry is shown in table 7 by (a) the number of units in each class and (b) the horsepower according to manufacturers' rating.

Table 7. Power Employed, 1923.

Classes of power	Number of Units	Horsepower according to manufacturers' rating
Steam engines and turbines	2	166
Oil and gasoline engines	13	33
Hydraulic turbines	1	15
Electric motors operated by owned power	1	1
" " " " rented power	10	51
Totals	27	316

MISCELLANEOUS EXPENSES

The cost of miscellaneous or overhead expenses connected with this section of the industry amounted in 1923 to \$12,954. The items included under this heading are rents, taxes, insurance, advertising and travelling expenses, office supplies and stationery, postal, telegraph, telephone and express charges, repairs to buildings and plant and depreciation.

MATERIALS USED

The quantity and value at the factory of the principal materials used are shown in table 8.

Table 8.- Materials Used, 1923.

Kinds of materials	Unit of measure	Quantity	Cost value
Apples	lb.	14,872,330	54,029
Sulphur	"	21,545	349
Boxes and other containers			12,343
Labels, etc.			240
All other materials			611
Total cost of materials			68,072

IMPORTS AND EXPORTS

The quantity and value of the imports and exports of dried and evaporated fruits and vegetables are presented in table 9 for the calendar year 1923.

Table 9.-Imports and Exports, Calendar year 1923.

Articles	Imports		Exports.	
	Quantity	Value	Quantity	Value
Fruits, dried or evaporated -				
Apples lb.	1,391,193	47,260	1,549,704	155,894
Apricots "	1,544,394	140,371	-	-
Peaches "	1,733,372	153,569	-	-
All other	720,052	123,233	9,074	1,050
Vegetables, dried, desiccated, etc-			924	260
Potatoes lb.	-	2,087		
Total value impts. & expts.		474,520		157,212

Section III.—FRUITS, PRESERVED

In Section III the preserving of fruits is especially dealt with. Comprehensive statistics of the values of products will be found in the summary table on page 1 of this report. The number of plants reporting in 1923 was 49, an increase of one additional plant over 1922. Of this total 22 were located in Ontario, 15 in British Columbia, 9 in Quebec, 2 in Alberta and 1 in Nova Scotia.

PRODUCTION

The quantity and selling value of the products of this industry are found in table 1. Ontario's production totalled \$2,678,989 or 48.7 per cent, Quebec's \$1,484,390 or 27.0 per cent and British Columbia's \$1,315,754 or 23.9 per cent.

Table 1.—Production of Preserved Fruits, 1923.

Kinds of Products	Unit of Measure	Quantity	Selling Value \$
Preserved fruits —			
Jams	pounds	22,718,311	3,309,690
Jellies	"	1,447,180	192,307
Marmalades	"	4,790,910	530,150
Preserved fruits	gallons	100,545	270,300
Syrups	"	543,470	391,891
All other (value only)			26,520
Canned fruits	cases	5,180	17,928
Canned vegetables	"	6,191	15,639
Pickles	gallons	60,485	72,829
Sauces and relishes	"	156,417	130,771
Mince meat	pounds	958,830	120,247
All other miscellaneous products (value only)			37,857
Total value of products			5,503,209

CAPITAL INVESTMENT

The amount of capital invested in the preserving section is shown in table 2 under two heads — fixed capital and working capital — which terms have been described in section I. Fixed capital totalled \$2,503,473 or 44.8 per cent of the entire investment and working capital \$3,153,597 or 55.2 per cent.

Table 2.—Capital Invested by Provinces, 1923.

Provinces	Fixed Capital		Working Capital		Total
	Land, build-ings, etc.	Machinery and tools	Materials and stocks on hand, etc.	Cash, trading and operating accounts	
CANADA	1,882,350	681,128	1,872,247	1,291,250	5,726,975
Ontario	1,294,343	438,569	975,331	943,666	3,651,909
Quebec	391,308	135,737	448,047	175,364	1,150,456
Br. Columbia	196,699	104,800	443,975	169,556	915,130
Other Prov.	—	2,022	4,894	2,564	9,480

EMPLOYEES, SALARIES AND WAGES

The number of persons at employment in this section is shown according to classes, sex and remuneration in table 3. The seasonal nature of the industry does not apply in this section to the same extent as in the canning and evaporating section as will be noted in the statistics of employment by months (table 4).

