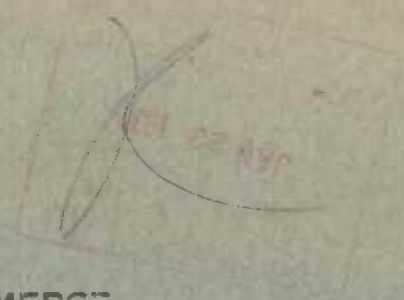


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CANADA
DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS
CENSUS OF INDUSTRY
MINING, METALLURGICAL & CHEMICAL BRANCH

THE
FERTILIZER INDUSTRY
IN
CANADA
1935

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DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS
MINING, METALLURGICAL AND CHEMICAL BRANCH
OTTAWA - CANADA

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ANNUAL INDUSTRY REPORT

CHEMICALS AND ALLIED PRODUCTS GROUP

THE FERTILIZER MANUFACTURING INDUSTRY, 1935.

Production from plants in Canada engaged primarily in the manufacture of fertilizers was valued at \$6,075,616 in 1935, an improvement of 11 per cent over the \$5,467,154 of 1934. In addition to the above, certain fertilizer materials such as calcium cyanamide, ammonium sulphate, animal tankage, fish fertilizers, etc., were made in establishments classified to other industries; production of fertilizers by these concerns amounted to \$175,071 tons valued at \$3,914,621 in 1935 as against \$155,511 tons at \$3,018,148 in 1934.

Only 19 plants in Canada produced fertilizers as their major product during the year under review: 7 were in Ontario, 3 in New Brunswick, 3 in Quebec, 3 in British Columbia, 2 in Nova Scotia and 1 in Prince Edward Island. Capital employed in these plants increased slightly to \$15,646,828 from \$15,452,733. The number of workers advanced to 996 from 776 and salaries and wages to \$1,239,357 from \$946,178 in 1934.

Total production of mixed fertilizers in 1935 was 145,844 tons worth \$3,442,017 at the factories, this total including 132,851 tons at \$3,121,510 made by plants in the fertilizer industry and 12,993 tons at \$320,507 made in the slaughtering and meatpacking plants and glue factories. In 1934 the corresponding total was 138,750 tons at \$3,517,193 and in 1933, 106,421 tons at \$2,777,702.

Superphosphate was manufactured by only 2 companies but in 4 different plants located as follows: Beloeil, Quebec, Hamilton, Ontario, New Westminster, B. C., and Trail, B. C.

Imports and exports of fertilizer materials are shown in Table 12.

A special survey of the fertilizer trade in Canada during the fiscal year ending June 30, 1936, has been made by the Dominion Bureau of Statistics at Ottawa and the results have been published in a special report which may be had upon application to the Bureau. Summary figures on the sale of fertilizers have been reprinted in Tables 13 and 14 of this bulletin.

Table 1 - PRINCIPAL STATISTICS OF THE FERTILIZER MANUFACTURING INDUSTRY, 1920 - 1935.

Years	No. of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity	Cost of materials at works	Selling value of products at works
		\$		\$	\$	\$	\$
1920	16	3,839,923	402	437,438	51,436	2,388,818	3,788,027
1921	15	3,209,240	274	369,653	46,039	1,696,205	2,677,735
1922	17	3,935,467	343	348,879	42,353	1,098,230	1,981,478
1923	18	3,616,001	329	310,441	39,638	831,470	1,487,244
1924	14	2,072,488	166	159,310	24,872	730,158	1,277,145
1925	13	2,095,608	201	205,173	21,369	1,045,294	1,437,787
1926	12	1,891,054	221	210,427	18,501	1,047,641	1,449,589
1927	12	1,998,811	233	224,564	14,736	1,200,030	1,844,032
1928	12	2,131,905	251	281,109	21,139	1,446,800	2,189,986
1929	12	2,991,783	251	265,650	17,386	1,450,253	2,258,780
1930	14	4,139,498	261	262,928	18,889	1,647,478	2,504,573
1931	18	15,615,119	636	848,256	44,972	3,053,016	4,251,840
1932	19	17,083,478	748	1,097,812	49,010	2,616,333	4,006,187
1933	20	15,918,787	667	776,647	322,849	2,796,726	4,286,051
1934	20	15,452,733	776	946,178	348,716	3,647,660	5,467,154
1935	19	15,646,828	996	1,239,337	344,131	4,362,594	6,075,616

Table 2 - PRINCIPAL STATISTICS, BY PROVINCES, 1934 and 1935.

