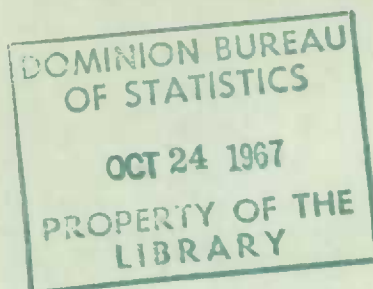


CATALOGUE No.

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ANNUAL



LIME MANUFACTURERS

1965

ANNUAL CENSUS OF MANUFACTURES

Published by Authority of
The Minister of Trade and Commerce

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LIME MANUFACTURERS

1965

This report includes statistics for industry 343 - Lime Manufacturers of the Standard Industrial Classification Manual (Catalogue No. 12-501).

Data presented in this report under the heading of Lime Manufacturers reflect the implementation of the revised Standard Industrial Classification (S.I.C.) and the New Establishment Concept which are being used by the Dominion Bureau of Statistics in its compilation of industry statistics - see items "Standard Industrial Classification" and "Establishment" in the Explanatory Notes section of this report.

Commodity statistics are shown in Table 13 and subsequent tables. These tables include data from other industries. As an example, the lime shipped by an operator classified in the chemical industry was included in Table 13. The lime producers shipped 1,620,404 tons of lime valued at \$20,134,000 in 1965 compared with 1,540,727 tons valued at \$19,409,000 in the preceding year.

Quicklime shipments totalled 1,340,386 tons of which 1,237,725 tons were sent to chemical or industrial plants and 102,661 tons were used in the building trades and other uses. Hydrated lime shipped to industrial plants amounted to 168,501 tons and there were 111,517 tons shipped to non-industrial users. The tonnage of limestone burned was estimated at 1,540,436 tons.

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.
- r revised figures.
- x confidential to meet secrecy requirements of the Statistics Act.

TABLE 1. Principal Statistics, 1961-65

Year and province	Establishments	Manufacturing activity							Total activity				
		Production and related workers			Cost of fuel and electricity	Cost of materials and supplies	Value of shipments of goods of own manufacture	Value added	Working owners and partners		Employees		Value added
		Number	Man-hours paid	Wages					Number	Withdrawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1961													
Totals	21	734	1,676	3,065	2,239	1,785	12,989	8,955	x	x	847	3,598	8,941
1962													
Totals	22	775	1,736	3,232	2,505	2,153	14,503	9,792	x	x	949	4,016	9,766
1963													
Totals	21	698	1,535	3,118	2,427	2,211	14,914	10,277	x	x	886	4,058	10,365
1964													
Newfoundland	-	-	-	-	-	-	-	-	-	-	-	-	-
Prince Edward Island	-	-	-	-	-	-	-	-	-	-	-	-	-
Nova Scotia	-	-	-	-	-	-	-	-	-	-	-	-	-
New Brunswick	1	x	x	x	x	x	x	x	-	-	x	x	x
Quebec	3	x	x	x	x	x	x	x	-	-	x	x	x
Ontario	8	318	714	1,610	1,585	1,285	8,571	5,684	x	x	366	1,865	5,674
Manitoba	3	67	145	241	184	139	1,871	1,547	-	-	101	399	1,578
Saskatchewan	-	-	-	-	-	-	-	-	-	-	-	-	-
Alberta	2	x	x	x	x	x	x	x	-	-	x	x	x
British Columbia	-	-	-	-	-	-	-	-	-	-	-	-	-
Yukon and Northwest Territories	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals	17	619	1,369	2,836	2,594	2,302	15,419	10,473	x	x	815	3,897	10,478
1965													
Newfoundland	-	-	-	-	-	-	-	-	-	-	-	-	-
Prince Edward Island	-	-	-	-	-	-	-	-	-	-	-	-	-
Nova Scotia	-	-	-	-	-	-	-	-	-	-	-	-	-
New Brunswick	1	x	x	x	x	x	x	x	-	-	x	x	x
Quebec	2	x	x	x	x	x	x	x	-	-	x	x	x
Ontario	6	331	768	1,776	1,830	1,516	9,268	5,920	x	x	373	2,016	5,887
Manitoba	3	75	165	262	207	175	1,997	1,612	-	-	117	439	1,630
Saskatchewan	-	-	-	-	-	-	-	-	-	-	-	-	-
Alberta	2	x	x	x	x	x	x	x	-	-	x	x	x
British Columbia	-	-	-	-	-	-	-	-	-	-	-	-	-
Yukon and Northwest Territories	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals	14	644	1,438	3,078	2,862	2,545	16,229	10,791	x	x	800	1,934	10,774

TABLE 2. Principal Statistics classified by Size Group based on Value of Shipments of Goods of Own Manufacture, 1964 and 1965

