32-222

CANADA

DOMINION BUREAU OF STATISTICS CENSUS OF INDUSTRY

REPORT

on the

SUGAR INDUSTRY

STATISTICS STATISTICS CANADA GAMADA

2807 1 6 2010

BIBLIOTHEQUE

in

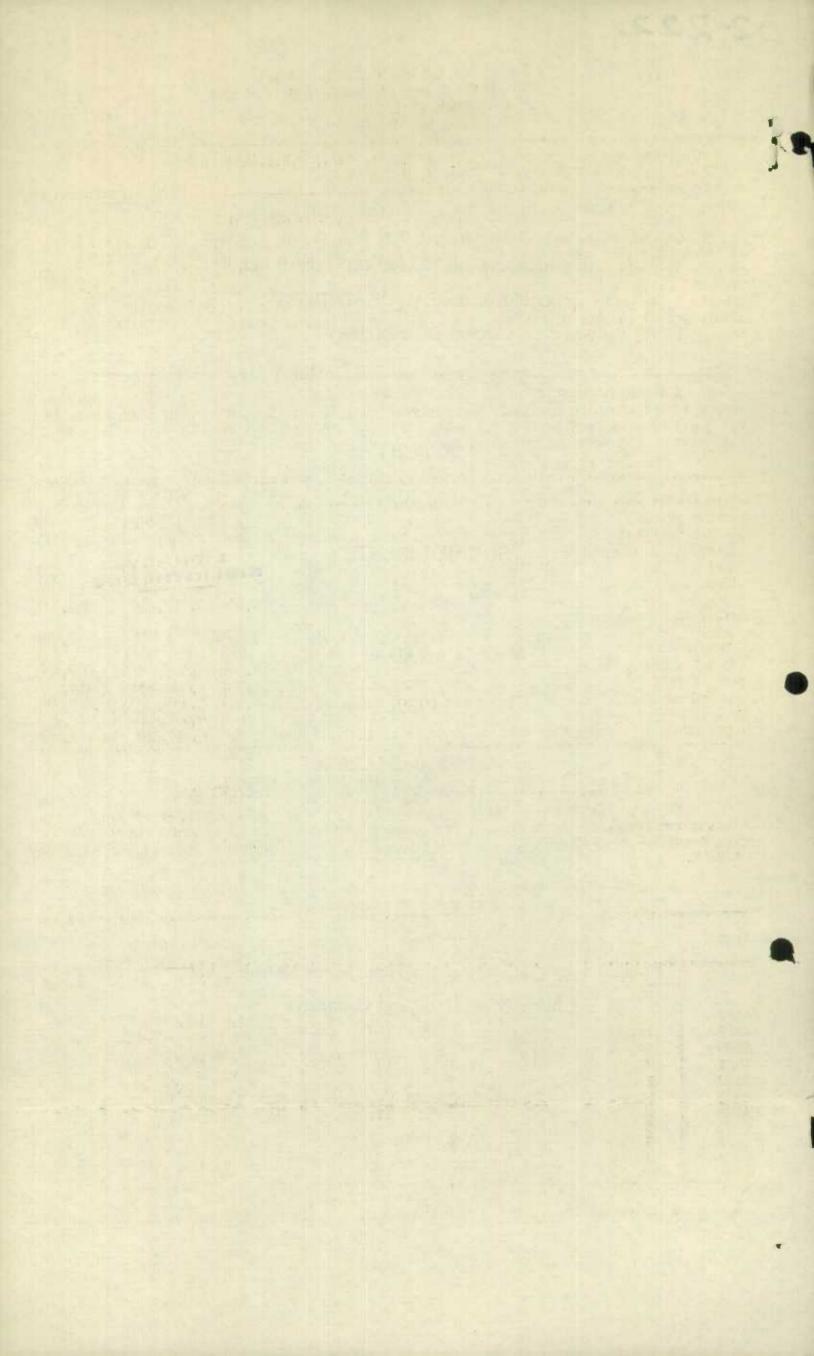
CANADA

1929

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

OTTAWA

1930



DEFARTMENT OF TRADE AND COMMERCE DOMINION BUREAU OF STATISTICS CENSUS OF INDUSTRY OTTAWA, CANADA

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

J. C. Machherson.

THE SUGAR REFINING INDUSTRY IN CANADA, 1929.

Ottawa, June, 1930. Statistics of the sugar refining industry in Canada for the calendar year 1929 are presented in this remort. The number of refineries reporting operations during the year were located as follows:— Ontario 2 (Chatham and Wallaceburg); Quebec 2 (both at Montreal); New Brunswick 1 (St. John); Nova Scotia 1 (Dartmouth); Alberta 1 (Raymond) and British Columbia 1 (Vancouver). In order that there may be no disclosure of statistical information regarding individual plants the statistics are shown only for the Dominion.

Principal Statistics Compared

A comparative study of the principal statistics relating to the industry is presented in the accompanying table for the past five years. Decreases from 1928 appear in the items of employees working for wages, the cost of fuel, the cost of materials used and also in the value of products.

Table 1. Principal Statistics Compared, 1925 - 1929.

		1929	1928	1927	1926	1925
Refineries	No.	8	g	8	g	g
Canital invested	\$	43,534,113	48,625,818	50,039,122	49,748,404	50,089,717
Amployees on salaries -						
Male	No.	246	239	290	299	303
Temale	No.	61	60	56		53
Total	\$	937,641	922,969			931,333
Employees on wages -						
Male	No.	1,916	1,979	2,253	2,458	2,325
Female	No.	102	103			103
Total wages	\$	2,748,396	2,748,117	2,845,592	2,965,922	2,897,109
Cost of fuel	\$	1,032,909	1,163,859			1,815,135
Cost of materials	\$	35,640,124			48,848,507	54,457,385
Gross value of products	\$	47,151,960	52,085,155	160,502,664	64,270,687	68,445,879
Value added by manufacture	\$	11,511,836	11,533,281	13,363,810	15,422,180	13,988,494