Provinces	No. of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity	Cost of materials at works	Selling value of products at works
		\$		\$	\$	\$	\$
1934							
New Brunswick	3	639,406	73	66,763	1,690	347,365	560,972
Quebec	4	1,175,309	66	79,282	4,748	523,308	763,911
Ontario	7	2,001,999	205	228,271	8,550	1,025,049	1,683,751
British Columbia	3	10,898,300	362	509,912	328,617	1,333,334	1,874,121
Prince Edward Island.	1)						
Nova Scotia	2)	737,719	70	61,950	5,111	418,604	584,393
CANADA	20	15,452,733	776	946,178	348,716	3,647,660	5,467,154
1935							
New Brunswick	3	746,450	69	64,095	1,695	401,739	620,514
Quebec	3	655,401	85	96,390	4,585	526,239	713,551
Ontario	7	2,447,671	287	278,718	8,352	1,264,632	1,798,594
British Columbia	3	11,059,264	470	713,061	324,444	1,710,739	2,288,749
Prince Edward Island.	1)						
Nova Scotia	2)	738,042	85	87,073	5,055	459,245	654,205
CANADA	19	15,646,828	996	1,239,337	344,131	4,362,594	6,075,616

Table 3 - CAPITAL EMPLOYED, BY PROVINCES, 1934 and 1935.

Provinces	Present value	Inventory value	Inventory	Operating	TOTAL CAPITAL EMPLOYED
	of lands, build- ings, machinery and equipment	of materials on hand, stocks in process, fuel and miscellaneous supplies on hand	value of finished products on hand	capital (cash, bills and accounts re- ceivable, etc.)	
	\$	\$	\$	\$	\$
1934					
New Brunswick ...	202,615	70,240	113,815	252,736	639,406
Quebec	546,840	277,624	76,626	274,219	1,175,309
Ontario	700,786	471,775	180,446	648,992	2,001,999
British Columbia.	9,046,437	502,120	1,259,731	90,012	10,898,300
Other provinces..	233,248	109,369	42,468	352,634	737,719
CANADA	10,729,926	1,431,128	1,673,086	1,618,593	15,452,733
1935					
New Brunswick ...	329,603	184,605		232,242	746,450
Quebec	333,685	214,980		106,736	655,401
Ontario	917,338	797,178		733,155	2,447,671
British Columbia	10,257,846	676,993		124,425	11,059,264
Other provinces..	144,696	148,970		444,376	738,042
CANADA	11,983,168	2,022,726		1,640,934	15,646,828

Table 4 - EMPLOYEES, SALARIES AND WAGES, BY PROVINCES, 1934 and 1935.

Provinces	AVERAGE NUMBER OF EMPLOYEES					Salaries	Wages	TOTAL SALARIES AND WAGES			
	On salaries		On wages		TOTAL				\$	\$	\$
	Male	Female	Male	Female							
1934											
New Brunswick	10	1	62	...	73	24,638	42,125	66,763			
Quebec	23	4	39	...	66	37,978	41,304	79,282			
Ontario	52	18	135	...	205	121,545	106,726	228,271			
British Columbia ..	64	10	288	...	362	119,316	390,596	509,912			
Other provinces ...	16	3	51	...	70	27,811	34,139	61,950			
CANADA	165	36	575	...	776	331,288	614,890	946,178			
1935											
New Brunswick	12	1	55	1	69	28,623	35,472	64,095			
Quebec	36	15	34	...	85	61,668	34,722	96,390			
Ontario	95	29	163	...	287	154,294	124,424	278,718			
British Columbia ..	60	9	401	...	470	132,778	580,283	713,061			
Other provinces ...	26	5	54	...	85	48,099	38,974	87,073			
CANADA	229	59	707	1	996	425,462	813,875	1,239,337			

Table 5 - WAGE EARNERS, BY MONTHS, 1934 and 1935.

