

# MANUFACTURERS OF MIXED FERTILIZERS 1964

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# MANUFACTURERS OF MIXED FERTILIZERS

# 1964

For statistical purposes the industry titled Manufacturers of Mixed Fertilizers in the revised Standard Industrial Classification covers the operations of establishments primarily engaged in manufacturing superphosphates and mixed fertilizers. Establishments primarily engaged in manufacturing chemicals which, in addition to their use as fertilizer materials, also have important industrial uses, e.g. ammonium nitrate, are classified in the Manufacturers of Industrial Chemicals industry.

Value of shipments and other revenue of the Manufacturers of Mixed Fertilizers industry totalled \$92 million, an increase of \$15 million over 1963. This amount included shipments of mixed fertilizers and superphosphates valued at \$12 million, shipments of other products (secondary products) valued at \$8 million and other revenue of \$12 million.

This industry's shipments of mixed fertilizers and superphosphates represented 90 per cent of its manufacturing revenue. Secondary products shipped included fertilizer materials, insecticides, etc.

The cost of materials and supplies, etc. used in the production of goods of own manufacture increased by \$12 million. Cost of materials and supplies, etc. (inputs) in 1964 represented 76.0 per cent of the value of shipments of own manufacture (outputs), compared to 72.5 per cent in 1963.

#### SYMBOLS

The following standard symbols are used in Dominion Bureau of Statistics publications:

- .. figures not available.
- ... figures not appropriate or not applicable.
- nil or zero.
- amount too small to be expressed.
- P preliminary figures.
- revised figures.
- x confidential to meet eacrecy requirements of the Statistics
  Act.

TABLE 1. Principal Statistics, 1961-64

				Mar	nufacturing	activity				ı	otal activ	vity	
Year and province	Estab- lish- ments		oduction a ated work		Cost of	Cost of	Value of shipments of goods	Value		g owners artners	Emp	loyees	Value
province	565 W 568 W	Number	Man- hours pald	Wages	elec- tricity	and supplies	of own manu- facture	added	Number	With- drawals	Number	Salaries and wages	added
	No.		'000			\$'000				\$'000		\$'0	000
1961						, i						4	
Totals	43	884	1.975	3.627	719	39,648	54,261	14. 426	_	-	1.460	6.691	15, 449
1962					į								
Totals	45	950	2,076	3,907	1,036	44, 224	59,618	16,142	_	_	1,562	7, 287	17, 02
		!					00,010	10,-10				1,401	21,04
1963													
Newfoundland	_		_	_	_	_	_	_	_	_	_	_	_
Prince Edward Island	2	1								į			
Nova Scotia	2	146	310	511	68	6,849	8.888	1,749	-	_	193	785	1,792
New Brunswick	3												
Quebec	6	234	491	1.127	119	10,435	14,966	3,868	_	_	374	1.995	4,096
Ontario	27	553	1,223	2,439	864	29,942	43.100	12,481	-	-	977	4.682	13,661
Manitoba	-	_	-	-	_	691	-	440		-000	_	_	-
Saskatchewan	_	-		_	_	-	-	_	_	_	-	-	-
Alberta	-	-	_	_	***	-	_	_	_	-	_	_	_
British Columbia	6	20	40	84	12	839	1,226	315	x	x	39	168	370
Yukon and Northwest Territories	-	_	-	-	_	-	_	_	_	-	_	_	_
Totals	46	953	2.064	4, 160	1,063	48,065	67.981	18, 413	x	x	1, 583	7, 630	19,919
1964													
Newfoundland	-	-	_	_	_	_	_	_	_	_	_	_	
Prince Edward Island	3	39	89	109	15	2,064	2,298	247	_	_	50	165	287
Nova Scotia	3	1											
New Brunswick	3	121	269	497	68	5,682	6,903	1,393	-		161	756	1,440
Quebec	10	240	529	1,219	163	11,357	15,743	4.151	_	-	398	2.214	4,351
Ontario	35	664	1,450	2.882	1,013	39,933	53,758	13,247	_	-	1.102	5,373	15,400
Manitoba	1												
Saskatchewan	-												
Alberta		22	46	102	11	912	1,324	403	X	х	41	193	463
British Columbia	6					M							
Yukon and Northwest Territories	-	-	=	_	_	_	001	-		-	man .	_	
Totals	61	1,086	2, 382	4, 809	1, 270	59,948	80,026	19,442	x	x	1, 752	8,701	21,941

TABLE 2. Principal Statistics classified by Size Group based on Value of Shipments of Goods of Own Manufacture, 1963 and 1964

				Mar	ufacturing	activity				Т	otal activ	rity	
Size group	Estab- lish- ments		duction a sted work		Cost of	Cost of	Value of shipments of goods	Value		owners	Employees		Value
		Number	Man- hours paid	Wages	elec- tricity	and supplies	of own manu- facture	added	Number	With- drawais	Number	Salaries and wages	added
	No.		,000			\$'000		b		\$'000		\$'(	000
1963													
Under \$10,000 \$ 10,000 to \$ 24,999	} 4	1	2	3	4	29	52	5	x	x	7	29	78
25,000 " 49,999	<sup>3</sup> –	_	-	_	_	_	_	_	_	_	_		
50,000 ' 99,999 100,000 ' 199,999	} 4	21	44	66	8	239	477	168	_	_	44	147	288
200,000 " 499,999	5 8 22 3	38 67 544 282	92 145 1,191 591	127 262 2,302 1,400	23 58 404 566	1,227 3,296 28,380 14,895	1,790 5,550 40,647 19,463	552 2,176 11,032 4,480		-	60 163 896 386	247 790 4,110 2,140	2,333 11,94 4,65
auxiliary units	0 0 0		***				1 * *			* * *	27	168	( 14
Totals	46	953	2,064	4,160	1,063	48,065	67,981	18, 413	Х	ж	1,583	7.630	19,91
1964													
Under \$10,000	6	5	10	12	3	186	216	29	x	х	10	24	50
100,000 " 199,999 200,000 " 499,999 1,000,000 " 4,999,999 1,000,000 " 4,999,999 2,000,000 and over 4,999,990 2,000 and over 4,999,900 and over 4,999,900 and over 4,999,900	9 11 10 22 3	27 60 90 597 307	135 195 1,305 683	86 185 349 2,495 1,680	13 26 78 464 685	1,137 2,505 5,631 33,303 17,186	1,528 3,157 7,736 42,982 24,407	616 700 1,962 10,007 6,128		=	41 99 203 951 421	160 390 997 4,479 2,474	2,039 12,069 6,198
auxiliary units	***				***						27	177	£ 19
Totals	61	1.086	2,382	4.809	1.270	59,948	80.026	19,442	x	x	1.752	8,701	21, 241