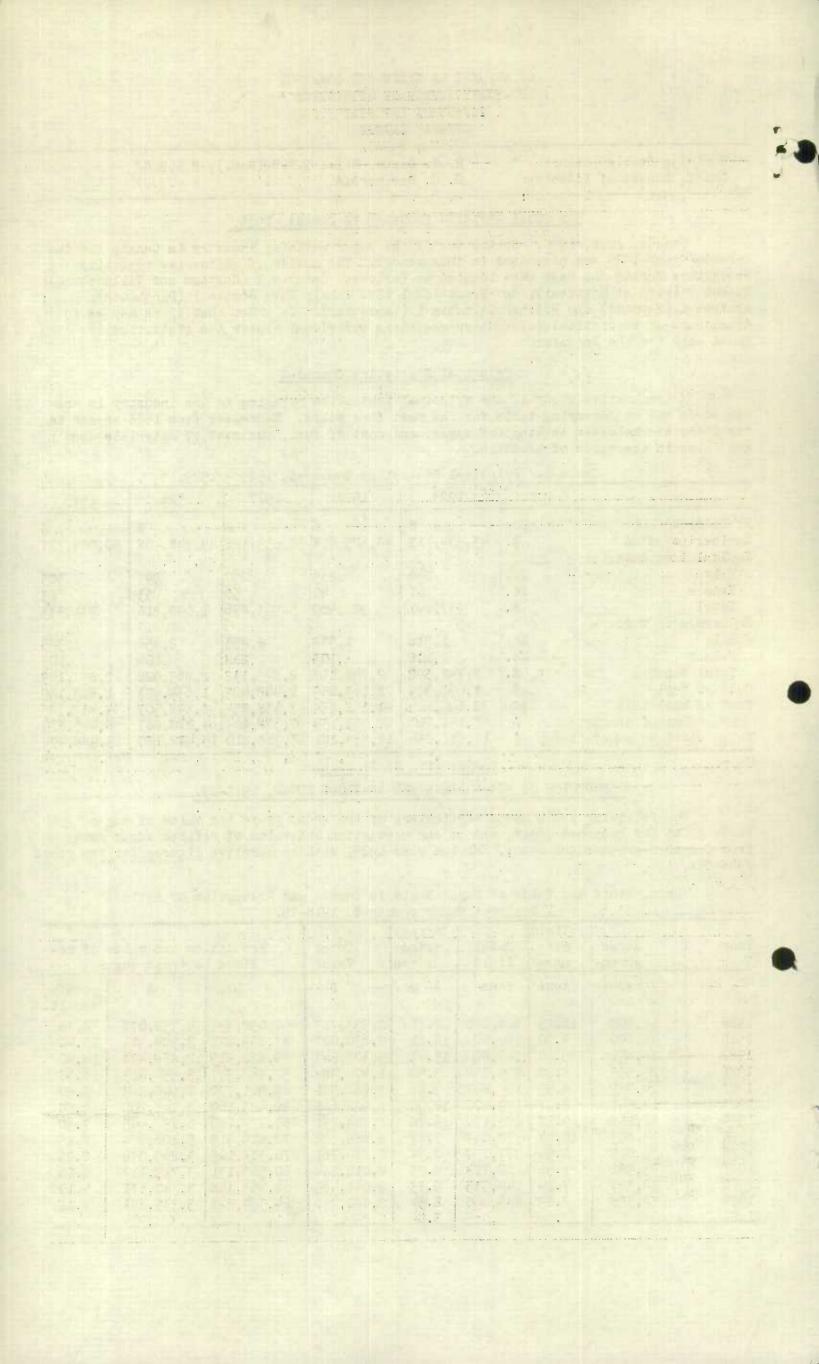
Comparative Statistics

TRODUCTION OF SUGAR BEETS AND BEETROOT SUGAR, 1918-29.

The following table gives particulars of the area, yield and value of sugar beets grown for beetroot sugar, and of the production and value of refined sugar made from Canadian-grown sugar beets, for the year 1929, with comparative figures for the years 1918-29.

Area, Yield and Value of Sugar Beets in Canada and Production of Refined Beetroot Sugar compared, 1918-29.

Year	Acres grown	Yield per acre	Total Yield	Average nrice ner ton	Total		ion and value bestroot suga	
	acres	tons	tons	\$ ¢	\$	Lb.	\$	cents per 1b.
1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929	18,000 18,600 34,491 25,535 14,955 17,941 31,111 34,803 30,073 25,961 34,323 32,556	11.25 9.50 9.94 7.80 8.55 8.87 9.50 10.63 8.90 7.96 7.14 7.23	204,000 180,000 343,000 199,334 127,807 159,200 295,177 370,047 267,754 206,713 244,930 235,465	12.71 14.61 15.47 9.90 7.56 12.08 5.78 7.27 8.54 9.73 8.33 8.84	2,593,715 2,630,027 5,307,243 1,974,384 966,521 1,922,668 1,704,791 2,688,302 2,286,761 2,012,134 2,041,465 2,080,996	50,092,835 37,839,271 89,280,719 52,862,377 29,911,770 39,423,160 85,770,709 72,819,919 70,388,105 60,969,131 64,653,348 69,399,213	4,358,077 3,924,411 12,856,424 3,554,203 1,645,885 3,745,200 6,192,645 5,206,624 4,269,076 3,719,117 3,340,571 3,335,344	8.70 10.40 14.40 6.70 5.50 9.50 7.30 7.15 6.06 6.10 5.17 4.81



Comparative Froduction and Consumption of Sugars

A comparative study of the production and consumption of sugars in Canada for the past five years by classes; quantity and value is presented in Tables 2(a) and 2(b). Consumption of any quantity is computed on the basis of production plus imports less exports. The per capita consumption of sugar of all kinds by quantity and value based on

	estimated nonulation is shown for each year of the period covered by the report.								
	Table 2(a), Production of Sugars, 1925-1929.								
Kind of sugar		1929	1928	1927	1926	1925			
Granulated sugars - Made from cane Made from beets Total Value	Lb.	767,307,78 6 69,399,213 41,756,126	64,653.348	811,084,788 60,969,131 53,808,350	943,802,519 70,388,105 56,780,393	970,008,781 72,819,919 60,093,130			
Soft sugars from cane Value of soft sugar	Lb.	95,194,213 4,403,782		107,079,213		128,667,990			
Total production all sugars Total value, all sugars	Lb.		927, 616, 884	979 ,133,13 2 59 , 718,424	1,138,781,739	1,171,496,690			
	T	able 2(b).	Consummtion o	f Sugars, 192	5–1929.				
Sugar production plus	Lb.	931,901,212	927,616,884	979,133,132 59,718,424	1,138,781,739 63,207,131	1,171,496,690 66,983,488			
Sugar imports Value	Lb.	41,593,500 1,254,373	46,034,100 1,728,550	34,822,300 1,594,438	30,550,386 1,090,188	17,719,936 766,717			
To tal	Lb.	973,494,712	973,650,984 53,031,147	1,013,955,432 61,312,862	1,169,332,125 64,297,319	1,189,216,626 67,750,205			
Less Sugar exports Value	Lb.	28,531,000 1,407,349	48,140,300 2,444,524	195,752,100 8,933,619		305,373,500 19,117,527			
Sugar available) for consumption)	Lb.	944,963,712 46,006,932	925,510,684 50,586,523	818,203,332 52,379,243	874,117,525 48,306,525	883,843,126 48,632,678			
Per capita)	Lb.	96.46	95.82	85.95	93.09	94.38			

Sugar Beet Production, 1925-1929.