Table 3.—Employees, Salaries and Wages, 1923.

Classes of Employees	No. of Employees		Salaries & wages paid
	Male	Female	
Salaried Officers of corporations	26	—	68,213
General superintendents, managers, etc.	32	2	79,033
Technical experts, engineers, chemists, accountants, etc.	11	3	16,145
Clerks, stenographers and other salaried employees	73	40	138,917
Wage earners, average number	299	447	459,584
Outside piece workers	30	232	6,093
Totals	471	724	767,785

THE FRUIT AND VEGETABLE PACKING INDUSTRY IN CANADA, 1923.EMPLOYMENT STATISTICS (continued)

Employment of wage earners by months is shown by number and sex in table 4. The maximum number employed was in the month of July when there were entered on the payroll 1,443 persons and the minimum in January when the number totalled 413.

Table 4. - Employment by Months, 1923.

Months	No. of Employees		Months	No. of Employees	
	Male	Female		Male	Female
January	205	208	July	475	974
February	218	226	August	362	509
March	221	258	September	355	576
April	213	284	October	396	563
May	239	311	November	303	416
June	351	684	December	247	357
Total employment				3,535	5,366
Average number employed throughout the year				299	447

OTHER LABOUR STATISTICS

The time during which the plants were in operation during the year and the hours of labour of employees are shown in table 5. Full time operation of plants totalled 10,553 days and part time 1,454 days or a total operating time of 12,007 days, an average per plant of 245 days. The time during which plants were idle totalled 2,889 days or an average per plant of 59 days.

Table 5.- Working time of plants and employees, 1923.

Number of plants in operation during year	49	
	Total Days	Average per plant
Days in operation on full time	10,553	215.37
" " " " part time	1,454	29.67
Days idle	2,889	58.96
Hours of labour of employees per day or shift	428	8.73
" " " " " " " week	2,420	49.40

FUEL CONSUMPTION

The quantity and the cost value delivered at the factory of the different classes of fuel used in the industry in 1923 are shown in table 6. The total cost shows a decrease of \$14,658 as compared with 1922 owing principally to lower market prices.

Table 6.- Fuel Consumption, 1923.

Classes of fuel	Unit of Measure	Quantity	Cost value at factory
Bituminous coal	ton	7,339	51,729
Anthracite coal	"	19	308
Coke	"	23	224
Gasoline	gal.	2,899	839
Oil (fuel)	"	15,915	1,420
Wood	cord	1,331	6,935
Gas, artificial or natural	m.c.ft.	2,896	3,215
Total cost of fuel used		-	74,670

POWER EMPLOYED

The kinds of power installed in this section of the industry are shown in table 7 according to (a) the number of units of each class and (b) the horsepower according to manufacturers' rating.

Table 7.- Power Installation, 1923.

Kinds of power	Number of units	Total horsepower according to manufacturers' rating
Steam engines and turbines	17	668
Oil and gasoline engines	2	24
Electric motors operated by owned power	2	50
" " " " rented "	120	661
Total power installation	141	1,403
Boilers installed	14	846

# THE FRUIT AND VEGETABLE PACKING INDUSTRIES IN CANADA, 1923 (11)

## MISCELLANEOUS EXPENSES.

The total cost of miscellaneous expenses or "overhead" amounted to \$531,792 in 1923 a decrease of \$37,488 as compared with the outlay in 1922. Included under this head were the following items:- rents, taxes, insurance, advertising and travelling expenses, office furniture and supplies, telegraph, telephone, postal and express charges, repairs to buildings and plant, depreciation and sundry expenses.

## MATERIALS USED

The quantity and cost value of the principal materials used in this section are presented in table 8.

Table 8.- Materials Used by Quantity and Value, 1923.