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers			Cost of fuel and elec- tricity	Cost of materials and supplies	Value of shipments of goods of own manu- facture	Value added	Working owners and partners		Employees		Value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000							'000		'000	
1964													
Under \$10,000	4												
\$ 10,000 to \$ 24,999		14	25	37	17	15	79	43	x	x	19	49	44
25,000 " 49,999													
50,000 " 99,999													
100,000 " 199,999													
200,000 " 499,999	3	66	147	209	144	94	544	303			72	241	329
500,000 " 999,999	3	99	212	417	236	303	1,815	1,261			110	485	1,256
1,000,000 " 4,999,999	7	440	986	2,172	2,197	1,891	12,981	8,865			508	2,542	8,838
5,000,000 and over													
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	106	581	11
Totals	17	619	1,369	2,836	2,594	2,302	15,419	10,473	x	x	815	3,897	10,478
1965													
Under \$10,000													
\$ 10,000 to \$ 24,999	4												
25,000 " 49,999		67	151	208	96	87	483	305	x	x	73	240	306
50,000 " 99,999													
100,000 " 199,999													
200,000 " 499,999													
500,000 " 999,999	4	153	309	669	448	432	2,978	2,116			175	798	2,102
1,000,000 " 4,999,999	6	424	978	2,201	2,318	2,026	12,768	8,370			478	2,505	8,324
5,000,000 and over													
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	74	391	42
Totals	14	644	1,438	3,078	2,862	2,545	16,229	10,791	x	x	800	3,934	10,774

TABLE 3. Principal Statistics classified by Size Group based on Manufacturing Value Added, 1964 and 1965

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers			Cost of fuel and elec- tricity	Cost of materials and supplies	Value of shipments of goods of own manu- facture	Value added	Working owners and partners		Employees		Value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000							'000		'000	
1964													
Under \$10,000	5												
\$ 10,000 to \$ 24,999		23	43	63	70	45	207	82	x	x	29	77	83
25,000 " 49,999													
50,000 " 99,999													
100,000 " 199,999													
200,000 " 499,999	4	118	259	433	254	216	1,433	962			126	485	985
500,000 " 999,999	4	171	385	831	677	656	4,345	2,970			208	1,037	2,958
1,000,000 " 4,999,999	4	307	683	1,508	1,591	1,384	9,434	6,459			346	1,718	6,440
5,000,000 and over													
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	106	581	11
Totals	17	619	1,369	2,836	2,594	2,302	15,419	10,473	x	x	815	3,897	10,478
1965													
Under \$10,000													
\$ 10,000 to \$ 24,999	4												
25,000 " 49,999		67	151	208	96	87	483	305	x	x	73	240	306
50,000 " 99,999													
100,000 " 199,999													
200,000 " 499,999													
500,000 " 999,999	4	153	309	669	448	432	2,978	2,116			175	798	2,102
1,000,000 " 4,999,999	6	424	978	2,201	2,318	2,026	12,768	8,370			478	2,505	8,324
5,000,000 and over													
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	74	391	42
Totals	14	644	1,438	3,078	2,862	2,545	16,229	10,791	x	x	800	3,934	10,774

TABLE 4. Principal Statistics classified by Size Group based on Total Value Added, 1964 and 1965

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers			Cost of fuel and elec- tricity	Cost of materials and supplies	Value of shipments of goods of own manu- facture	Value added	Working owners and partners		Employees		Value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000							\$'000		\$'000	
1964													
Under \$10,000	5	23	42	63	70	45	207	82	x	x	29	77	83
\$ 10,000 to \$ 24,999													
25,000 " 49,999													
50,000 " 99,999													
100,000 " 199,999	4	118	259	433	255	216	1,433	962			126	485	985
200,000 " 499,999													
500,000 " 999,999	4	171	385	831	677	656	4,345	2,970			208	1,037	2,958
1,000,000 " 4,999,999	4	307	683	1,508	1,591	1,384	9,434	6,459			346	1,718	6,440
5,000,000 and over													
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	106	581	11
Totals	17	619	1,369	2,836	2,594	2,302	15,419	10,473	x	x	815	3,897	10,478
1965													
Under \$10,000													
\$ 10,000 to \$ 24,999	4	67	151	208	96	87	483	305	x	x	73	241	306
25,000 " 49,999													
50,000 " 99,999													
100,000 " 199,999													
200,000 " 499,999	5	223	464	1,008	660	1,062	4,831	3,120			255	1,190	3,096
500,000 " 999,999	5	354	822	1,861	2,106	1,396	10,914	7,366			398	2,114	7,330
1,000,000 " 4,999,999													
5,000,000 and over													
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	74	391	42
Totals	14	644	1,438	3,078	2,862	2,545	16,229	10,791	x	x	800	3,934	10,774

TABLE 5. Principal Statistics classified by Size Group based on Total Employed, 1964 and 1965