5.24

4.70

\$

consumption)

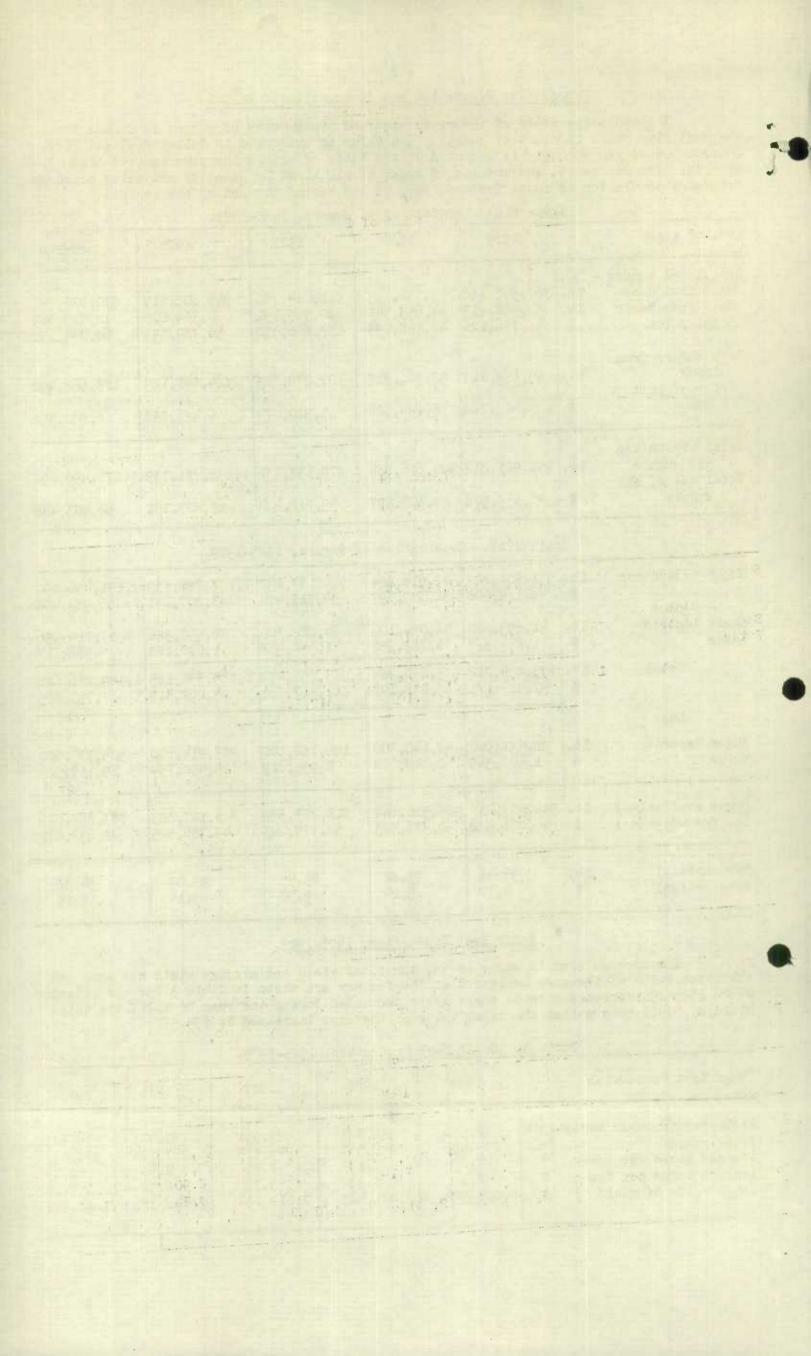
5.50

5.14

5.19

The acreage sown to sugar beets, the total yield and average yield per acre and the total value of the crop delivered at the factory are shown in Table 3 for the calendar years 1925-29. Acreage sown to sugar beets decreased during the year by 1,767, the total yield by 9,465 tons whilst the total value of the crop increased by \$39,531.

Table 3.	Sugar Beet	Production,	1925-1929.		
Sugar Beet Production	1929	1928	1927	1926	1925
Area sown to sugar beets Acre Total yield Ton Average yield mer acre Average value per ton Total value of yield \$	32,556 235,465 7.23 8.34 2,080,996	34,323 2144,930 7.14 8.33 2,041,465	25,961 206,713 7.96 9.73 2,012,134	30,073 267,754 8.90 8.54 2,286,761	34,803 370,047 10.63 7.27 2,688,302



Production in Sugar Refineries, 1929.

Table 4 gives the production of sugar and its by-products by class, quantity and selling value at the refinery for the calendar year 1929. The quantity of refined granulated sugars produced in Canadian refineries during 1929 was greater than that of 1928 by 6,856,432 lbs. whilst the value was less/4,401,967. Of this increase in quantity cane sugars alone contributed 2,110,567 lbs. and beet sugar 4,745,865 lbs. making the total increase as stated above. Syrups manufactured show an increase of \$11,988, in value and molasses an increase of \$176,603. Of the 8 refineries reporting one showed a value of production of less than a million dollars, one showed a production of less than five millions, and six a production from five to under ten millions.

Table 4. Sugar Production, 1929.

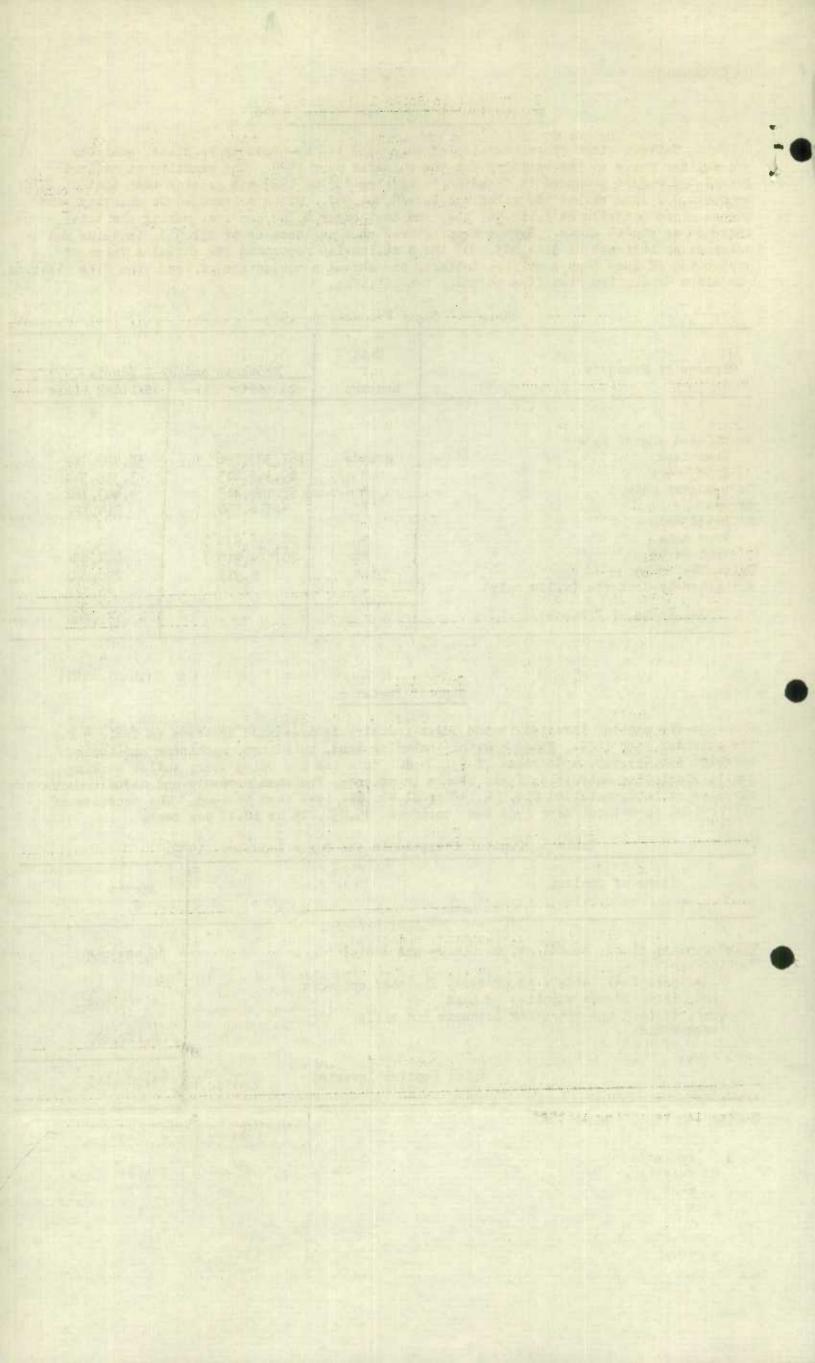
Classes of Products	Unit	Products and By-Products			
	Measure	Quantity	Selling Value		
			\$		
Granulated sugars made -					
From cane	pounds	767,307,786	38,420,782		
From beets	H	69,399,213	3,335,344		
Soft sugars made	II.	95,194,213	4,403,782		
Syrups	ff.	5,316,550	214,121		
Molasses made -					
From cane	11	25,636,834)			
From beets	11	20,524,919)	454,934		
Oried beet pulp	ton	8,917	296,270		
All other by-products (value only)	-	-	26,727		
Total Value of Products	-		47,151,960		