TABLE 3. Principal Statistics classified by Size Group based on Manutacturing Value Added, 1963 and 1964

				Mar	nufacturing	activity				7	rotal acti	vity	
Size group	Estab- lish- ments		oduction a ated work		Cost of	Cost of	Value of shipments of goods	Value		owners	Emp	loyees	Value
		Number	Man- hours paid	Wages	elec- tricity	and supplies	of own manu- facture	added	Number	With- drawals	Number	Salaries and wages	added
	No.		'000			\$'000				\$1000		\$*0	000
1963													
Under \$10,000 \$ 10,000 to \$ 24,999	5	8	17	34	6	93	173	15	х	х	30	120	197
25,000 ' 49,999	5	28	59	82	15	613	972	337	-	-	40	130	385
50,000 " 99,999	9 15 7 5	85 238 291 303	195 508 825 659	318 883 1,400 1,443	58 160 188 636	4,868 13,186 12,679 16,626	6,360 18,774 17,864 23,838	1,396 5,267 4,695 8,703	-	-	163 393 441 489	698 1,762 2,282 2,471	1,760 5,527 5,021 7,042
auxiliary units					,				* * 0		27	168	(14
Totals	46	953	2,064	4, 160	1,063	48,065	67, 981	18,413	x	х	1,583	7,630	19,919
1964													
Under \$10,000	} 10	23	56	78	9	991	1.052	81	x	x	40	155	279
25,000 " 49,999	6 7 8 18 8 4	24 48 70 345 219 357	52 90 165 728 492 799	85 128 254 1,302 1,042 1,920	20 20 47 273 175 726	2.155 1.804 3,380 19,388 12.576 19.653	2,400 2,128 4,537 25,342 16,552 28,015	234 328 1,101 6,183 4,148 7,367			63 71 108 528 414 501	236 242 471 2,312 2,203 2,905	390 406 1,216 7,214 4,846 7,609
Head offices, sales offices and auxiliary units	,		0 0 0	,							27	177	(19
Totals	61	1,086	2,382	4,809	1,270	59,948	80,026	19,442	х	x	1,752	8.701	21,94

TABLE 4. Principal Statistics classified by Size Group based on Total Value Added, 1963 and 1964

				Mar	ufacturing	activity				Т	otal activ	vity	
Size group	Estab-		oduction ated work			Cost of	Value of shipments			owners	Emp	loyees	
	ments	Number	Man- hours paid	Wages	elec- tricity	maierials and supplies	of goods of own manu- facture	Value added	Number	With- drawals	Number	Salaries and wages	Value added
	No.		'000			\$'000				\$'000	-	\$10	000
1963													
Under \$10,000	} 5	5	10	13	3	123	214	75	х	x	11	24	86
50,000 '' 99,999 100,000 '' 199,999 200,000 '' 499,999 500,000 '' 999,999 1,000,000 '' 4,999,999	3 8 17 7 6	19 69 247 214 399	42 158 529 475 850	49 277 908 963 1,949	11 39 179 156 675	356 3,166 14,134 9,753 20,533	560 4,322 19,690 14,277 28,917	185 975 5,338 4,159 7,681		-	29 126 426 353 611	99 575 1,858 1,715 3,192	25' 1,200 5,698 4,643 8,043
5,000,000 and over	-	-	-	_	-	-		-	-	-	27	168	(1)
Totals	46	953	2,064	4,160	1,063	48,065	67,981	18,413	x	x	1,583	7,630	19, 91
1964													
Inder \$10,000	6	5	10	12	3	186	216	29	Х	х	10	24	5
25,000	8 7 8 17	20 48 70 284	42 90 172 618	65 128 241 1,156	10 20 44 242	1,281 1,804 3,043 16,555	1,471 2,128 4,020 21,368	216 328 924 5,085		=	34 71 101 476	132 242 427 2, 193	25 40 1,14 5,58
5,000,000 4,999,999 5,000,000 and over	6	204 455	454 996	940 2,265	147 804	11.841 25,237	16, 256 34, 564	4,484 8,376	-	=	379 654	1,950 3,557	4,56 9,94
ead offices, sales offices and auxiliary units			A = 4		4 0 0			* * *			27	177	(1
Totals	61	1.086	2,382	4.809	1.270	59,948	80,026	19,442	V .	X	1.752	8,701	21.94

TABLE 5. Principal Statistics classified by Size Group based on Total Employed, 1963 and 1964