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers			Cost of fuel and elec- tricity	Cost of materials and supplies	Value of shipments of goods of own manu- facture	Value added	Working owners and partners		Employees		Value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000							\$'000		\$'000	
1964													
Under 5 employed	5	23	43	63	70	45	207	82	x	x	29	77	83
5-14 employed													
15-49 "		7	214	470	891	590	4,604	3,460			235	1,013	3,479
50-99 "													
100-199 "	5	382	857	1,881	1,934	1,719	10,608	6,931			445	2,227	6,904
200-499 "													
500 employed and over													
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	106	581	11
Totals	17	619	1,369	2,836	2,594	2,302	15,419	10,473	x	x	815	3,897	10,478
1965													
Under 5 employed													
5-14 employed	9	234	512	1,007	741	526	5,148	3,896	x	x	251	1,114	3,890
15-49 "													
50-99 "													
100-199 "													
200-499 "	5	410	925	2,071	2,121	2,019	11,081	6,895			475	2,430	6,841
500 employed and over													
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	74	391	42
Totals	14	644	1,438	3,078	2,862	2,545	16,229	10,791	x	x	800	3,934	10,774

TABLE 6. Principal Statistics classified by Type of Organization, 1964 and 1965

Type of organization	Establishments	Manufacturing activity							Total activity				
		Production and related workers			Cost of fuel and electricity	Cost of materials and supplies	Value of shipments of goods of own manufacture	Value added	Working owners and partners		Employees		Value added
		Number	Man-hours paid	Wages					Number	Withdrawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1964													
Individual ownerships	17	619	1,369	2,836	2,594	2,302	15,419	10,473	x	x	709	3,316	10,467
Partnerships													
Incorporated companies													
Co-operatives	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	106	581	11
Totals	17	619	1,369	2,836	2,594	2,302	15,419	10,473	x	x	815	3,897	10,478
1965													
Individual ownerships	14	644	1,438	3,078	2,862	2,545	16,229	10,791	x	x	726	3,544	10,732
Partnerships													
Incorporated companies													
Co-operatives	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	74	391	42
Totals	14	644	1,438	3,078	2,862	2,545	16,229	10,791	x	x	800	3,934	10,774

TABLE 7. Calculation of Output, Input and Value Added, 1964 and 1965

	Manufacturing activity		Non-manufacturing activities		Total activity	
	1964	1965	1964	1965	1964	1965
\$'000						
Output						
1. Shipments and other revenue	15,419	16,229	374	759	15,793	16,988
Inventories—Goods of own manufacture:						
Add closing—Goods in process	24	28	...	...	24	28
Finished goods	112	224	...	...	112	224
Deduct opening—Goods in process	24	26	...	...	24	26
Finished goods	161	256	...	...	161	256
2. Net inventory change	(49)	(30)	...	...	(49)	(30)
3. Gross output (1 + 2)	15,370	16,199	374	759	15,744	16,958
Input						
4. Purchases of goods not of own manufacture .....	...	...	235	639	235	639
Inventories—Goods not of own manufacture:						
Add opening .....	...	...	82	75	82	75
Deduct closing .....	...	...	75	57	75	57
5. Cost of goods sold (not of own manufacture) .....	...	...	242	657	242	657
6. Materials, supplies, etc.	2,302	2,545	127	119	2,429	2,664
7. Fuel and electricity	2,594	2,862	...	...	2,594	2,862
8. Gross input (5 + 6 + 7)	4,896	5,407	369	776	5,265	6,183
Value added (3 - 8)	10,473	10,792	5	(17)	10,478	10,774

TABLE 8. Employment and Payroll, 1964 and 1965

Year and province	Employees										Salaries and wages				
	Production and related workers				Adminis- trative and office		Sales and distribution		Total		Production and related workers		Adminis- trative and office	Sales and distrib- ution	Total
	Manufacturing		Other								Manufacturing	Other			
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female						Manufacturing	Other
	number										\$'000				
1964															
Newfoundland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prince Edward Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nova Scotia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Brunswick	x	-	x	-	x	x	x	x	x	x	x	x	x	x	x
Quebec	x	-	x	-	x	x	x	x	x	x	x	x	x	x	x
Ontario	318	-	-	-	42	6	-	-	360	6	1,610	-	255	-	1,865
Manitoba	66	1	-	-	27	7	-	-	93	8	241	-	157	-	399
Saskatchewan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alberta	x	-	x	-	x	x	x	x	x	x	x	x	x	x	x
British Columbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yukon and Northwest Terri- tories	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals	618	1	3	-	148	30	9	6	778	37	2,836	13	951	98	3,897
1965															
Newfoundland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prince Edward Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nova Scotia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Brunswick	x	-	-	-	x	x	x	x	x	x	x	x	x	x	x
Quebec	x	-	-	-	x	x	x	x	x	x	x	x	x	x	x
Ontario	331	-	-	-	38	4	-	-	369	4	1,776	-	240	-	2,016
Manitoba	74	1	-	-	36	6	-	-	110	7	262	-	177	-	439
Saskatchewan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alberta	x	-	-	-	x	x	x	x	x	x	x	x	x	x	x
British Columbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Yukon and Northwest Terri- tories	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals	643	1	-	-	118	20	13	5	774	26	3,078	-	749	107	3,934

TABLE 9. Production and Related Workers, - Manufacturing Activity, 1964 and 1965

Month	1964		1965	
	Male	Female	Male	Female
	number			
Establishments reporting monthly detail (large establishments only):				
January	580	-	574	-
February	582	1	595	1
March	598	1	603	1
April	613	1	643	1
May	655	1	679	1
June	642	1	692	1
July	635	1	681	1
August	643	1	691	1
September	619	1	650	1
October	635	1	657	1
November	616	-	634	-
December	574	-	603	-
Averages	618	1	643	1
Establishments reporting annual averages (small establishments only) .....	...	-	...	-
Average for all establishments	618	1	643	1

Note: The total employees reported above represent 162 employees in quarry and 457 employees in kiln in 1964 and 171 employees in quarry and 473 employees in kiln in 1965.