Capital Invested

The capital invested in the sugar industry is presented by items in Table 5 for the calendar year 1929. Fixed capital including land, buildings, machinery and tools totalled \$26,593,965, a decrease of \$3,624, from the preceding year, whilst working capital including materials, fuel, stocks in process, finished products and miscellaneous supplies on hand, totalled \$16,940,148 or \$1,466,991 less than in 1928. The decrease of all capital investment over 1928 was therefore \$5,091,705 or 10.47 per cent.

Table 5. Capital Invested in the Sugar Industry, 1929.

Items of Capital	Amount \$
Fixed capital (land, buildings, machinery and tools) Working capital -	26,593,965
Materials, fuel, stocks in process, finished products and miscellaneous supplies on hand Cash, trading and operating accounts and bills	8,757,908
receivable	8,182,240
Total Capital Invested	43,534,113



Employment Statistics.

Employment in the sugar industry for the calendar year 1929 is presented in the following series of tables:

> Employment by classes, number, sex and remuneration. Table b.

Table 7. Employment by months. Table 8. Working time of plant Working time of plants and employees.

Table 9. Hours worked by wage-earners in month of highest employment.

Table 10. Hours of labour per day and per week.

The total number of persons at employment during 1929 was 2,325 compaising 2,162 males and 163 females, a decrease from 1928 of 56 all males - representing a decrease in employment of 2.35 per cent. The cost of salaries and wages increased from a total of \$3,671,086 in Salaries increased by \$14,672 or 1928 to \$3,686,037 in 1929 or .47 per cent. 1.6 per cent and wages by \$279. The average cost of salaries fell from \$3,087 in 1928 to \$3,054 in 1929 or a decrease of 1.07 per cent, whilst the average wage rose from \$1,320 in 1928 to \$1,362 in 1929 or 3.2 per cent. The average employment per factory was 298 in 1928 as compared with 292 in 1929. Classified according to average annual employment one of the eight factories employed less than 100 persons, two employed from 100 to 300 persons (average 204) and five plants employed over 300 persons (average 369).

Table 5. Employees, by classes, number, sex and remuneration, 1929.

22010 01 210010						
	Person	is employed	Salaries and			
Classes of Employment	Male	Female	Wages			
		TE HE HE	\$			
Salaried employees Wage-earners, average number	2 45 1,916	61 102	937,641 2,748,396			
To tal	2,162	163	3,686,037			

The number of persons employed on wages is shown by months and sex in Table 7. The maximum of employment was reached in October with a total of 2,797 and the minimum in January with a total of 1,289. The average monthly employment during the year was 2,018 of whom 1,916 were males and 102 females.

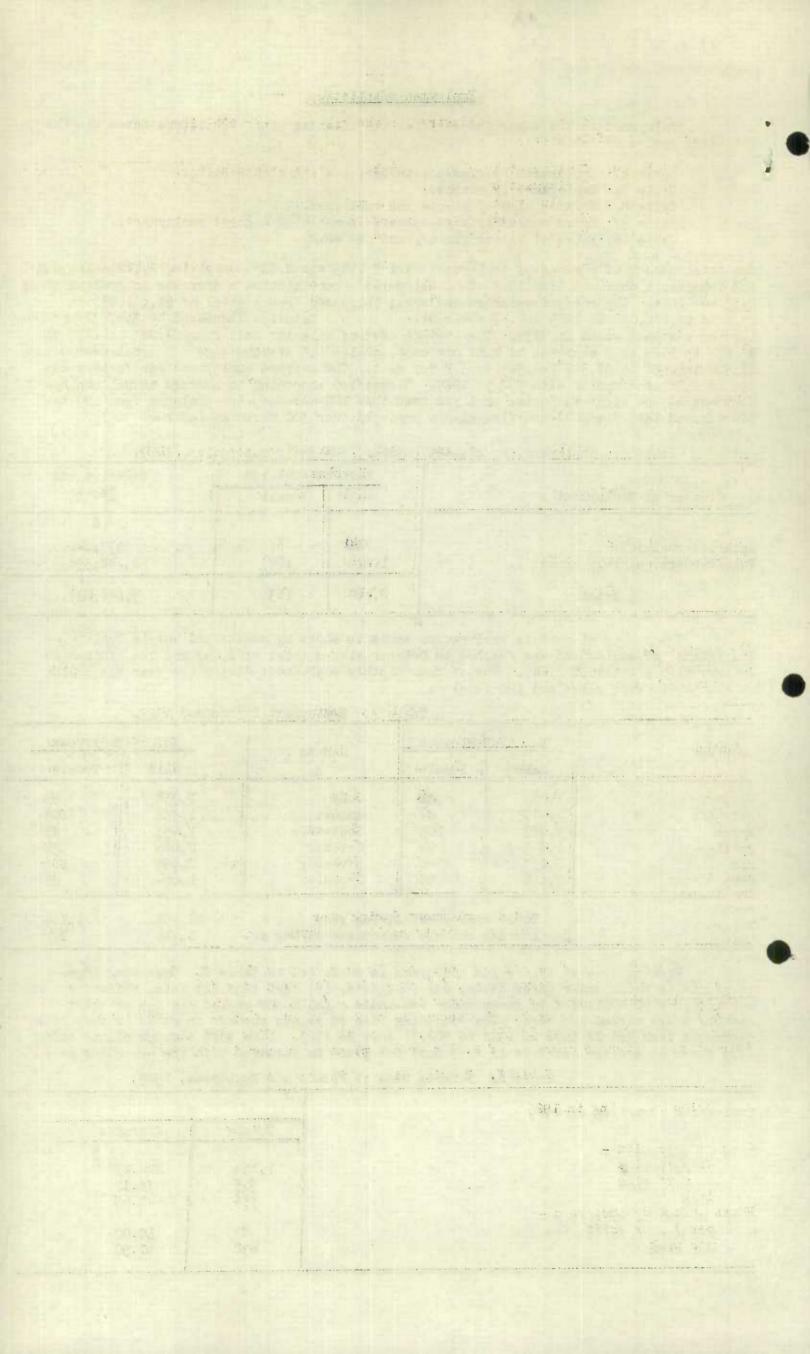
Table 7. Employment by months, 1929.