Months	1	9	3	4	TOTAL	1	9	3	5	TOTAL
	Male	Female				Male	Female			
January	399	...			399	629	1			630
February	531	...			531	600	1			601
March	601	...			601	686	1			687
April	888	...			888	950	1			951
May	1,046	...			1,046	1,103	1			1,104
June	615	...			615	717	1			718
July	467	...			467	635	1			636
August	472	...			472	692	1			693
September	465	...			465	647	1			648
October	399	...			399	616	1			617
November	484	...			484	665	1			666
December	542	...			542	615	1			616
AVERAGE	575	...			575	707	1			708

Table 6 - FUEL AND ELECTRICITY USED, 1934 and 1935.

Kinds	Unit of measure	1934		1935	
		Quantity	Value	Quantity	Value
Anthracite coal	short ton	29	422	24	360
Bituminous coal - Canadian	short ton	2,350	10,374	2,756	12,915
Imported	short ton	153	634	157	665
Coke	short ton	11	104	10	112
Gasoline	Imp. gal.	3,477	842	3,517	886
Kerosene or coal oil	Imp. gal.	272	87	310	100
Wood	cord	...	...	5	14
Electricity purchased	K. W. H.	207,251,349	538,253	221,067,443	329,079
TOTAL	xxx	...	348,716	...	344,131

Table 7 - POWER EQUIPMENT, 1934 and 1935.

Kinds	1934		1935	
	Number of units	Total rated horse power	Number of units	Total rated horse power
Steam engines and steam turbines	2	40	2	40
Gasoline, gas and oil engines	4	80	4	55
Total Primary Equipment	6	120	6	95
Electric motors operated by purchased power	681	22,995	692	19,201
Total	687	23,115	698	19,296

Table 8 - MATERIALS USED IN THE FERTILIZER MANUFACTURING INDUSTRY, 1934 and 1935.

Materials	1934		1935	
	Quantity short tons	Cost at works \$	Quantity short tons	Cost at works \$
Ammonium phosphate	435	21,406	1,232	51,386
Ammonium sulphate	12,812	312,614	13,311	313,963
Basic slag	2,069	4,468	1,919	3,635
Bone meal and bone flour	293	6,080	273	5,604
Calcium cyanamide	1,630	44,468	1,956	56,273
Calcium nitrate and nitrochalk	200	5,149	...	4
Dried blood	100	4,524	97	4,631
Fish meal or scrap	524	11,017	294	9,870
Lime or land plaster	2,318	11,017	1,775	6,589
Kainite and potash manure salts	5,822	103,781	3,322	28,689
Phosphate rock	48,007	396,133	74,507	610,118
Potassium chloride (muriate of potash)	10,283	362,460	16,054	378,239
Potassium sulphate (sulphate of potash)	1,979	76,474	1,829	63,163
Sodium nitrate	3,719	104,110	3,774	99,429
Superphosphate, 16% and 20%	73,182	839,980	87,823	990,793
Superphosphate, 45% .....	...	...	705	23,856
Sulphuric acid, 66° Be	96,775	996,267	135,456	1,300,627
Tankage	1,353	23,524	1,164	22,015
Whale meat, bone and blood	29	1,008	18	526
All other materials .....	...	36,756	...	91,150
Containers (barrels, bags, etc.) .....	...	286,424	...	302,034
TOTAL .....	...	3,647,680	...	4,362,594

261,528
244,074

245,549
278,645

Table 9 - PRODUCTS OF THE FERTILIZER MANUFACTURING INDUSTRY, 1934 and 1935.

NOTE - Figures in this table are for the Fertilizer Manufacturing Industry which includes only the concerns which were engaged chiefly in the manufacture of fertilizers (see directory). Some fertilizers were made also in other industries. (Table 10.) For the total output of mixed fertilizers in Canada, see Table 11.

Products		1934		1935	
		Quantity	Selling value at works	Quantity	Selling value at works
Complete fertilizer	ton	125,328	3,148,379	132,851	3,121,510
All other products (x)	xx	...	2,318,775	...	2,954,106
TOTAL	xx	...	5,467,154	...	6,075,616

(x) Includes superphosphate, ammonium sulphate, ammonium phosphate, etc.

Table 10 - PRODUCTION OF FERTILIZERS AND FERTILIZER MATERIALS IN OTHER MANUFACTURING INDUSTRIES, 1934 and 1935.