	ľ			Mar	nufacturing	activity				7	Total acti	vlty	
Size group	Estab- lish-		oduction ated work		Cost of	Cost of	Value of shipments			owners artners	Emp	loyees	
	ments	Number	Man- hours paid	Wages	fuel and elec- tricity	materials and supplies	of goods of own manu- facture	Value added	Number	With- drawals	Number	Salaries and wages	Value added
	No.		0000			\$'000			1	\$'000		\$*0	100
1963													
Under 5 employed	4 10 21	3 63 279	6 136 636	7 208 1,126	2 45 209	70 3.082 15.986	100 4,782 22,663	26 1,611 6,256	x _	x _	6 93 528	12 366 2,431	38 1.743 7,165
100 - 199 "	11	608	1,286	2,819	807	28,927	40,436	10,519	-	-	929	4,654	10,987
500 employed and over	_	_	_	_	_			_	_	-	_	_	_
ilead offices, sales offices and auxiliary units											27	168	(14)
Totals	46	953	2,064	4,160	1,063	48,065	67, 981	18,413	х	x	1,583	7,630	19,919
1964										li 1			
Under 5 employed	11 18 21 8 3	15 100 301 363 307	30 218 666 784 683	49 337 1,164 1,579 1,680	9 69 226 279 685	837 5,911 17,723 18,290 17,186	1,074 8,322 22,760 23,462 24,407	467 2,328 5,144 5,375 6,128	x	x	25 148 561 570 421	85 599 2,625 2,742 2,474	526 2.471 5,770 6,995 6,198
Head offices, sales offices and auxiliary units											27	177	(19)
Totals	61	1,086	2,382	4,809	1,270	59,948	80,026	19,442	x	x	1,752	8,701	21,941

TABLE 6. Principal Statistics classified by Type of Organization, 1963 and 1964

				Mar	ufacturing	activity					Fotal acti	vity	
Type of organization	Estab-		oduction ated wor		Cost of	Cost of	Value of shipments			owners	Empl	oyees	
	ments	Number	Man- hours paid	Wages	fuel and elec- tricity	materials and supplies	of goods of own manu- facture	Value added	Number	With- drawals	Number	Salaries and wages	Value added
	No.		'000			\$'000				\$1000		\$'0	000
1963													-
Individual ownerships	]												
Partnerships	42	910	1.979	4,021	1,027	44,903	63,300	16, 915	x	x	1,504	7,276	18.415
Incorporated companies	]												
Co-operatives	4	43	85	140	36	3,162	4,681	1.497			52	187	1.517
Head offices, sales offices and auxiliary units					• • •					-	27	168	(14
Totals	46	953	2,064	4. 160	1,063	48,065	67,981	18,413	x	x	1, 583	7,630	19, 918
1964													
Individual ownerships													
Partnerships	57	1,041	2,290	4,660	1,233	56,487	74,902	17,799	х	x	1.672	8,328	20,291
Incorporated companies	J												
Co-operatives	4	45	92	149	36	3,461	5.124	1,643	***		53	196	1,669
Head offices, sales offices and auxiliary units				4 + 4							27	177	(19)
Totals	61	1,086	2.382	4.809	1, 270	59. 948	80.026	19.442	х	x	1, 752	8.701	21.941

TABLE 7, Calculation of Output, Input and Value Added, 1963 and 1964

	Manufact activi		Non-manuf activit		Tota activi	
the second second	1963	1964	1963	1964	1963	1964
			\$'00	00	1	
Output			1			
1. Shipments and other revenue	67,981	80.026	9,507	12, 151	77,488	92,177
Inventories - Goods of own manufacture:						
Add closing - Goods in process	6,018	6,535			6,018	6,535
Finished goods	3,677	3,714			3,677	3,714
Deduct opening - Goods in process	6,674	5,964			6,674	5,964
Finished goods	3,461	3,650	***		3,461	3,650
2. Net inventory change	(440)	635		***	(440)	635
3. Gross output (1+2)	67,541	80.661	9,507	12,151	77,048	92,812
Input						
4. Purchases of goods not of own manufacture	• • •	***	7,973	10.011	7.973	10.011
Inventories - Goods not of own manufacture:						
Add opening	***		524	410	524	410
Deduct closing	4 * *	. 4 #	616	1,026	616	1.026
5. Cost of goods sold (not of own manufacture)	* * *		7,881	9,395	7.881	9,395
3. Materials, supplies, etc.	48,065	59,948	121	258	48,186	60, 206
7. Fuel and electricity	1,063	1,270		• • •	1.063	1,270
3. Gross input (5 + 6 + 7)	49,128	61,218	8,002	9.653	57.130	70,871
Value added (3 ~ 8)	18, 413	19, 442	1. 506	2, 499	19, 919	21, 941

TABLE 8, Employment and Payroll, 1963 and 1964

					Emplo	yees						Salari	es and wa	iges	
Year and		Product related				inis-		les nd	To	tal	Producti		Admin-	Sales	
province	Manufa	cturing	0	ther		office		bution	10	ran	related v	vorkers	istra- tive and	and distri-	Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Manufac- turing	Other	office	bution	
next are a					numi	ber		1					\$'000		
1963															
Newfoundland	_	_	_	-	-	_	-	-	-	-	-	_	-	_	_
Prince Edward Island															
Nova Scotia	146	_	-	_	28	6	13	_	187	6	511	_	191	83	785
New Brunswick	)														
Quebec	234	-	1	_	66	18	54	1	355	19	1, 127	2	488	378	1.995
Ontario	551	2	3	_	201	66	151	3	906	71	2,439	11	1,379	854	4.682
Manitoba	-	-	_	-	-	_	_	-	_	-	-	_	_	_	_
Saskatchewan	_	-	-	_	_	_	_	_	_	_	_	_	_	-	_
Alberta	_	_	_	_	_	_	-	_	_	_	_	_	-	-	-
British Columbia	20	_	_	_	10	4	5	-	35	4	84	sydney	52	32	168
Yukon and Northwest Terri- tories	_	_	_	_	_	-	-	_	_	_	_	_	_	_	_
Totals	951	2	4	_	305	94	223	4	1,483	100	4, 160	14	2, 110	1,346	7.630
1964						1									
Newfoundland	_	_	-	_	-	-	_	_	_	_	_	-	-	_	_
Prince Edward Island	39	-	_	-	8	2	1	_	48	2	109	_	53	3	165
Nova Scotia	1			ļ	0.0		10		150	-	405		100	0.0	750
New Brunswick	121	-	-	_	22	5	13	_	156	5	497	_	169	90	756
Quebec	240	-	2	-	75	19	61	1	378	20	1,219	8	584	403	2.214
Ontario	661	3	13	1	204	61	154	5	1,032	70	2.882	46	1,557	889	5,373
Manitoba	}														
Saskatchewan															
Alberta	22	-	_	-	9	4	6	_	37	4	102	_	56	35	193
British Columbia															
Yukon and Northwest Terri-	-														
tories	_	-	_	_	-	-		_	_	-	_	_	_	-	-
Totals	1.083	3	15	1	318	91	235	6	1.651	101	4, 809	54	2.420	1,419	8.701