15-441-	No. of I	Employees	Months	No. of Employees		
Months	Male	Female	Months	Male	Female	
January February March April May June	1,233 1,449 1,859 1,845 2,153 1,618	.56 87 105 94 102 95	July August September October November December	1,938 1,988 1,953 2,666 2,599 1,684	99 109 85 131 116 95	
		_	during year mployment during yr	22,895	1,174	

Working time of plants and employees is presented in Table 8. Operating time in plants is shown under three heads, (a) full time, (b) part time (c) idle, while the working time of employees is shown under two heads - (a) hours worked per day or shift and (b) hours worked per week. The operating time of plants whether on whole or part time decreased from 265.12 days in 1928 to 262.37 days in 1929. Time lost through plants being idle shows an average decrease of 2.75 days per plant as compared with the preceding year.

Table 8. Working Time of Plants and Employees, 1929.

Refineries reporting in 1929	8		
	Totals	Averages	
Days in operation - On full time on part time idle	1,794 305 333	224.25 38.12 41.63	
Hours worked by employees - per day or shift per week	80 492	10.00 61.50	



Employment Statistics - Continued.

The number and the percentage of wage-earners in month of highest employment working specified hours per day is shown in Table 9, for Canada and the provinces. From a study of the table it will be seen that in the sugar industry the hours of labour predominating were the 10 hour and over 10 hour day in Canada, New Brunswick, Quebec and Ontario; the 9 hour day in Nova Scotia and British Columbia and the 8 hour day in Alberta. The percentage of wage-earners in the Dominion working 8 hours per day or less was 12.49 for those working 9 hours 16.87 whilst for those working 10 hours and over per day it was 70.64.

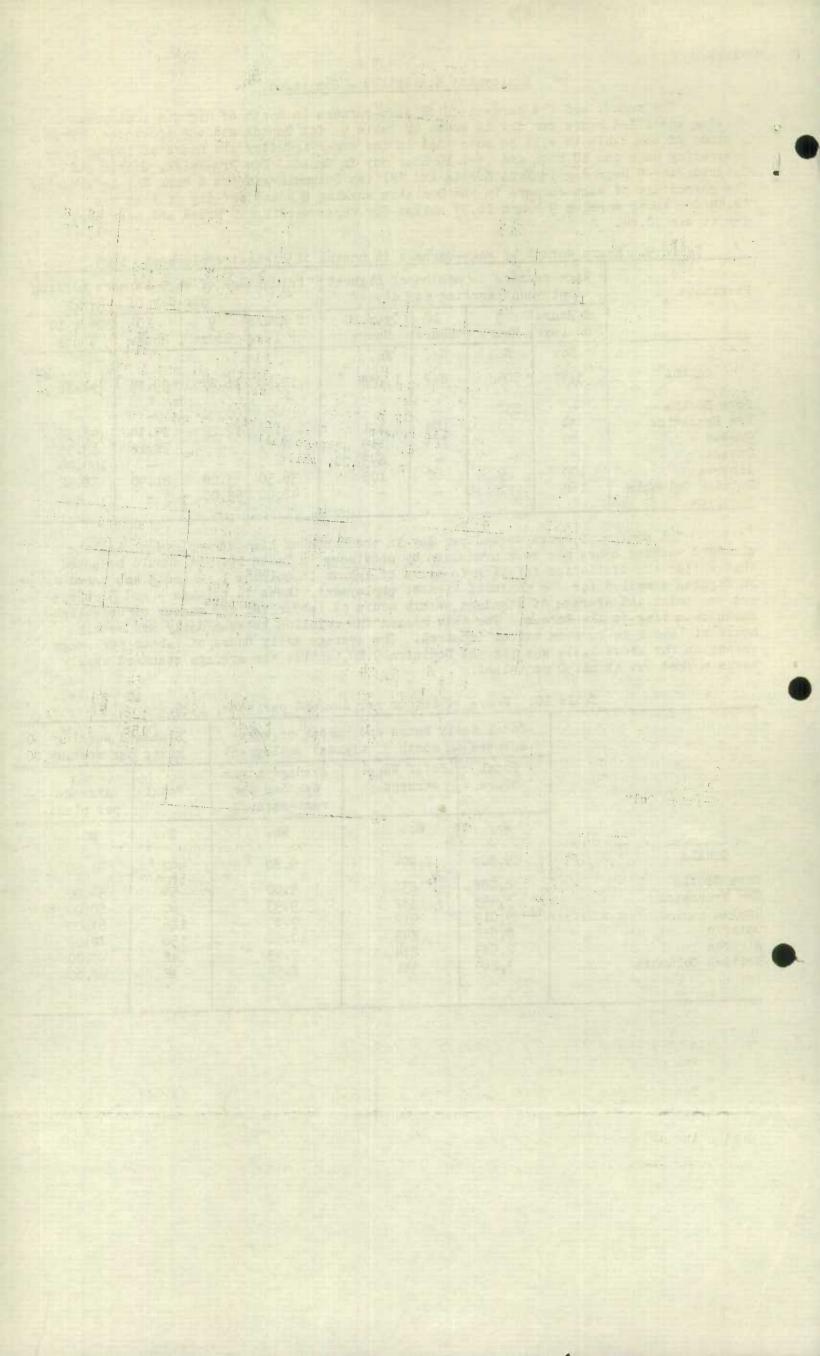
Table 9. Hours worked by wage-earners in months of highest employment, 1929.

Provinces	Wage-earners in months of highest employment working per day of			Percentage of wage-earners working per day of				
	8 Hours or less	9 Hours	10 Hours	Over 10 Hours	8 Hours or less		10 Hours	Over 10 Hours
	No.	No.	No.	No.				
CANADA	374	505	877	1,238	12.49	16.87	29.29	41.35
Nova Scotia New Brunswick Quebec Ontario Alberta British Columbia	34 80 100 160	232 43 - - 9 221	104 713 60	171 119 843 105	9.66 8.77 36.50 42.00	100. 0 12.22 - 3.28 58.00	29.54 78.18 - 21.90	48.58 13.05 100.00 38.32

The number of hours worked per day in the month of highest employment and the standard working hours per week are shown by provinces in Table 10. It should be noted that whilst the statistics relating to hours of labour in columns 1, 2 and 3 are based on figures compiled for the month of highest employment, those in columns 4 and 5 represent the total and average of standard weekly hours of labour for the number of establishments reporting to the Bureau. For this reason the relation between daily and weekly hours of labour is to some extent impaired. The average daily hours of labour per wage earner on the above basis was for the Dominion 9.80, whilst the average standard weekly hours worked out at 61.50 per plant.