TABLE 10. Inventories, 1965

Province	Manufacturing				Non-manufacturing	Total inventories
	Materials, supplies, etc.	Goods in process	Finished goods of own manufacture	Total	Products or materials purchased for resale	
	book value \$'000					
Opening:						
Newfoundland	—	—	—	—	—	—
Prince Edward Island	—	—	—	—	—	—
Nova Scotia	—	—	—	—	—	—
New Brunswick	x	x	x	x	x	x
Quebec	x	—	x	x	—	x
Ontario	227	6	101	335	6	341
Manitoba	71	18	11	100	64	164
Saskatchewan	—	—	—	—	—	—
Alberta	x	x	x	x	x	x
British Columbia	—	—	—	—	—	—
Yukon and Northwest Territories	—	—	—	—	—	—
Totals	442	26	256	724	75	799
Closing:						
Newfoundland	—	—	—	—	—	—
Prince Edward Island	—	—	—	—	—	—
Nova Scotia	—	—	—	—	—	—
New Brunswick	x	x	x	x	—	x
Quebec	x	—	x	x	—	x
Ontario	229	5	102	336	4	339
Manitoba	83	19	7	109	53	162
Saskatchewan	—	—	—	—	—	—
Alberta	x	x	x	x	x	x
British Columbia	—	—	—	—	—	—
Yukon and Northwest Territories	—	—	—	—	—	—
Totals	442	28	224	693	57	750

TABLE 11. Purchased Fuel and Electricity Used, 1964 and 1965

Description	1964		1965	
	Quantity	Cost	Quantity	Cost
		\$'000		\$'000
1. Large establishments reporting commodity detail:				
Bituminous coal:				
(a) From Canadian mines	ton	314	244	3
(b) Imported	"	88,202	95,312	1,237
Sub-bituminous coal (from Alberta mines only)	"	492	—	—
Anthracite coal	"	—	—	—
Lignite coal	"	9,526	8,854	56
Coke	"	—	—	—
Gasoline (including gasoline used in cars and trucks)	Imp. gal.	185,537	171,462	48
Fuel oil including kerosene or coal oil	"	7,678,690	7,491,913	611
Wood	cord	7,227	5,439	49
Gas:				
(a) Liquefied petroleum gases	Imp. gal.	3,492	4,145	1
(b) Other manufactured gas	M cu. ft.	—	—	—
(c) Natural gas	"	757,375	991,638	500
Other fuel .....	...	—	...	—
Electricity purchased	kwh.	36,078,879	39,497,178	356
Steam purchased .....	...	—	...	—
2. Small establishments not reporting commodity detail:				
Estimate for fuel and electricity .....	...	—	...	—
3. All establishments:				
Total fuel and electricity used .....	...	2,594	...	2,862

TABLE 12. Materials and Supplies Used in Manufacturing Activity, 1965

Details on materials and supplies used not collected. See Tables 1-6 for totals.

TABLE 13. Producers' Shipments¹ of Lime, by All Operators Showing Purposes for which Used² or Shipped, 1964