Industries	Products	1934		1935	
		Quantity	Selling value at works	Quantity	Selling value at works
		short tons	\$	short tons	\$
Acids, alkalis and salts	Calcium cyanamide	94,624	1,802,202	110,037	2,345,988
Slaughtering and meat	Mixed fertilizers	12,843	357,234	12,303	306,707
packing	Animal tankage ..	12,837	343,224	15,566	536,558
Coke and gas	Ammonium sulphate	20,512	413,729	24,452	637,353
Adhesives	Mixed fertilizers	579	11,580	690	13,800
Fisheries	Herring fertilizer	13,485	72,511	11,669	62,887
	Other fish fertilizer	631	17,668	354	11,328
TOTAL		155,511	3,018,148	175,071	3,914,821

Table 11 - TOTAL PRODUCTION OF MIXED FERTILIZERS IN CANADA FROM ALL INDUSTRIAL GROUPS, 1921 - 1935.

NOTE - Figures in this table represent the total Canadian production of mixed fertilizers, regardless of the industries in which produced.

Calendar Years	Quantity Tons	Selling value at works
1921	46,900	2,399,855
1922	40,843	1,818,136
1923	37,587	1,366,343
1924	38,126	1,539,003
1925	47,076	1,663,129
1926	56,888	2,043,093
1927	72,112	2,552,421
1928	76,180	3,017,648
1929	75,164	3,098,567
1930	78,158	2,548,226
1931	113,632	3,247,694
1932	95,857	2,447,407
1933	106,421	2,777,702
1934	138,750	3,517,193
1935	145,844	3,442,017

Table 12 - IMPORTS INTO CANADA AND EXPORTS OF FERTILIZERS AND FERTILIZER MATERIALS, Calendar Years 1934 and 1935.

	Unit of measure	1934		1935	
		Quantity	Value	Quantity	Value
IMPORTS					
Tankage	ton	663	9,483	934	15,562
Bone dust, charred bone, bone ash, bone meal, and bone flour	ton	1,012	43,353	1,322	52,835
Fish offal or refuse	ton	302	10,304	898	25,479
Ammonium sulphate	ton	11,046	245,372	4,280	94,222
Basic slag, crushed or ground	ton	3,395	38,744	8,046	65,100
Kainite, and other German potash salts	ton	3,417	17,112	658	2,694
Potash, muriate of, crude	ton	22,739	489,999	30,415	485,086
Potash, sulphate of, crude	ton	1,697	41,496	2,837	73,098
Soda, nitrate of	ton	26,071	637,421	22,206	559,327
Superphosphate	ton	79,286	775,578	67,204	595,330
Fertilizers, compounded or manufactured, n. o. p.	ton	6,224	164,219	15,708	260,872
EXPORTS					
Tankage	ton	11,831	272,605	13,902	373,404
Bone dust and meal	ton	312	8,711	326	8,258
Fish meal	ton	12,296	484,865	7,444	245,449
Fish offal or refuse	ton	745	26,184	1,139	27,325
Ammonium sulphate	ton	57,204	1,144,164	45,055	977,552
Cyanamide	ton	91,927	1,946,504	113,527	2,426,813
Fertilizers, manufactured	ton	25,351	694,389	33,008	839,355

Table 13 - COMPARATIVE TABLE SHOWING TOTAL SALES IN CANADA OF FERTILIZER MATERIALS AND MIXED FERTILIZERS FOR THE FERTILIZER YEARS ENDING JUNE 30, 1935 and 1936.

Provinces	Fertilizer Materials		Mixed Fertilizers	
	1935	1936	1935	1936
	short tons	short tons	short tons	short tons
Prince Edward Island	11,440	10,167	5,301	7,759
Nova Scotia	12,839	12,907	16,011	21,463
New Brunswick	15,333	12,897	12,957	14,490
Quebec	26,245	24,298	19,016	27,438
Ontario	24,533	23,688	47,686	60,261
Manitoba, Saskatchewan and Alberta	10,466	8,350	299	88
British Columbia	3,855	4,172	6,498	5,862
CANADA	104,711	96,479	107,768	137,361
Sold for Export	179,532	190,268	7,929	17,994
GRAND TOTAL	284,243	286,747	115,697	155,355

Table 14 - SALES OF FERTILIZERS IN CANADA EXCEPT FOR MANUFACTURING PURPOSES, DURING THE YEAR ENDED JUNE 30, 1936.
(short tons)