Table 10. Hours of Labour per day and per week, 1929.

		ily hours and r	Standard working hours per week.			
	Total hours	Total Wage- earners	Average hours per day per wage-emrners	Total	Average per plant.	
	No.	No.	No.	No.	No.	
CANADA	29,306	2,994	9.80	492	61.50	
Nova Scotia New Brunswick Quebec Ontario Alberta British Columbia	2,088 3,495 9,019 8,852 2,583 3,269	232 352 912 843 274 381	9.00 9.93 9.89 10.50 9.43 8.58	54 60 126 156 48 48	54.00 60.00 63.00 78.00 48.00 48.00	



Fuel Consumption

The quantity of the classes of fuel used and the value laid down at the works is shown in Table 11 for the calendar year 1929. The principal fuels used were bituminous coal and fuel oils, both of which show decreases in quantity and value when compared with 1928. The total cost of all fuel for the year amounted to \$1,032,909, a decrease from the preceding year of \$130,950 or approximately 11.25 per cent.

Table 11. Fuel used by classes, 1929.

Classes of Fuel	Unit -of Measure	Quanti ty	Cost of delivered at works
			\$
Bituminous coal, Canadian " " Imported	Short ton	107,431 62,780	383,665 25 8,2 66
Anthracite coal	11 11	21	274
Coke	H H	2,759	20,768
Kerosene or Coal oil	Imp. Gal.	-	•
Gasoline	11 11	132	39
Fuel and diesel oil	11 11	9,479,184	368,261
Gas, manufactured	M.C. Ft.	1,567	1,636
Total Cost of Fuel	-	-	1,032,909

Power Installation

Power installation in the sugar industry is presented in Table 12 by classes, the number of units in each class and the horsepower according to manufacturers' rating, Primary power comprising 89 steam engines and turbines with a total of 13,474 horsepower. Electric motors operated by purchased power were 272 in number aggregating 6,065 horsepower while of those operated by power generated by the establishment, the number was 885 with a rated h.p. of 12,609 making a total developed electrical horsepower of 18,674. The number of boilers installed for all purposes was 69 with a rated boiler horsepower capacity of 40,710. The cost of electricity purchased was 97,249.

Table 12. Power installed by classes, 1929.

Classes of Power	Number Horsepower according to of Units manufacturers rating		
Steam engines and turbines Oil, gas and gasoline engines Total primary power	8 9 - 89	13,474	
Electric motors operated by purchased power	272	6,065	
Total power used in manufacturing	361	19.539	
Electric motors operated by power generated by the establishments	885	12,609	1
Total electric motor installation,	1,157	18,674	1
Boiler installation for any purpose	69	40,710	

The English Leaf in the second of the second Tests 1203-11 (00)

Materials Used

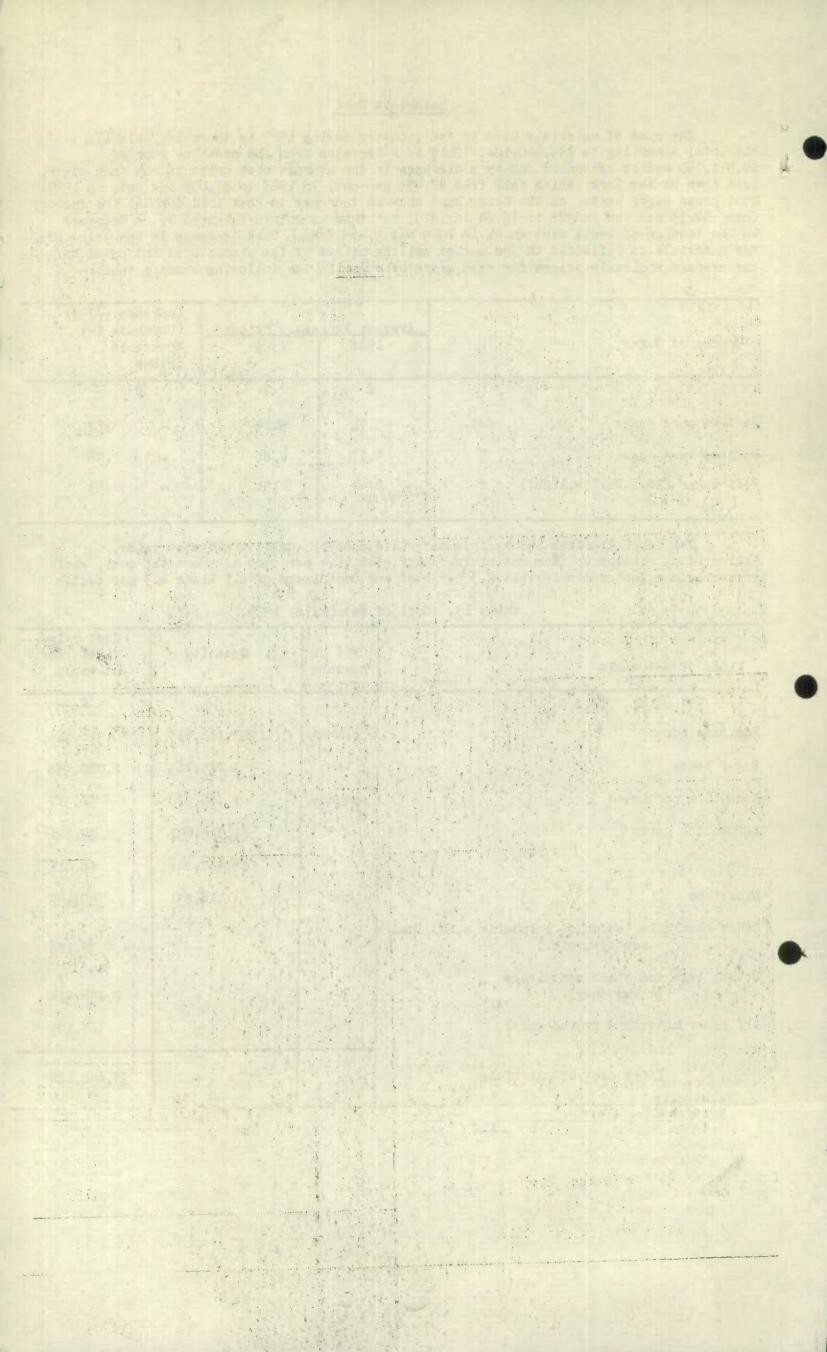
The cost of materials used in the industry during 1929 is shown in Table 13, the total amounting to \$35,640,124. This is a decrease from the previous year of \$4,911,750 and is accounted for by a decrease in the average cost price of raw cane sugar, laid down at New York, which fell from \$2,456 per cwt. in 1928 to \$2,005 per cwt, in 1929. Home grown sugar beets on the other hand show an increase in cost laid down at the factory from \$8.33 per ton in 1928 to \$8.84 in 1929, but this is counterbalanced by a decrease in the tonnage of beets used which in 1929 was 9,465 tons. This decrease in the price of raw materials is reflected in the market selling prices of the products as indicated by the average wholesale prices for each grade of sugar in the following summary table:-

Grades of Sugar		Average Whol	esale Prices	Increase (+) or Decrease (-) Wholesale prices	
		\$	\$	\$	
Refined cane sugar	Cwt.	5.71	5.19	52	
Refined beet sugar	n	5.17	4.81	36	
Soft sugar (No.1 Yellow, light)	u	, 5.44	4.91	53	

The table itemizes the various materials used by quantity and cost value, delivered at the works. Raw materials constituted 91.4 per cent of the total cost, whole or partly manufactured materials 2.3 per cent and containers of all kinds 6.3 per cent.