Uses		Shipped from plants in					
		New Brunswick	Quebec	Ontario	Manitoba	Alberta	Canada
Quicklime		tons of 2,000 pounds					
Building trades:							
Finishing lime	ton	—	10	—	3,165	8,391	11,566
	\$'000	—	—	—	80	142	223
Mason's lime	ton	976	900	1,774	528	—	4,178
	\$'000	31	15	39	9	—	93
Agriculture	ton	—	58	12,089	—	—	12,147
	\$'000	—	1	138	—	—	139
Road stabilization	ton	—	—	—	4,831	200	5,031
	\$'000	—	—	—	81	4	84
Industrial:							
Uranium plants	ton	—	2,405	43,040	—	—	45,445
	\$'000	—	15	464	—	—	479
Non-ferrous smelters	ton	—	4,639	20,741	6,045	3,338	34,763
	\$'000	—	54	224	77	57	412
Iron and steel furnaces	ton	304	17,423	242,789	10,333	2,997	273,846
	\$'000	7	210	2,772	153	46	3,188
Cyanide and flotation mills	ton	—	2,504	6,225	1,743	3,443	13,915
	\$'000	—	35	86	32	57	209
Pulp and paper mills	ton	960	132,645	24,675	12,137	4,596	175,013
	\$'000	24	1,542	278	155	78	2,077
Glass works	ton	—	3,388	—	954	—	4,342
	\$'000	—	21	—	20	—	41
Sugar refineries	ton	131	984	7,852	—	14,932	23,899
	\$'000	4	12	44	—	329	388
Tanneries	ton	—	92	762	88	25	967
	\$'000	—	3	9	2	—	14
Fertilizer plants	ton	—	2	8,300	—	150	8,452
	\$'000	—	—	94	—	3	97
Sand-lime brick plants	ton	—	4,315	18,967	—	504	23,786
	\$'000	—	43	218	—	8	269
Water and sewage treatment	ton	—	—	506	—	10,495	11,001
	\$'000	—	—	7	—	168	175
Other industrial works	ton	—	52,064	528,009	1,049	350	581,472
	\$'000	—	885	5,988	22	6	6,902
Other consumers	ton	—	14	19,002	—	555	19,571
	\$'000	—	—	219	—	10	230
Totals, quicklime	ton	2,371	221,443	934,731	40,873	49,976	1,249,394
	\$'000	66	2,818	10,579	630	906	15,020
Hydrated lime							
Building trades:							
Finishing lime	ton	—	4,671	60,608	4,317	2,394	71,990
	\$'000	—	21	1,591	133	41	1,786
Mason's lime	ton	1,254	13,618	11,405	—	420	26,697
	\$'000	28	179	215	—	7	429
Agriculture	ton	—	3,846	546	—	400	4,792
	\$'000	—	46	12	—	6	64
Road stabilization	ton	—	30	—	—	—	30
	\$'000	—	—	—	—	—	—
Industrial:							
Uranium plants	ton	—	130	—	—	1,500	1,630
	\$'000	—	1	—	—	73	73
Non-ferrous smelters	ton	—	68,085	—	—	275	68,360
	\$'000	—	374	—	—	5	378
Iron and steel furnaces	ton	—	1,250	6,914	—	—	8,164
	\$'000	—	10	113	—	—	123
Cyanide and flotation mills	ton	—	4,651	—	—	277	4,928
	\$'000	—	66	—	—	5	71
Pulp and paper mills	ton	—	13,416	2,341	—	100	15,857
	\$'000	—	225	41	—	2	268
Sugar refineries	ton	48	7,580	3,589	11,570	—	22,787
	\$'000	1	102	63	140	—	306
Tanneries	ton	—	942	2,121	—	—	3,063
	\$'000	—	11	37	—	—	48
Fertilizer plants	ton	83	5,355	—	—	200	5,638
	\$'000	2	48	—	—	3	53
Sand-lime brick plants	ton	—	6,743	—	—	690	7,433
	\$'000	—	78	—	—	10	87
Water and sewage treatment	ton	889	626	—	436	2,089	4,040
	\$'000	22	10	—	14	36	81
Other industrial works	ton	328	12,484	27,543	—	240	40,595
	\$'000	7	89	476	—	4	577
Other consumers	ton	—	4,184	—	—	1,145	5,329
	\$'000	—	24	—	—	19	44
Totals, hydrated lime	ton	2,602	147,611	115,067	16,323	9,730	291,333
	\$'000	60	1,285	2,548	287	209	4,389
Grand totals	ton	4,973	369,054	1,049,798	57,196	59,706	1,540,727
	\$'000	126	4,121	13,128	917	1,116	19,409

¹ Shipments include amounts used in producers' own works.² Not necessarily consumed in provinces where produced; includes by-product lime.

Notes: 1. Of the total quantity of 1,540,727 tons of lime produced 543,095 tons were consumed by the producers themselves. Of this latter amount 17,479 tons of hydrated lime and 465,870 of quicklime were consumed in Ontario; 45,956 tons of quicklime and 6,988 tons of hydrated lime in Quebec; and the balance, 14,932 tons of quicklime and 11,870 tons of hydrated lime in other provinces.

2. The totals in the above table include lime recovered by all producers including operators classified as establishments in the Lime Manufacturers Industry as well as other operators which have been reclassified to other industries as a result of combinations in line with the New Establishment Concept. On this account, also, value figures in the above table are higher than the value figures shown under the heading of "Value of shipments of goods of own manufacture". See Tables 1 to 12. The latter refer only to operators classified as establishments to the Lime Manufacturers Industry in accordance with the new S.I.C.

TABLE 14. Producers' Shipments¹ of Lime, by All Operators, Showing Purposes for which Used² or Shipped, 1965