TABLE 9. Production and Related Workers, - Manufacturing Activity, 1963 and 1964

W. W.	196	33	196	4
Month	Male	Female	Male	Female
		numb	er	
Establishments reporting monthly detail (large establishments only):				
January	909	2	1,005	2
February	952	2	1.089	3
March	944	2	1,221	3
April	1.343	2	1,526	3
May	1,458	3	1,683	3
June	889	2	1,016	3
July	724	2	852	3
August	736	2	863	2
September	854	2	905	3
October	849	2	901	3
November	863	2	933	3
Degember	902	2	967	4
Averages	951	2	1,083	3
Stablishments reporting annual averages (small establishments only)				7
Werage for all establishments	951	2	1,083	3

TABLE 10. Inventories, 1964

		Manufa	cturing		Non- manufacturing	
Province	Materials, supplies, etc.	Goods in process	Finished goods of own manufacture	Total	Products or materials purchased for resale	Total inventories
Once-le et			book value	\$,000		
Opening:						
Newfoundland Prince Edward Island	-	_	-	_		_
	329	_	219	548	3	551
Nova Scotia	545	741	257	1,544	44	1.588
New Brunswick Quebec	1 000	050	F1			
Ontario	1,660	856	517	3,033	75	3,108
Manitoba	4,010	4, 262	2,599	10,871	200	11,071
Saskatchewan						
Alberta	} 176	105	57	338	88	426
British Columbia				- 1 1 1		
Yukon and Northwest Territories	_ [	_				
turon and Notthwest Tentiones	- 1	_			_	_
Totals	6,721	5,964	3,650	16,334	410	16,744
Closing:						
Newfoundland	_	_				
Prince Edward Island	505	-	248	753	15	768
Nova Scotia	1			100		
New Brunswick	938	991	248	2,177	53	2,230
Quebec	2,153	730	570	3,453	109	3.562
Ontario	5,409	4,696	2,600	12,705	779	13,484
Manitoba	)					20,101
Saskatchewan						
Alberta	159	117	48	324	70	393
British Columbia	J					
Yukon and Northwest Territories	-	_	_	_	_	-
Totals	9,163	6,535	3,714	19,412	1.026	20.438

TABLE 11. Purchased Fuel and Electricity Used in Manufacturing Activity, 1963 and 1964

	1963	3	1964	
Description	Quantity	Cost	Quantity	Cost
I. Large establishments reporting commodity detail:  Bituminous coal:  (a) From Canadian mines ton  (b) Imported "  Sub-bituminous coal (from Alberta mines only) "  Anthracite coal "  Lignite coal "  Coke "  Gasoline (including gasoline used in cars and trucks) lmp. gal.  Fuel oil including kerosene or coal oil "	684 256 - - - 359,715 1,413,110	\$'000 8 4 - - - 111 148	927 247 - - - 490,590 1,775,741	\$*000 11 4 - - - 146 176
Wood cord  Gas:  (a) Liquefied petroleum gases Imp. gal.  (b) Other manufactured gas M cu. ft.  (c) Natural gas	16,634 - 430,900	5 - 318	22,170  556,984	5 - 371
Other fuel  Electricity purchased kwh.  Steam purchased  Small establishments not reporting commodity detail:	39,230,041	418 52	45,891,110	<b>487</b>
Estimate for fuel and electricity  All establishments:  Total fuel and electricity used	***	1,063		1,270

TABLE 12. Materials and Supplies - Manufacturing Activity, 1963 and 1964

Description		1963		1964	
Description	Quantity	Cost	Quantity	Cost	
	tons	\$'000	tons	\$'000	
, Materials used:					
Ammonia, anhydrous	11,880	1, 045	14, 812	1, 38	
Ammonium nitrate	6,022	447	17, 792	1, 30	
Ammonium phosphate	12, 265	852	26, 585	1, 80	
Ammonium sulphate (sulphate of ammonia)	43, 128	1,555	42, 825	1,66	
Borax	245	28	311	3	
Calcium cyanamide (cyanamid)	45	3	44		
Limestone	27,627	158	48, 649	25	
Lime or land plaster	7, 334	99	10,973	14	
Magnesium oxide (all forms, including brucite, mag 70, etc.)	1,728	72	1, 574	5	
Magnesium sulphate	131	9	85		
Nitrogen solutions	61, 324	3, 841	78, 244	4, 88	
Phosphate rock	400, 217	6, 413	532, 759	8, 1	
Potassium chloride (muriate of potash)	164, 159	6, 504	202, 690	8, 3	
Potassium nitrate (nitrate of potash)	44	7	77		
Potassium sulphate (sulphate of potash)	18, 614	932	16, 840	86	
Potassium magensium sulphate (sulphate of potash magnesia)	4, 383	159	4,732	1'	
Sand	25, 382	70	19, 486		
Sodium pitrate (pitrate of soda)	766	50	49		
Sulphuric acid, 100%	289, 351	4, 113	362, 883	5, 0	
Superphosphate:					
22% or less P <sub>2</sub> O <sub>5</sub>	349,945	7,673	356, 610	8, 19	
More than 22% P <sub>2</sub> O <sub>5</sub>	83,021	4, 559	93,753	5, 25	
Ammoniated	19,055	952	41,685	2, 3	
Urea	2,812	262	4, 887	4	
Al: other materials and components used1	4 0 =	3, 274		4, 2	
Containers and other packaging materials and supplies used		3, 166		3, 10	
Operating, maintenance and repair supplies used (excluding fuel)	= 0 4	1,670		2, 0	
Amount paid out to others for work done on materials owned by establishments	0.0 0	150		13	
Totals		48,065		59, 94	

No detailed information on materials used was collected from small establishments, the estimated costs for which are included here. These estimated costs were \$149,000 in 1963 and \$180,000 in 1964.