Kinds of materials		Unit of Measure	Quantity	Cost value at factory
Fruits -	Total value	-	-	876,698
Apples		pounds	4,209,401	33,603
Cherries		"	827,319	88,356
Currents		"	299,458	29,851
Pineapples		"	330,048	38,807
Loganberries		"	167,641	7,801
Peaches		"	202,963	9,556
Plums		"	622,102	14,039
Gooseberries		"	119,864	6,250
Raspberries		"	1,510,861	184,850
Strawberries		"	4,118,016	378,189
Oranges		"	655,777	41,359
All other (value only)			-	44,037
Vegetables -	Total value	-	-	46,348
Beets		"	23,708	751
Cauliflowers		"	130,500	5,110
Tomatoes		"	3,198,662	28,809
Cucumbers		"	313,565	7,005
Onions		"	211,500	4,388
All other (value only)			-	285
Other materials -	Total value	-	-	2,799,150
Salt		"	267,414	3,149
Sugar		"	16,932,979	1,561,732
Glucose		"	5,103,335	218,381
Pectin		"	532,699	82,758
All other (value only)			-	221,661
Containers, caps, labels, etc.(value only)			-	711,469
Grand total cost of materials used				3,722,196

## IMPORTS AND EXPORTS

The quantity and value of imports for consumption in Canada included in this section are shown in table 9 for the calendar year 1923. There were no exports in this section.

Table 9.- Imports for Consumption by Countries, 1923.

Country	Jams, jellies and preserves n.o.p.		Fruits preserved in brandy, etc.	
	Quantity lbs.	Value \$	Quantity gal.	Value \$
United Kingdom	1,288,883	194,740	-	-
United States	72,750	20,622	4	63
Australia	4,946	980	-	-
France	183,488	44,328	-	-
Other countries	6,622	1,446	-	-
Total imports	1,556,689	262,116	4	63

(12).

THE FRUIT AND VEGETABLE PACKING INDUSTRIES IN CANADA, 1923.SECTION IV.- Vinegar, Cider, Pickles, Sauces, etc.

The manufacture of vinegar, cider, pickles, sauces and relishes is presented in this section and covered reports from 70 individual concerns, 46 of which were located in the province of Ontario, 8 in Quebec, 13 in the Western Provinces and 3 in the Maritime Provinces. This was an increase over 1922 of three in the number of concerns reporting and of \$514,239 in the total value of production.

PRINCIPAL STATISTICS.

The principal statistics of this industry in 1923 are presented in the following summary table by provinces. Increases over 1922 appear in nearly every one of the statistical items of the table for the Dominion. Capital increased by \$473,897, salaries by \$30,415, wage earners by 152 in number and \$125,781 in the amount paid them, miscellaneous expenses by \$110,081 and cost of materials by \$224,703. There were decreases of one in the number of salaried employees, of 580 in horsepower capacity, and of \$7,313 in the cost of fuel.

PRINCIPAL STATISTICS BY PROVINCES, 1923.

Principal Statistics	Unit	CANADA	MARITIME PROVINCES	QUEBEC	ONTARIO	WESTERN PROVINCES
Establishments reporting	No.	70	3	8	46	13
Capital invested	\$	5,917,416	189,763	242,315	5,073,977	411,361
Employees on salaries -						
Male	No.	155	9	14	111	21
Female	No.	33	3	2	29	4
Salaries	\$	328,699	23,384	28,350	224,107	52,858
Employees on Wages -						
Male	No.	514	30	26	424	34
Female	No.	285	11	10	230	34
Wages	\$	670,584	23,642	30,757	565,104	51,081
Power Installation - Units	No.	286	7	5	251	23
Capacity	H.P.	2,014	80	29	1,771	134
Cost of fuel	\$	113,645	4,630	5,404	100,156	3,455
Miscellaneous expenses	\$	949,087	28,780	29,699	801,114	89,494
Cost of materials	\$	2,904,468	69,599	121,453	2,394,653	318,763
Value of products	\$	5,697,891	160,637	229,596	4,756,842	550,816
Value added by manufacture	\$	2,793,423	91,038	108,143	2,362,189	232,053

## THE FRUIT AND VEGETABLE PACKING INDUSTRIES IN CANADA, 1923.

## PRODUCTION STATISTICS

The quantity and selling value at the factory of the principal products of this section are shown in table 1 by provinces. Over eighty per cent of the entire production is credited to the province of Ontario. Vinegar stands in first place in value of production followed in order by sauces, catsup and relishes, pickles and baked beans, the four together representing approximately 75 per cent of the total value.

Table 1.- Production by Provinces, 1923.