Table 13. Cost of Materials, 1929.

Kinds of Materials	Unit of measure	Quantity	Cost value delivered at works
			\$
Raw cane sugar	pounds	907,666,513	30,456,514
Sugar beets	ton	235,465	2,080,996
Boneblack purchased	pounds	1,780,670	96,317
Infusorial earth	11	1,365,651	39,821
Lime	π	16,537,246	76,018
Limestone	ton	16,831	40,159
Other chemicals (sulphur, sulphuric acid, lead acetate, etc.)	-		30,186
Boxes, bags and other containers (value only)	-		2,254,914
All other materials (value only)	-		565,199
Total cost of materials	-	-	35,640,124

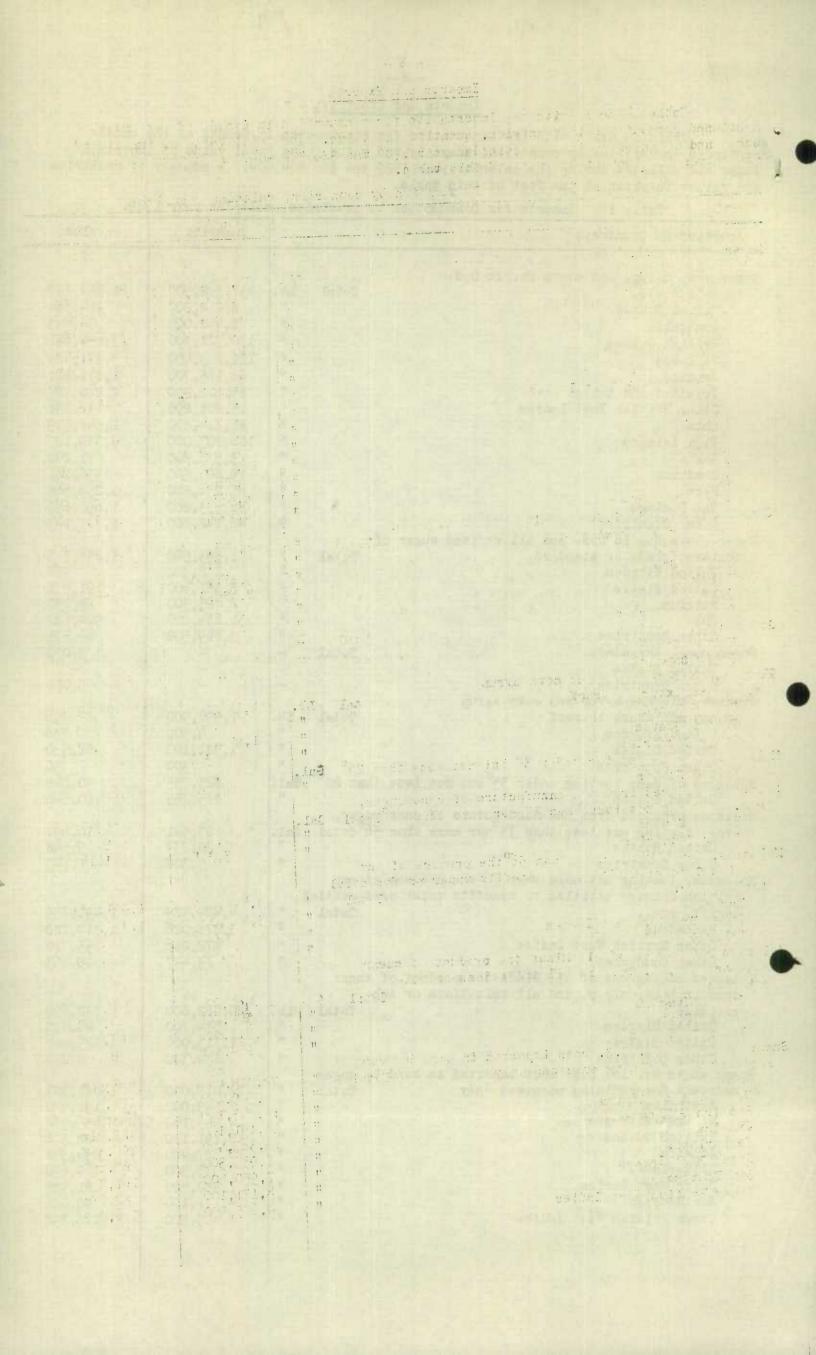


Imports and Exports

Table 14 deals with the importation for consumption in Canada of the undermentioned commodities by countries, quantity and value. The total value of imports of sugar and molasses during the calendar year 1929 was \$26,804,404. A summary by countries and values is given at the foot of this table.

Table 14. Imports for Consumption by countries, calendar year 1929.

Table 14. Imports for Consumption by countr	ies,	calendar year 1	929.
Articles by Countreis		Quantity	Value
			\$
Sugar raw, n.o.p. not above No. 16 D.S.	* %	277 760 000	21 217 700
in colour etc. Total	Lb.	837,362,900	21,217,788
United States		6,012,200	114,384
Australia	11	1,440,000	34,443
British Guiana	- 11	130,921,400	3,640,851
Barbados	14	121,879,400	3,271,423
Jamaica	Ħ	66,165,700	1,811,221
Trinidad and Tobago	u	85,612,400	2,260,727
Other British West Indies	11	15,801,200	432,291
Cuba	H	81,714,800	1,548,519
Fi ji Islands		106,707,000	3,379,123
Hayti	11	3,535,800	71,240
Honduras	11	19,600,500	336,161
Peru	11	65,256,500	1,255,565
San Domingo	M	86,573,200	1,690,693
Other Countries	Ħ	46,142,800	1,371,147
Sugar above No. 16 D.S. and all refined sugar of		w _q	
whatever grade or tandard, Total	Ħ	41,593,500	1,254,373
United Kingdom	11	2,900	352
United States	11	5,381,600	191,578
Belgium	Ħ	2,725,300	88,250
Cuba	11	31,234,200	904,622
Other Countries	11	2,249,500	69,571
Sugar cane, shredded Total	-	-	3,050
United States	-	-	
Other Countries	-	-	3,050
Glucose, glucose syrup and corn syrup			
or any admixture thereof Total	Lb.	1,990,900	82,296
United Kingdom	11	9,500	736
United States	- 11	1,981,100	81,530
Other Countries	n.	300	30
Molasses of cane testing under 35° but not less than 20°	Bal .	825,755	90,548
United States	11	825,755	90,548
Molasses produced from the manufacture of cane sugar,			
etc, testing not less than 35 nor more than 56 Total	Gal .	23,541	10,691
United States	10	20,233	9,548
Other Countries	11	3,308	1,143
folasses, testing not more than 56 the produce of any			
British Country entitled to benefits under preferentia	I		
tariff, etc. Total	11	4,424,489	1,491,759
Barbadoes	H H	3,878,026	1,317,786
Other British West Indies	11	472,016	155,710
Other Countries	11	74,447	18,263
Molasses and syrups of all kinds the product of sugar		SE 11 1 12 190	
cane or beet, n.o.p. and all imitations or sub-		T Manual Company	
stitutes Total	Lb.	28,462,000	772,692
United Kingdom	11	574,700	44,593
United States	ff .	27,713,000	725,817
Other Countries	п	174,300	2,282
Sugar above No. 16. D.S. when imported in bond by sugar			
refiners for refining purposes only Total	11	72,015,000	1,881,207
Australia	Ħ	7,549,000	191,942
British East Africa	11	14,245,100	453,967
British Guiana	- 11	15,191,100	422,516
Jamaica	- 11	10,367;400	294,348
Netherlands	H	7,935,300	160,690
Dutch East Indies	11	7,950,500	161,366
San Domingo	11	4,171,100	80,086
Other British West Indies	H	4,605,500	116,292



Imports and Exports - Con'd.