TABLE 13. Shipments of Goods of Own Manufacture, 1963 and 1964

Proprietion	1963		1964	
Description	Quantity	Value	Quantity	Value
	tons	\$'000	tons	\$'000
. Products:				
Mixed fertilizers	888, 225	53, 358	990, 086	59,707
Superphosphates, milled and screened only	22, 830	870	26, 554	1,004
Ammonium sulphate, milled and screened only	395	27	351	25
Murlate of potash, milled and screened only	7, 886	520	6,712	466
All other products (including superphosphates)	* * *	13,744		19, 493
Amount received in payment for work done on materials and products owned by others	• • •	9	• • •	1
Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items described above	4 0 0	(547)	***	( 670)
Not adjustment for establishments receiving progress payments	-	-	-	-
Total adjusted value of shipments and work done		67, 981		80,026

### TABLE 14: Shipments of Selected Goods of Own Manufacture - All Industries, 1956 - 64

(Includes shipments from other industries which manufacture, as a secondary activity, the commodities listed)

#### A. Mixed Fertilizers

Year	Quantity	Value
	M, tons	\$'000
56	703	34, 408
57	723	37,026
58	752	40,001
59	757	41,498
60	791	42, 739
31	871	49,344
52	887	50,117
63	927	55,855
64	1,033	62,484

#### B. Factory Shipments and Imports of Ammonium Sulphate

Year	Factory shipments	Imports
	to	ons
56	339,510	3, 144
7	318,634	3,288
8	300,049	5,892
9	307, 121	5,941
0	349,677	8, 636
1	278, 527	9,940
2	291,683	14, 151
3	257, 581°	. 14,259
34	286, 439	17,628

TABLE 15. Total Sales in Canada of Fertilizer Materials and Mixed Fertilizers, for the Years Ended June 30, 1956-65

Year ended June 30	Fertilizer materials	Mixed fertilizer	Total sold in Canada
	tons (2,000 pounds)		
1956	148, 037	652,643	800,680
1957	156, 497	651,754	808, 251
1958	181, 973	688,566	870, 539
1959	218, 661	689, 553	908, 214
1960	243,720	691,708	935, 428
961	297, 730	779,682	1,077,412
1962	344, 800	799, 200	1, 144, 000
1963	448, 097	808,744	1, 256, 841
964	609, 580	844,752	1,454,332
1965	685, 388	908, 205	1,593,593

<sup>1</sup> Except for manufacturing purposes.

Note: A special survey of the fertilizer trade in Canada during the fertilizer year ended June 30, 1964 has been completed by the Dominion Bureau of Statistics and the results have been published in a special report, "Fertilizer Trade", copies of which are available on application to the Information Services Division of the Dominion Bureau of Statistics.

#### List of Establishments classified to This Industry, 1964

form not because eminblishments classified to other industries, which as a secondary activity, manufacture products typical of this industry)

Name	Location
4	
rince Edward Island:	
Island Fertilizer Ltd. Canada Packers Limited Prlma Fertilizers	Summerside
ova Scotia:	
Canadian Industries Limited Canada Packers Limited Fundy Fertilizers	Nesbit St. Winds or
w Brunswick:	
Canada Packers Limited International Fertilizers Limited Summers Fertilizers Co. Inc.	Courtenay Bay, Saint John
uebec:	
Agricultural Chemicals Ltd. Canada Packers Limited Canada Packers Limited Canadian Industries Limited Houde, William, Limited. International Fertilizers Limited Les Engrais Chimiques Maska Les Engrais Albatros Ltd. Les Engrais Idéal Ltée Les Engrais Payson Ltd.	6000 St. Patrick St., Montreal Ste-Foy McMasterville and Montreal La Prairie Wolfe's Cove, Sillery Ste-Rosalie St-Arsène St-Remi
itario:	
Agricultural Chemicals Ltd. Agricultural Chemicals Ltd. Bradford Fertilizers Ltd. Canada Packers Limited Canada Packers Limited Canadian Industries Limited Electric Reduction Co. of Canada Ltd. Elmira Fertilizers Ltd. Electric Reduction Co. of Canada Ltd. Elmira Fertilizers Ltd. Harriston Fertilizers Ltd. Harriston Fertilizers Ltd. Huronia Fertilizers Ltd. International Fertilizers Limited Ent County Fertilizers Ltd. Lowrie Fertilizers Ltd. Manchester Products Limited Misner Fertilizer Ltmited "Na-Chuts" Plant Food Co. (Canada) Ltd. Ontario Plant Foods Ltd. Rainbow Chemicals Ltd. Scotch Fertilizer Ltd. Scotch Fertilizer Ltd. Swift Canadian Co. Ltd. Swift Canadian Co. Ltd. Swift Canadian Co. Ltd. Swift Canadian Co. Ltd. United Co-operatives of Ontario	London Aurora Burford Richmond St. W. Chatham 2200 St. Clair Ave. W. Toronto Welland King St. E., Chatham Burlington St. E., Hamilton Norwich and Ingersoll R.R. 2. Richmond Port Maitland Elmira Essex Harriston Walkerton 250 University Ave., Toronto Conwali Ridgetown Mount Albert Galt Port Dover 2 Langarth St. W., London Delhi Courtland Tilbury Allsa Cralg Kerwood 1400 The Queensway, Toronto Thamseville McGregor Tillsonburg 4004 Dundas St. W., Toronto Stratford
anitoba: Bard Fertilizer Ltd.	710 Pambina Yuv. Winnings
	710 Pembina Hwy., Winnipeg
itish Columbia: Burns and Co. Ltd.	Foot Woodland Drive, Vancouver
Dutch Treat Fertilizer Products Globe Fertilizer Co. Ltd. Green Valley Fertilizer and Chemical Co. Ltd. Old Gardener Products Ltd. Sway, Michael	North Surrey Foot Crompton Road, Vancouver North Surrey 2060 West 10th Ave., Vancouver