Products	Unit	CANADA		MARITIME PROVINCES		QUEBEC		ONTARIO		WESTERN PROVINCES	
		Quantity	Selling Value	Quant.	Selling Value	Quant.	Selling Value	Quant.	Selling Value	Quant.	Selling Value
Pickles, all kinds	Gal.	670,675	1,007,139	31,025	49,845	35,500	47,381	508,430	713,742	103,720	196,171
Vinegar	"	4,273,753	1,300,298	280,300	60,450	600,401	172,190	2,352,470	784,331	960,574	291,327
Cider	"	572,246	125,904	151,250	25,525	-	-	306,196	89,327	34,800	11,052
Sauces and relishes	"	837,102	1,142,941	-	-	-	-	834,685	1,137,907	2,417	5,034
Olives, bottled	"	41,223	146,792	-	-	-	-	41,223	146,792	-	-
Salad dressing	"	17,150	60,555	-	-	1,000	600	16,150	59,955	-	-
Mince-meat	lb.	783,353	102,019	-	-	-	-	777,353	100,369	11,000	1,650
Sauerkraut	"	1,825,108	65,125	-	-	-	-	1,667,108	59,855	150,000	5,270
Horseradish	"	43,300	13,056	-	-	-	-	43,600	12,216	4,700	840
Mustard, prepared	"	945,022	97,943	-	-	36,500	4,225	908,122	93,628	400	90
Preserved fruits	"	-	116,270	-	-	-	-	-	110,270	-	6,000
Beans, baked	"	274,451	596,951	-	-	-	-	274,451	596,951	-	-
Fruits, dried	lb.	202,000	20,195	202,000	20,195	-	-	-	-	-	-
All other products	"	-	894,703x	-	4,622	-	5,200	-	851,492x	-	33,302
Total value			5,697,391	-	160,637	-	229,596	-	4,756,842	-	550,316

x Includes:- apple butter, peanut butter, canned soups, macaroni and fruit pectin.

THE FRUIT AND VEGETABLE PACKING INDUSTRIES IN CANADA, 1923

CAPITAL INVESTMENT

The amount of capital invested in this section of the industry is shown by provinces under two heads, viz., fixed capital and working capital in table 2. The total capital was about evenly divided according to this classification but when compared by provinces it will be seen that nearly 85 per cent of the entire investment is credited to the province of Ontario.

Table 2.— Capital Invested by Provinces, 1923.

	CANADA	MARITIME PROVINCES	QUEBEC	ONTARIO	WESTERN PROVINCES
Fixed capital, total -	2,964,374	122,267	146,938	2,517,062	178,047
Land, buildings, etc.	1,777,123	46,214	77,492	1,577,596	75,821
Machinery and tools	1,187,251	76,053	69,506	939,466	102,226
Working capital, total -	2,953,042	67,496	95,317	2,556,915	233,314
Materials and supplies on hand, fuel, etc.	2,524,084	54,021	63,766	2,231,660	174,637
Cash, trading and operating accounts, etc.	428,958	13,475	31,551	325,255	58,677
Grand Total Capital	5,917,416	189,763	242,315	5,073,977	411,361

EMPLOYEES, SALARIES AND WAGES

The number of persons at employment in this section of the industry is shown by classes and sex in table 3(a) and by provinces in 3(b). Compared with 1922 there was an increase of 152 in the number employed on wages and of \$125,781 in the wages paid. Salaried officers on the other hand show a decrease of one in number but an increase in salary payment amounting to \$30,415, the net increase in employment over 1922 being 151 and in the amount paid for salaries and wages of \$156,196.

Table 3(a).— Employees by Classes, sex and Remuneration, 1923.

Classes of employment	No. of Employees		Total salary and wage payments \$
	Male	Female	
Salaried officers of corporations	26	2	30,473
General superintendents, managers, etc.	39	-	35,606
Technical experts (engineers, chemists, accountants, etc.)	17	2	29,066
Clerks, stenographers, salesmen and other salaried employees	73	34	133,554
Wage earners, average number	514	285	670,584
Total employees	669	323	999,283

Table 3(b).— Employees by provinces, sex and remuneration, 1923.