Fertilizers	P.E.I.	N.S.	N.B.	Que.	Ont.	Man., Sask., and Alta.	B.C.	TOTAL SOLD IN CANADA	EXPORTED FROM CANADA	GRAND TOTAL
Nitrate of soda	164	2,469	1,401	233	660	6	209	5,142	181	5,323
Sulphate of ammonia	1,192	1,599	1,325	1,924	1,809	103	534	8,486	52,980	61,466
Cyanamide	...	626	1	71	906	...	46	1,650	116,358	118,008
Nitrochalk	49	2	1	...	...	...	...	52	2	54
Calcium nitrate	...	...	...	...	2	...	...	2	1,175	1,177
Superphosphate	7,865	3,173	7,157	16,634	16,366	719	807	52,721	8,799	61,520
Natural phosphate rock	...	3	55	...	5	...	...	63	...	63
Basic slag	...	3,680	712	3,051	1	...	17	7,451	5	7,456
Bone meal or bone flour	...	135	32	74	509	62	442	1,254	43	1,297
Muriate of potash	897	1,183	2,096	1,916	1,089	5	309	7,495	124	7,619
Sulphate of potash	...	1	28	191	121	...	57	398	94	492
Potash manure salts and kainite	...	...	...	17	17	1	7	42	...	42
Tankage	...	6	23	...	324	22	157	532	838	1,370
Sheep manure	...	28	5	145	298	...	53	529	...	529
Dried blood	...	...	1	...	78	84	126	289	219	508
Whale products	...	...	...	...	...	...	422	422	100	522
Fish meal	...	...	54	...	39	...	673	766	280	1,046
Ammonium phosphate	...	2	6	52	1,010	7,348	241	8,659	9,070	17,729
Other fertilizer materials	...	...	...	...	454	...	72	526	...	526
Total fertilizers	10,167	12,907	12,897	24,298	23,688	8,350	4,172	96,479	190,268	286,747
Total mixed fertilizers	7,759	21,463	14,490	27,438	60,261	88	5,862	137,361	17,994	155,355
GRAND TOTAL, 1936	17,926	34,370	27,387	51,736	83,949	8,438	10,034	233,840	208,262	442,102
GRAND TOTAL, 1935	16,741	28,850	28,290	45,261	72,219	10,765	10,353	212,479	187,461	399,940

DIRECTORY OF FIRMS INCLUDED IN THE FERTILIZER MANUFACTURING INDUSTRY, 1935.

NOTE - This Directory gives only the names of the firms which have been included in the Fertilizer Manufacturing Industry, and is not intended to be a complete list of the concerns which manufacture mixed fertilizers or fertilizer materials.

<u>Names of Firms</u>	<u>Location of Plants</u>
<u>PRINCE EDWARD ISLAND -</u>	
The Island Fertilizer Co. Ltd.	Charlottetown
<u>NOVA SCOTIA -</u>	
Colonial Fertilizer Company	Nesbitt St., Windsor
Canadian Industries Limited	Pier 9, Halifax
<u>NEW BRUNSWICK -</u>	
Canada Packers Limited	Bayside Ave., East Saint John
International Fertilizers Limited	East Saint John
Summers Fertilizer Co. Inc.	Prince William St., St. Stephen
<u>QUEBEC -</u>	
Canadian Industries Limited	Beloell
International Fertilizers Limited	Harbour Commissioners, Shed 29, Quebec
Saguenay Fertilizers Co.	Riviere du Moulin, Chicoutimi
<u>ONTARIO -</u>	
Agricultural Chemicals Limited	Marsh St., Port Hope
Canada Packers Limited	St. Clair Ave. W., Toronto
Canadian Fertilizer Company Ltd.	King St. E., Chatham
Canadian Industries Limited	Burlington & Ottawa Sts., Hamilton
Scottish Fertilizers Limited	Welland
William Stone Sons, Limited, and National Fertilizers Limited	Ingersoll
Witts Fertilizer Works	Norwich
<u>BRITISH COLUMBIA -</u>	
Canadian Industries Limited	New Westminster
Consolidated Mining and Smelting Co. of Canada, Ltd.	Trail
Globe Fertilizer Co. Ltd.	Foot Crompton Road, Vancouver

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