# CONCEPTS AND DEFINITIONS

Census of Manufactures

#### General

The Census of Manufactures is an annual mail survey covering Canada's Manufacturing Industries. It is based on the Standard Classification of Industries and full details concerning the system may be found in the Standard Industrial Classification manual, Catalogue No. 12-501 which is available from the Queen's Printer or the Dominion Bureau of Statistics. In summary, the Classification as it relates to the manufacturing industries provides for a breakdown into 140 industries arranged in 20 major industry groups. Of the 140 (3 digit) industries, 18 are further broken down into 56 (4 digit) sub classes. At the Canada level, principal statistics are collected and compiled for 176 separate industries. They cannot all be published separately by province, however, because of the confidential nature of the data in certain provinces.

The reporting unit for the Census is designated as the establishment (see definition of "Establishment" in following section) and a return is requested from every establishment classified to a manufacturing industry. Although respondents are required to submit reports covering the calendar year, financial year reports other than the calendar year are accepted in instances where respondents find it impossible to supply calendar year data from accounting records. When an establishment is operated for only part of a year a report is required covering the period of operation.

There are four different questionnaires used in the Census of Manufactures; (a) short form (b) long form (c) head office questionnaire and (d) commodity questionnaire. The short and long forms are used to obtain principal statistics and commodities shipped from establishments classified to manufacturing industries and differ only in the amount of detail requested. The short form is a single-sheet questionnaire sent to small manufacturers generally reporting shipments of less than \$100,000: this cut-off, however, varies somewhat between industries. The head office questionnaire is generally used for company head offices and/or auxiliary units separately located from the manufacturing establishment(s), (see following notes on Head offices and auxiliary units). The Commodity questionnaire is used to survey certain establishments which are coded (on the basis of their principal activity) to industries other than manufacturing in the Standard Industrial Classification system, but which undertake some manufacturing as a subsidiary activity. This single-sheet questionnaire is designed to collect information on the quantity and value of goods of own manufacture shipped by such establishments in order to achieve full coverage of domestically manufactured commodities (see the following note under Shipments).

The results of the Census are presented in some 140 publications. In addition to these annual industry publications there are annual summary reports for Canada and the provinces and special reports giving principal statistics by detailed geographic areas, by type of ownership and size of establishment. A special annual report covering the shipments of all manufactured commodities arranged in alphabetical order is also published.

Since 1960 the following major changes have been implemented in the Census of Manufactures: (a) a revised Standard Industrial Classification (b) a new establishment definition and (c) an extension of the establishment definition to cover the non-manufacturing activities of manufacturing establishments. The statistics presented in the various 1963 reports reflect the complete implementation of these changes and enable comparisons to be made with the years 1961 and 1962. For a complete description of the procedures followed in establishing the revised series, reference should be made to the Explanatory Notes included in the 1960, 1961 and 1962 industry publications. The statistical framework within which the Census of Manufactures is now carried out is based on the following concepts and definitions which have been developed as part of a general programme to achieve a fully integrated system of economic statistics.

#### Establishment

A manufacturing establishment is typically a factory, mill or plant principally engaged in manufacturing activities. The majority of such establishments are firms but many firms have more than one establishment. Such firms are requested to submit a separate Census of Manufactures report for each manufacturing establishment which can meet the reporting requirements embodied in the following definition of the "establishment":

"The smallest unit which is a separate operating entity capable of reporting the following principal statistics:

Materials and supplies used
Goods purchased for resale as such
Fuel and power consumed
Number of employees and salaries and wages
Man-hours worked and paid
Inventories
Shipments or sales."

Each establishment is required to report on all the activities carried out within it's accounting boundaries (except income from investments such as rent, interest and dividends) and data on the different activities (manufacturing, trading in goods not of own manufacture, construction by own labour force, revenue from services, etc.) are requested to be reported separately. It should be noted that the attaistics for separate activities are not completely consistent since some respondents cannot distinguish, in their records, materials, shipments and inventories relating solely to their own manufacturing activities. For example, inventory of goods purchased for re-sale may not be distinguishable from inventory of own manufactured goods. Complete consistency, therefore, can be obtained only at the "all operations" (total activity) level and for studies or statistical measures requiring accurate coordinated data, the "total" statistics should be used.

The number of establishments represents the number of operating units that are principally engaged in the activities of the manufacturing industries to which they have been classified. These units do not necessarily represent the total number engaged in the production of a commodity mainly produced in a certain industry. Some commodities are produced as secondary products in other manufacturing and non-manufacturing industries. It should be noted that head offices and auxiliary units which are surveyed separately are not included in the establishment count, (see following notes on head offices and auxiliary units).

# Head Offices and Auxiliary Units

All head offices and auxiliary units of companies classified to the manufacturing industries such as sales offices, administrative offices, warehouses, laboratories, etc. are now surveyed as part of the Census of Manufactures.

These head offices and auxiliary units are mitter included in an establishment report or are surveyed by means of the head office questionnaire. The former is the most common case where a single establishment firm has its executive personnel, sales office, etc. located at the site of the manufacturing plant (establishment). The special head office questionnaire is generally used where a firm, regardless of the number of establishments, has separately located offices or auxiliary units. Such offices or units do not constitute establishments within the Census of Manufactures as they do not normally generate operational revenues, but give rise only to costs of operations (mainly salaries and wages) which are automatically included in the value of shipments or sales. Although not considered as establishments, and hence, not included in the "establishment" count for an industry, the operational costs are reflected in either the "Industry" statistics (3 or 4 digit level) or the "Major group" statistics (2 digit level) according to the following rules:

- (a) In the case of single establishment firms, statistics for separately located offices and units are classified to the same industry (3 or 4 digit) as the establishment;
- (b) In the case of multi-establishment firms, the statistics for such offices and units are coded to the same industry as the establishments of the firm, when all establishments are in the same industry (3 or 4 digit). When establishments of

such firms are coded (1) to different industries within a major group, (2) to industries in different major groups or (3) to industries in different divisions of the Standard Industrial Classification, then the statistics are included in the major group totals (2 digit level) in which the major part of the company's operations are classified. Although this may result in some distortion of major group statistics in the case of (2) and (3) the statistics at the industry (3 or 4 digit) level in all cases will be left free of these company-wide data.