Provinces	No. of Employees		Total salary and wage payments \$
	Male	Female	
Maritime Provinces	39	14	47,026
Quebec	40	13	59,107
Ontario	535	259	789,211
Western Provinces	55	37	103,239
Canada, totals	669	323	999,283

EMPLOYEES BY MONTHS

The number of persons employed by months and the average employment for the year are shown in table 4. The maximum of employment was reached in September with a total of 1,267 persons, the minimum in January when it fell to 571.

Table 4.— Employees by months, 1923.

Months	No. of Employees		Months	No. of Employees	
	Male	Female		Male	Female
January	395	176	July	519	305
February	397	188	August	504	321
March	395	240	September	872	395
April	435	230	October	717	347
May	429	275	November	544	327
June	463	314	December	513	351
Total employment by months				6,173	3,419
Average yearly employment per months				514	285

OTHER LABOUR STATISTICS.

Statistics of operating time in plants and of their employees are shown in table 5 for the calendar year 1923. The seasonal nature of the industry is indicated by the time that plants were idle during the year, being more than one-third of the total working time. The average of days in operation, whether on full or part time, was 200.37 and the days idle numbered 103.13. Working time per employee averaged 9 hours per day and 51.66 hours per week.

Table 5.- Working time of Plants and Employees, 1923.

Items	Totals	Average per plant
Number of Operating plants	70	
Days in operation on full time	13,233	189.04
" " " " part time	528	11.53
Days plant were idle	7,219	103.13
Hours worked by employees -		
Per day or shift	630	9.00
Per week	3,616	51.66

FUEL CONSUMPTION

The quantity and cost value delivered at the factory of the various kinds of fuel used are shown in table 6 for the calendar year 1923. The total cost of all fuel aggregated \$113,645 of which coal of all kinds accounted for \$105,241 or 92.6 per cent.

Table 6.- Fuel Used, 1923.

Kinds of fuel	Unit of Measure	Quantity	Cost value at factory \$
Coal, bituminous	ton	13,598	100,270
" anthracite	"	323	4,362
" lignite	"	50	609
Coke	"	25	242
Gasoline	gallon	7,294	2,348
Oil (fuel)	"	100	20
Wood	cord	821	4,581
Gas, artificial and natural	n.c.ft.	1,390	804
All other, value only	-	-	409
Total fuel cost	-	-	113,645

POWER EMPLOYED

The statistics of installed power are shown by kinds in table 7. Electric motors supplied 60 per cent of the horse power used in the industry. The number of boilers installed was 18 with a boiler horsepower capacity of 2,462.

Table 7.- Power employed, 1923.

Classes of power	Number of units	Horsepower capacity
Steam engines and turbines	22	701
Oil and gasoline engines	9	69
Hydraulic turbines or water wheels	2	43
Electric motors operated by owned power	126	533
" " " " rented power	127	668
Totals	286	2,014

MISCELLANEOUS EXPENSES

The cost of miscellaneous expenses in 1923 amounted to \$949,037 and included rents, taxes, insurance, advertising and travelling expenses, postal, telephone, telegraph and express charges, office supplies, repairs to buildings and machinery, depreciation and sundry other items not mentioned. The increase in the outlay for miscellaneous or overhead over 1922 was \$110,081.

THE HISTORY OF THE  
CITY OF BOSTON

From the first settlement of the  
English in 1630 to the present time  
the city of Boston has been the seat  
of a government of great importance  
and has been the center of many  
important events in the history of  
the United States.

The city of Boston was founded  
in 1630 by a group of Puritan  
settlers who came from England  
and established a colony on the  
eastern shore of Massachusetts Bay.  
The city grew rapidly and became  
one of the most important cities in  
the New England region.

In 1780 the city was the site of  
the Battle of the Clouds, a battle  
between British and American forces.  
The battle was a tactical draw, but  
it was a significant event in the  
Revolutionary War.

The city of Boston was also the  
site of the Boston Tea Party in  
1773, a protest against British  
taxes on tea. The protesters  
boarded British ships and dumped  
tea into the water.

The city of Boston was also the  
site of the Boston Massacre in  
1770, a killing of five American  
colonists by British soldiers. The  
event was a major catalyst for the  
Revolutionary War.

The city of Boston was also the  
site of the Boston Convention of  
1780, a meeting of the delegates  
to the Continental Congress. The  
convention was held in the city  
because the Congress had fled from  
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THE STATE OF NEW YORK

IN SENATE

The quantity and value of the property of the State of New York, as shown by the returns of the assessors, for the year ending on the 31st day of December, 1900, is as follows:—

TABLE 1. PROPERTY OF THE STATE, 1900.