Uses	Shipped from plants in					
	New Brunswick	Quebec	Ontario	Manitoba	Alberta	Canada
tons of 2,000 pounds						
Quicklime						
Building trades:						
Finishing lime	ton	10	—	6,136	6,560	12,706
\$'000	—	—	—	117	112	229
Mason's lime	ton	869	980	1,583	461	3,893
\$'000	30	18	41	7	—	96
Agriculture	ton	53	13,481	47	—	13,581
\$'000	—	1	152	1	—	154
Industrial:						
Uranium plants	ton	—	17,448	—	—	17,448
\$'000	—	—	190	—	—	190
Non-ferrous smelters	ton	4,806	9,946	5,157	2,872	22,781
\$'000	—	56	92	76	52	276
Iron and steel furnaces	ton	68	16,393	312,665	11,293	344,902
\$'000	2	202	3,696	171	72	4,143
Cyanide and flotation mills	ton	—	6,124	7,087	1,597	18,583
\$'000	—	72	92	33	64	261
Pulp and paper mills	ton	862	131,310	28,068	10,938	175,167
\$'000	22	1,548	315	143	71	2,099
Glass works	ton	—	3,322	996	—	4,318
\$'000	—	23	—	21	—	44
Sugar refineries	ton	116	840	5,712	6,761	27,672
\$'000	3	10	33	113	314	473
Tanneries	ton	—	44	891	135	1,092
\$'000	—	1	11	4	—	16
Fertilizer plants	ton	—	2	3,362	—	3,539
\$'000	—	—	38	—	3	41
Sand-lime brick plants	ton	—	5,126	17,076	—	22,848
\$'000	—	49	197	—	11	257
Water and sewage treatment	ton	—	—	620	1,176	12,834
\$'000	—	—	8	25	196	229
Other industrial works	ton	—	53,357	533,059	—	586,541
\$'000	—	907	5,741	—	2	6,650
Road stabilization	ton	—	—	5,769	2,505	8,274
\$'000	—	—	—	99	44	143
Other consumers	ton	—	36	63,790	—	64,207
\$'000	—	1	690	—	7	698
Totals, quicklime	ton	1,915	222,403	1,014,788	50,466	1,340,386
\$'000	57	2,888	11,296	808	949	15,998
Hydrated lime						
Building trades:						
Finishing lime	ton	—	4,671	64,248	1,733	72,386
\$'000	—	21	1,602	38	33	1,694
Mason's lime	ton	1,221	16,160	10,558	—	28,389
\$'000	33	232	211	—	9	486
Agriculture	ton	72	3,704	389	—	5,500
\$'000	2	35	9	—	27	73
Industrial:						
Uranium plants	ton	—	—	—	1,250	1,250
\$'000	—	—	—	—	25	25
Non-ferrous smelters	ton	—	62,876	—	—	63,175
\$'000	—	317	—	—	6	323
Iron and steel furnaces	ton	—	2,762	8,249	—	11,011
\$'000	—	28	133	—	—	161
Cyanide and flotation mills	ton	—	—	—	652	652
\$'000	—	—	—	—	12	12
Pulp and paper mills	ton	—	26,796	2,793	—	29,789
\$'000	—	340	48	—	4	392
Sugar refineries	ton	5	9,299	4,282	—	13,586
\$'000	—	153	74	—	—	227
Tanneries	ton	—	152	2,530	—	2,682
\$'000	—	2	43	—	—	45
Fertilizer plants	ton	29	5,329	—	—	5,605
\$'000	1	46	—	—	5	52
Sand-lime brick plants	ton	—	5,249	—	—	5,682
\$'000	—	61	—	—	9	70
Water and Sewage treatment	ton	212	—	—	2,388	2,600
\$'000	6	—	—	—	48	54
Other industrial works	ton	100	7,789	24,356	—	32,469
\$'000	2	44	426	—	5	477
Other consumers	ton	—	4,061	—	—	5,242
\$'000	—	23	—	—	23	46
Totals, hydrated lime	ton	1,639	148,848	117,405	1,733	280,018
\$'000	44	1,302	2,546	38	206	4,136
Grand totals	ton	3,554	371,251	1,132,193	52,199	1,620,404
\$'000	101	4,190	13,842	846	1,155	20,134

¹ Shipments include amounts used in producers' own works.

² Not necessarily consumed in provinces where produced; includes by-product lime.

Note: Of the total quantity of 1,620,404 tons of lime produced 538,368 tons were consumed by the producers themselves. Of this latter amount 13,806 tons of hydrated lime and 448,447 of quicklime were consumed in Ontario; 45,956 tons of quicklime and 9,155 tons of hydrated lime in Quebec; and the balance, 31,004 tons of quicklime in other provinces.

See Notes Table 13 and text.

TABLE 15. Producers' Shipments of Lime, 1955-65

Year	Shipped for sale	Used by producers	Total	
			Quantity	Value
		short tons		\$'000
1955	832,874	498,244	1,331,118	15,811
1956	822,812	472,887	1,295,699	15,688
1957	839,979	538,638	1,378,617	16,679
1958	1,077,763	518,659	1,596,422	19,466
1959	1,122,965	562,760	1,685,725	21,298
1960	979,725	549,843	1,529,568	19,302
1961	879,057	536,233	1,415,290	19,217
1962	848,196	576,263	1,424,459	17,647
1963	887,986	562,745	1,450,731	18,504
1964	997,632	543,095	1,540,727	19,409
1965	1,082,036	538,368	1,620,404	20,134

See Notes Table 13 and text.

TABLE 16. Producers' Shipments of Lime, by Months, 1964 and 1965

Month	1964	1965	Month	1964	1965
	tons			tons	
January	119,066	118,850	August	118,639	139,842
February	116,339	123,456	September	131,599	135,238
March	134,484	137,147	October	148,178	143,202
April	119,493	129,005	November	137,462	146,121
May	115,125	132,285	December	146,249	141,125
June	128,422	137,024			
July	125,671	137,109	Totals	1,540,727	1,620,404

See Notes Table 13 and text.