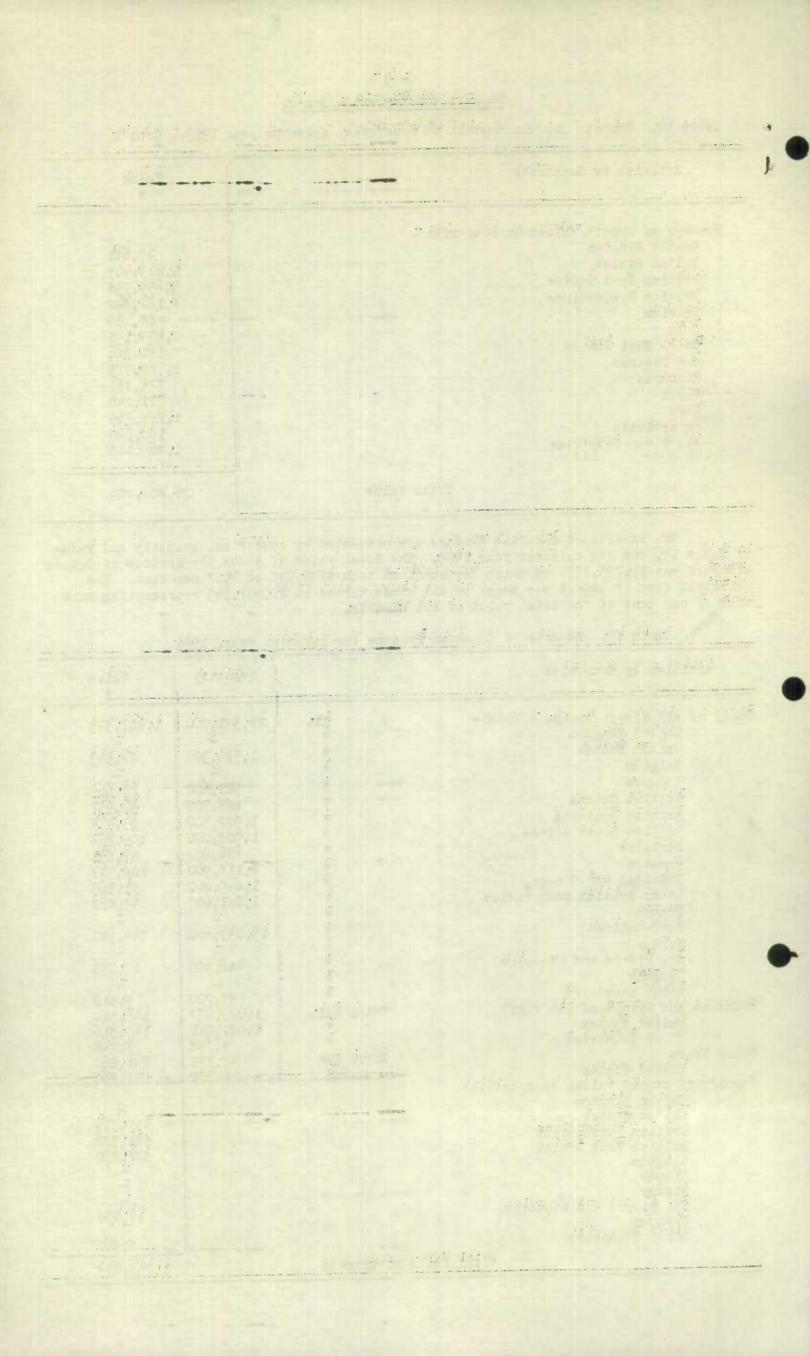
Table 14. Imports for consumption by countries, calendar year 1929 .- Cont'd.

Articles by Countries	Value \$
Summary of import values by countries - United Kingdom United States British West Indies British Possessions Belgium Cuba Dutch East Indies San Domingo Honduras Hayti Peru Netherlands All Other Countries	45,681 1,213,405 9,659,798 8,122,842 88,250 2,453,141 161,366 1,770,779 336,161 71,240 1,255,565 160,690 1,465,486
Total Value	26,804,404

The exports of Canadian produce are presented by countries, quantity and value in Table 15, for the calendar year 1929. The total value of goods the produce of Canada exported was \$1.795,773, of which Newfoundland took \$749,597 or 41.7 per cent. The principal item of export was sugar of all kinds valued at \$1,407,349 representing more than 78 per cent of the total value of all exports.

Table 15. Exports of Canadian Produce for calendar year, 1929.

Articles by Countries	Quantity	Value \$
Sugar of all kinds, n.o.p Totals United Kingdom United States Belgium Bermuda British Guiana British Honduras British South Africa Barbados Jamaica Trinidad and Tobago Other British West Indies France Newfoundland Norway St. Pierre and Miquelon Uruguay Other Countries Molasses and syrups of all kinds United States Other Countries	28,531,000 1,564,900 588,600 688,700 1,902,800 1,908,000 606,600 2,118,900 1,649,200 1,649,200 1,881,600 15,037,600 486,900 97,200 1,025,833 1,021,041 4,792	1,407,349 74,543 22,665 32,957 93,478 105,894 27,891 102,547 81,265 93,862 749,597 17,038 5,612 146,564 143,316 3,248
Sugar beets United States Summary of export values by countries United Kingdom United States British Possessions British West Indies Belgium France Norway St. Pierre and Miquelon Uruguay Other Countries Total Value of Exports	42,772 42,772	241,860 241,860 459,719 981,926 328,230 17,038 8,860 1,795,773



Sugar Refineries, 1927.

Name

Acadia Sugar Refining Co. Ltd.,
Atlantic Sugar Refineries, Ltd.,
The Canada Sugar Refining Co. Htd.,

St. Lawrence Sugar Refineries, Ltd.,

Dominion Sugar Co. Ltd.,

Dominion Sugar Co. Ltd.,

Canadian Sugar Factories, Ltd.,

The British Columbia Sugar Refining Co. Ltd.,

Address

Hollie St., Halifax, N.S.

St. John, N. B.

150 Montmorency St., Montreal, P.Q.

Maisonneuve, (Montreal), P. Q.

Chatham, Ont.

Wallaceburg, Ont.

Raymond, Alta.

Rogers St., Vancouver, B.C.