PROPERTY OF THE STATE	QUANTITY	VALUE	PERCENTAGE OF INCREASE OR DECREASE
Real Estate	1,000,000	\$1,000,000,000	100
Personal Property	1,000,000	\$1,000,000,000	100
Intangible Property	1,000,000	\$1,000,000,000	100
Other Property	1,000,000	\$1,000,000,000	100
Total	4,000,000	\$4,000,000,000	100

TABLE 2. PROPERTY OF THE STATE, 1900.

The quantity and value of the property of the State of New York, as shown by the returns of the assessors, for the year ending on the 31st day of December, 1900, is as follows:—

Real Estate

Personal Property

Intangible Property

Other Property

PROPERTY OF THE STATE	QUANTITY	VALUE	PERCENTAGE OF INCREASE OR DECREASE
Real Estate	1,000,000	\$1,000,000,000	100
Personal Property	1,000,000	\$1,000,000,000	100
Intangible Property	1,000,000	\$1,000,000,000	100
Other Property	1,000,000	\$1,000,000,000	100
Total	4,000,000	\$4,000,000,000	100

The quantity and value of the property of the State of New York, as shown by the returns of the assessors, for the year ending on the 31st day of December, 1900, is as follows:—



1010752614

(16)

THE FRUIT AND VEGETABLE PACKING INDUSTRIES IN CANADA, 1923.

MATERIALS USED

The quantity and the cost value delivered at the factory of the various classes of materials used in the industry during 1923 are shown in table 8. The total cost of materials increased over the previous year by \$224,073 or nearly 8 per cent. Aside from the cost of containers the next largest individual item of materials was alcohol, used largely in the manufacture of vinegar which amounted to 453,830 proof gallons of the value of \$329,354. Sugar comes next with a cost value of \$236,379. Vegetables aggregated \$357,701 and fruits \$151,799.

Table 8. Materials Used, 1923.

Materials used	Unit	Quantity	Cost value at factory \$
Apples	lb.	17,459,611	75,178
Other fruits, (value only)	-	-	76,621
Beans, white	lb.	1,789,979	89,860
Cabbages	"	1,764,761	6,786
Tomatoes	"	20,374,752	136,856
Cucumbers	"	3,298,153	74,777
Onions	"	829,538	21,361
Other vegetables (value only)	-	-	29,061
Alcohol	Pr.gal.	453,830	329,354
Vinegar	gal.	368,348	134,321
Vinegar stock and materials	"	209,136	85,942
Sugar	lb.	2,897,370	236,379
Salt	"	1,562,556	10,608
All other materials (value only)	-	-	312,001
Containers, etc. (value only)	-	-	1,284,353
Total cost of materials	-	-	2,904,468

IMPORTS AND EXPORTS

Table 9 gives the quantity and value of the imports and exports of the articles connected with this section of the industry. The quantity and value of the items in the table available for consumption<sup>1</sup> in Canada was as follows:-

Pickles	826,527	gallons	worth	\$1,220,904
Vinegar	4,447,690	"	"	1,365,363
Sauces, etc.	1,548,220	"	"	1,902,882
Cider	611,479	"	"	130,196

Table 9. Imports and Exports, Calendar year 1923.

Articles	Unit	Imports for Consumption		Exports of Canadian Produce	
		Quan.	Value \$	Quan.	Value \$
Pickles in bottles, jars, etc.	gal.	76,630	132,666	-	-
Pickles in bulk	"	10,837	8,170	-	-
Sauces and catsups in bottles	"	185,104	331,473	-	-
" " " in bulk	"	23,090	15,625	-	-
Sauces, soy	"	96,712	55,177	-	-
Vinegar, any strength not exceeding proof	"	138,942	60,612	47,499	19,805
Vinegar above strength of proof	"	12,494	2,258	-	-
Cider, not clarified or refined	"	700	132	78,678	13,980
Cider, clarified or refined	"	711	615	-	-
Total values imports and exports	-	-	606,772	-	33,785

<sup>1</sup> Note:- Consumption is reckoned by adding together the manufactured product and the imports and deducting therefrom the exports.