TABLE 17. Lime Shipped or Used for Chemical and Other Purposes, 1956-65

Year	Lime shipped or used for chemical and industrial purposes				Lime shipped or used for building or other non-industrial purposes			
	Quicklime		Hydrated lime		Quicklime		Hydrated lime	
	short tons	\$'000	short tons	\$'000	short tons	\$'000	short tons	\$'000
1956	861,784	10,484	208,449	1,390	85,532	1,369	139,934	2,425
1957	1,010,841	11,952	178,806	1,318	63,497	1,097	125,473	2,312
1958	1,194,054	14,289	204,595	1,498	64,035	1,083	133,738	2,596
1959	1,296,807	16,171	194,011	1,488	62,859	1,085	132,048	2,560
1960	1,168,180	14,764	196,628	1,429	45,417	846	119,343	2,264
1961	1,085,090	14,700	161,515	1,440	57,264	931	111,421	2,146
1962	1,110,853	13,069	133,623	1,366	70,205	1,080	109,778	2,132
1963	1,159,547	14,156	128,544	1,329	45,277	759	117,363	2,260
1964	1,196,901	18,640	187,824	2,110	52,493	769	103,509	2,279
1965	1,237,725	14,678	168,501	1,838	102,661	1,320	111,517	2,298

See Notes Table 13 and text.

TABLE 18. Imports and Exports of Lime, 1964 and 1965

	1964		1965	
	tons	\$'000	tons	\$'000
Imports				
From:				
United States	20,551	476	25,143	530
United Kingdom	152	2	124	2
France	88	2	67	5
Totals	20,791	480	25,334	537
Exports				
To:				
Leeward and Windward Islands	—	—	10	—
Bahamas	—	—	103	2
Pakistan	1	—	—	—
Bermuda	70	2	115	2
United States	102,725	1,171	238,318	2,660
Ghana	43	2	—	—
British Guiana	3,500	33	780	7
Netherlands Antilles	4	—	7	1
St. Pierre de Miquelon	—	—	1	—
Totals	106,343	1,208	239,334	2,672

TABLE 19. Lime Kiln Capacities,¹ 1961-65

Year	Total kilns			Kilns in use during the year		
	Number		Total capacity	Number		Total capacity
	Stack	Rotary	Tons per 24 hours	Stack	Rotary	Tons per 24 hours
1961	113	29	8,245	106	25	7,440
1962	96	30	8,429	83	26	7,196
1963	96	30	8,599	84	27	7,729
1964	81	28	8,154	65	22	6,818
1965	80	26	7,894	66	21	6,808

¹Includes lime kilns of other industries.

TABLE 20. World Production of Quicklime, Hydrated Lime, and Dead-burned Dolomite, Sold or Used

Country ¹	1961	1962	1963	1964	1965
	thousand short tons				
North America:					
Canada	1,415	1,424	1,451	1,541	1,517
Costa Rica ²	4	4	6	7	13
Guatemala	..	..	..	..	..
Honduras	11	..	..	..	..
Nicaragua	28	29	31	29	30
Puerto Rico	1	1	4	18	27
United States (sold or used by producers)	13,249	13,753	14,521	16,089	16,794
West Indies:					
Bahamas	3	2	5	3	4
Barbados (exports)	16	..	..	..	..
Dominican Republic	7	8	..	..	..
Haiti ²	180	180	180	180	180
South America:					
Argentina	1,100	..	..	..	..
Brazil	1,410	1,308	1,332	1,585	..
Colombia	90	94	107	110	117
Paraguay	19	19	19	20	20
Peru	77	88	94	102	..
Uruguay ³	36	36	33	46	66
Venezuela	38	49	55	75	72
Europe:					
Austria	784	740	759	805	753
Belgium	2,120	2,245	2,223	2,534	2,526
Bulgaria	698	766	830	913	..
Czechoslovakia	2,598	2,611	2,485	2,587	2,743
Denmark	162	162	167	176	176
Finland	245	246	229	265	270
France	3,248	3,078	2,919	3,216	2,999
Germany:					
East	3,116	3,686	3,811	4,049	4,100
West ⁴	10,939	10,690	10,775	11,920	11,714
Hungary	676	685	685	807	782
Ireland	32	33	36	47	46
Luxembourg	13	..	..	..	..
Malta	45	39	18	..	..
Norway	..	..	..	121	140
Poland	2,071	2,186	2,209	2,326	2,425
Romania	725	746	806	896	1,000
Spain	160	203	234	283	..
Sweden	983	798	853	1,071	..
Switzerland	205	212	203	221	..
U.S.S.R.	19,025	18,239	17,651	17,855	18,700
United Kingdom	..	..	..	..	..
Yugoslavia	800	847	947	999	1,226
Asia:					
Cyprus	45	50	65	44	..
Indonesia	114	..	..	..	..
Japan	1,255	1,373	1,527	1,798	1,865
Kuwait	..	..	..	13	1
Lebanon	8	10 ²	39	29	44
Mongolia ²	14	23	28	33	39
Philippines	28	47 ²	35	32	26
Ryukyu Islands	..	..	..	..	..
Saudi Arabia	..	..	..	..	..
Syrian Arab Republic	..	..	..	..	..
Taiwan	84	83	88	101	113

See footnotes at end of table.