#### **Employees**

# (a) Production and related workers — Manufacturing activities

In addition to those engaged in production and assembling activities, they include those employed in storing, inspecting, handling, packing, warehousing, etc. They also include employees engaged in maintenance, repair, janitorial and watchman services and line supervisors (working foremen) engaged in similar work to that of the employees they supervise. For those establishments reporting on the "long" form, production and related workers engaged in manufacturing activity are reported as those receiving pay during the last pay period of each month, an average for the year being obtained by summing the monthly figures and dividing by 12. This procedure is followed even though the establishment did not operate in all months in order to arrive at equivalent annual full-time employment. The numbers are somewhat affected by turnover, in that employment is overstated when an employee changes employment during a pay period. In the case of those establishments reporting on the "short" form, respondents are requested to report average annual figures. The man-hours of production and related workers in manufacturing activity represent total man-hours paid (total hours at work during the calendar year plus hours not worked but nevertheless paid for, such as paid vacations, sick leave, statutory holidays, etc.). Data on man-hours are not collected from establishments reporting on the short form. Man-hours for these establishments are estimated on the basis of ratios derived from the 1958 census. During this census all establishments reported on the long form. In reporting overtime hours, respondents are requested to report only hours actually at work. It should be noted that the division of hours paid into production and related workers payrolls results in average hourly earnings and does not represent hourly wage rates which are collected and published by the Department of Labour and which are based on selected occupations.

# (b) Production and related workers — Non-manufacturing activities

Such employees include those on manufacturing establishments' payrolls engaged in activities such as construction undertaken for the use of these establishments, some outside piece-workers employed in certain industries, logging employees who are reported as part of a sawmilling establishment and any other production workers who are not engaged in manufacturing-type operations.

#### (c) Administrative and office employees

This category includes all executive and supervisory officials such as presidents, vicepresidents, comptrollers, secretaries, treasurers. etc., together with managers, professional, technical and research employees, superintendents and factory supervisors above the line supervisor or working foreman level, and clerical staffs. Also included are employees in activities such as advertising. credit collections, purchasing, personnel, legal, medical, etc. It should be noted that prior to 1961 this category also included working owners and partners. Also included in this category are employees located at head offices or auxiliary units separately located from the establishment; these are generally included in the figures for the province in which they are located according to the rules outlined under "Head offices and auxiliary units" above.

#### (d) Sales and distribution workers

This category includes office personnel whose salaries are charged to selling expense, travelling salesmen, driver salesmen, truckdrivers and their helpers, etc. It may also include some sales employees who are reported as part of a manufacturing establishment but are not working at the establishment's location. These are generally broken down by province in cases where more than 15 employees are involved in any one province. The figures exclude persons working on a commission basis who are not considered regular employees of the establishment.

## (e) Total Employees

This total comprises the foregoing categories including employees located at separately located head offices and auxiliary units. The numbers of employees included under categories (b), (c) and (d) are reported in the form of annual averages and represent as closely as possible full time employment; adjustments are made when reported figures indicate the existence of part time or seasonal employment. In all the above categories, figures on employment refer to the calendar year whether or not other establishment statistics can only be reported on a fiscal year other than the calendar year.

#### Working Owners or Partners

These are not now included in the statistics of employees and salaries and wages. There is some duplication in numbers when a person owns more than one establishment and is reported as a working owner on each Census return, Withdrawals of working owners are defined as amounts withdrawn by owners or partners for normal living expenses excluding withdrawals for payment of income tax.

#### Salaries and Wages

Salaries and wages refer to gross earnings of employees before deductions for income tax and employees contributions to social services such as sickness, accident and unemployment insurance, pensions, etc. They include all salaries, wages, bonuses, profits shared with employees, the value of room and board where provided, commissions (paid to regular employees only) as well as any other allowance forming part of the worker's earnings. Payments for over-time are included. Figures on salaries and wages refer to the calendar year.

#### Fuel and Electricity

Figures for fuel refer to amounts actually used (including fuel used in cars, trucks, locomotives, etc.), not to purchases unless the quantities are substantially the same. Any fuel and electricity produced by establishments for internal consumption are not included in the total cost. Values represent laid down cost at the establishment including freight, duty, etc. Although fuel and electricity used is considered part of manufacturing activity it should be noted that it also includes relatively small amounts used in non-manufacturing activities since these cannot be reported separately.

#### Materials and Supplies

#### (a) Manufacturing activities

Figures represent quantities and laid down cost values, at the establishment, of materials. supplies and purchased components owned and used during the year in manufacturing activities and related processes. These statistics represent only commodity items or physical goods (cost of services or overhead charges such as advertising, insurance, depreciation, etc. are not included) whether purchased from others or received as transfers (in the form of materials, components or semi-processed goods) from other establishments of the reporting company. Included are maintenance and repair supplies not chargeable to fixed assets accounts and any amounts charged by other establishments for work done on materials owned by the reporting establishment, Cost of repairs or maintenance done by outside contractors and cost of returnable containers are not included.

#### (b) Non-manufacturing activities

#### 1. Purchases for re-sale as such

Figures represent cost of materials or products purchased from others by the reporting establishment (or received as transfers from other establishments of the reporting company) for re-sale as such in the same condition as purchased. Included are any finished products received on consignment from other countries.