TABLE 20. World Production of Quicklime, Hydrated Lime, and Dead-burned Dolomite, Sold or Used - Concluded

Country ¹	1961	1962	1963	1964	1965
	thousand short tons				
Africa:					
Algeria	3	3	3	3	3
Cape Verde Islands	2	3	3	3	3
Congo, Republic of (Léopoldville)	..	52	74	75	72
Ethiopia ² (including Eritrea)	5	6	5	7	4
Kenya	..	3	3	5	11
Libya ³	18	19	3	3	3
Mozambique	8	7	3	3	3
South Africa, Republic of (sales)	748	726	719	771	823
South-West Africa	4	3	3	4	4
Tanzania (sales and exports)	4	3	1	2	2
Tunisia	133	142	146	193	185
Uganda	16	18	12	13	22
Zambia	..	..	..	..	85
Oceania:					
Australia ⁴	124	139	130	144	..
Fiji Islands	4	3	6	4	20

¹ Lime is also produced in Chile, China, Ecuador, Greece, India, Iran, Israel, Italy, Republic of Korea, Mexico, Morocco, New Zealand, Pakistan, Federation of Rhodesia and Nyasaland, Rwanda, and Viet-Nam, but production data are not available. In addition, Bermuda, El Salvador, Guadeloupe, Netherlands Antilles, Sarawak and St. Thomas and Principe Islands produce less than 1,000 tons.

² Estimate.

³ Data not available.

⁴ Including Saar, beginning 1960.

⁵ Negligible.

⁶ Year ended September 10 of year stated.

⁷ Year ended June 30 of year stated.

Source: The "Minerals Yearbook" published by the United States Bureau of Mines.

Directory of Firms which Operated Lime Kilns, 1963

Includes firms classified to other industries, i.e. chemicals, construction, etc.

Name	Head office address	Location of plant
New Brunswick:		
Snowflake Lime Limited ¹	Box 954, Saint John	Saint John
Quebec:		
Aluminium Company of Canada, Limited	Box 6090, Montreal 3	Wakefield
Bousquet, Adrien	St-Dominique de Bagot	St-Dominique
Dominion Lime Limited ¹	1155 Dorchester Blvd. W., Montreal	Lime Ridge
Dontar Chemicals Ltd. (Gypsum Lime Division) ¹	1155 Dorchester Blvd. W., Montreal	Joliette
Raffinerie de Sucre de Québec	St-Hilaire Est	St-Hilaire
Shawinigan Chemicals Limited	600 Dorchester St. W., Montreal	Shawinigan Falls
Ontario:		
Bonnechere Lime Limited ¹	Carleton Place	Crattan Twp.
Brunner Mond Canada, Limited c/o Allied Chemical Canada Ltd.	1155 Dorchester Blvd. W., Montreal 2, Quebec	Anderson Twp.
Canada & Dominion Sugar Co. Ltd.	Chatham	Chatham
Canadian Gypsum Company, Limited ¹	Box 4034, Postal Station A., Toronto	Guelph Twp.
Carleton Lime Products Co. ¹	Box 1000, Carleton Place	Carleton Place
Cyanamid of Canada Limited	Niagara Falls	Niagara Falls
Dominion Magnesium Limited	Haley	Ingersoll
Dontar Chemicals Ltd. (Gypsum Lime Division) ¹	1155 Dorchester Blvd. W., Montreal	Haley
Rockwood Lime Company Ltd.	Rockwood	Beachville and Hespeler
Steel Co. of Canada Ltd., ¹ Chemical Lime Works	Ingersoll	Rockwood
		Ingersoll
Manitoba:		
B.A.C.M. Limited ¹	1500 Plessis Road, Transcona	Inwood
Manitoba Sugar Co. Ltd.	Fool Hervo St., Winnipeg	Fort Garry
Selkirk Silica Co. Ltd. ¹	491 Portage Ave., Winnipeg 2	Spearhill and Stonewall
Alberta:		
Canadian Sugar Factories Limited	306-10th St. S., Lethbridge	Picture Butte and Taber
Loder's Lime (Alberta) Limited (Lime Division) ¹	Box 1200 Station A, Calgary	Kananaskis
Summit Lime Works Limited ¹	Box 700, Lethbridge	Lethbridge

¹ These establishments comprise the industry "Lime Manufacturers" for statistical purposes.

Note: Firms in the above directory include all producers of lime including operators classified as establishments in the Lime Manufacturers Industry as well as other operators which have been reclassified to other industries as a result of combinations in line with the New Establishment Concept.

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 55 (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 135 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 reports reflect the complete implementation of these changes and enable comparisons to be made back to and including 1961. 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 its 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 statistics 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 either 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, vice-presidents, 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 company-operated 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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