#### 2. Other materials and supplies used

Figures represent the cost of materials and supplies, if any, used in new construction and in the production of machinery and equipment (for the use of the reporting establishment) by the establishment's own employees. Included are materials used for any capital repairs and alterations carried out by the establishment's employees. Amounts paid to outside contractors for construction and repair work are not included nor is the cost of

purchased machinery and equipment. Also included is the cost of office supplies not chargeable to fixed assets accounts and the cost of such other items of materials and supplies used as food, beverages and supplies for establishment-operated cafeterias and lunch counters, first aid and medical supplies, laboratory supplies, etc.

#### **Shipments**

#### (a) General

The figures represent revenue from all production, sales, services and related activities of reporting establishments with shipments valued in Canadian dollars at the point at which the establishment relinquishes control. The unsold portion at year end of consignment shipments in Canada is treated as inventory and not as shipments but all shipments to foreign countries for which the form B13 "Customs Canada Export Entry" has been completed, are treated as shipments.

In those industries where work on principal products extends over a relatively long period, (Fabricated Structural Metal Industry, Aircraft and Parts Manufacturers, Railroad Rolling Stock Industry and Shipbuilding and Repair Industry) the value of production rather than the value of shipments is recorded. There are certain establishments in other industries which also operate on a basis of progress payments. For these establishments, shipments are also adjusted to work put in place on the basis of the net change in progress payments over the year.

#### (b) Shipments of goods of own manufacture

These figures represent shipments of goods made from own materials either in the reporting establishments or by other manufacturers on the basis of a charge to the reporting establishments for work done. Included are revenue from repair and custom work, amounts received in payment for work done on materials owned by other establishments and the cost (book value) of any goods shipped on a rental basis.

All products and by-products of own manufacture shipped from the establishment are covered, including transfer shipments to sales outlets, distributing warehouses or to other manufacturing plants of the reporting firm, when such units are treated as separate establishments. The value of shipments are net of returned goods, discounts, returns, allowances, sales tax and excise taxes and duties, returnable containers and charges for outward transportation by common or contract carriers. Transportation or delivery expense incurred by the reporting establishment's own carriers are included.

Shipments of goods of own manufacture of establishments which are coded to some other division of the Standard Industrial Classification (on the basis of principal activity) but which are engaged in manufacturing as a subsidiary activity

are collected by means of the Commodity questionnaire referred to earlier. Such shipments together with shipments of goods of own manufacture of establishments forming the universe of manufacturing industries are compiled and recorded in the various industry publications.

#### (c) Shipments of goods not of own manufacture

These figures represent the net selling value at establishment (net of discounts, returns, allowances, sales taxes and excise duties and taxes and transportation charges by common or contract carriers) of all products or materials (including products transferred from other establishments of the reporting firm) sold as such in the same condition as purchased or received as transfers. For those industries which ship such goods on a rental basis, the value of shipments represents the book value of these goods. All sales of consignment goods from other countries are included.

#### (d) Other revenue

Figures represent the book value of fixed assets, if any, (new construction and machinery and equipment including major repairs, alterations, additions, modifications, installation and assembly work) produced during the year for the use of reporting establishments by the establishment's own employees and for which depreciation accounts are maintained. Included also are any revenues from the sale of electricity and from any operations performed by the establishment's own employees. such as revenue from goods produced or purchased for rental (the book value of such goods are included as part of shipments of goods of own manufacture or shipments of goods not of own manufacture), servicing revenues, commissions on sales (when not included in value of sales), revenue for companyoperated cafeterias and lunch counters and revenue from outside installation or construction work not related to the establishment's own products, sale of used materials (excluding sale of used fixed assets) research and development work, etc. As mentioned previously the figures do not include non-operating revenue such as rent, dividends, interest, etc.

#### Inventories

## (a) Manufacturing activities

Values represent the book values of manufacturing inventory owned in Canada. Inventories held for which progress payments have been received are not included. Where progress payment accounts are maintained, the change in these accounts is treated as a net adjustment to shipments. Figures consist of inventory owned at the plant and at warehouses or selling outlets which are treated as extensions of establishments for the purpose of reporting shipments. Inventory owned in transit in Canada or on consignment in Canada is included. Goods shipped abroad and held in inventory are included in shipments. Opening inventories may differ from the closing inventories of the previous year because of changes in classification, the

receipt of revised data, the inclusion of new establishments and the removal of establishments which did not operate during the survey year.

#### (b) Non-manufacturing activities

Figures represent the book value of inventory of goods purchased for re-sale as such without further processing, owned by the reporting establishments and held at plants and at any warehouses or selling outlets which are treated as extensions of establishments. Other characteristics are the same as in (a) above.

#### Value Added

#### (a) By manufacturing activities

Figures are compiled by deducting the cost of manufacturing materials, supplies, etc. and fuel and electricity consumed from the (value of shipments of goods of own manufacture adjusted for changes in the value of inventories of finished goods and goods in process).

#### (b) By non-manufacturing activities

The figures are compiled by deducting the cost of goods purchased for re-sale (adjusted for changes in the value of inventories of goods pur-

chased for re-sale) and the cost of non-manufacturing materials and supplies used from the value of shipments of goods not of own manufacture, plus other revenue.

#### (c) By Total activities

The figures consist of value added by manufacturing activities plus value added by non-manufacturing activities. This total value added figure may, in some cases, be less than value added by manufacturing activities as a result of expenditures associated with non-manufacturing exceeding revenues from such activities or because of a decrease in inventory of goods not of own manufacture exceeding the mark-up on the sale of such goods. "Value added" is sometimes referred to as net output or net production. However, to arrive at the National Accounts concept of net production, or Gross Domestic Product at "Factor cost" it would be necessary to subtract also the cost of advertising, insurance and other business expenses which are not collected as part of the annual Census of Manufactures. "Value added" figures for the primary industries, manufacturing and construction are published in DBS publication Catalogue No. 61-202, "Survey of Production".



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