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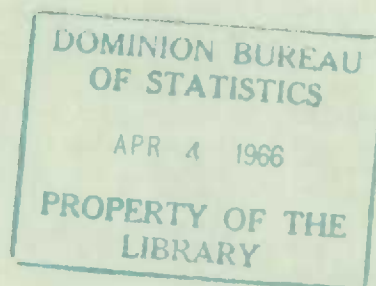


LIME MANUFACTURERS

1963

ANNUAL CENSUS
OF MANUFACTURES

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PUBLICATIONS

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A — Annual

M — Monthly

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LIME MANUFACTURERS

1963

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 7 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 7. The lime producers shipped 1,450,731 tons of lime valued at \$18,504,220 in 1963 compared with 1,424,459 tons valued at \$17,646,588 in the preceding year.

Quicklime shipments totalled 1,204,824 tons of which 1,159,547 tons were sent to chemical or industrial plants and 45,277 tons were used in the building trades. Hydrated lime shipped to industrial plants amounted to 128,544 tons and there were 117,363 tons shipped to non-industrial users. The tonnage of limestone burned was estimated at 1,269,703

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

TABLE 1 A. Principal Statistics classified by Province, 1962 and 1963

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		Total employees		Total 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													
Newfoundland	-	-	-	-	-	-	-	-	-	-	-	-	-
Prince Edward Island	-	-	-	-	-	-	-	-	-	-	-	-	-
Nova Scotia	-	-	-	-	-	-	-	-	-	-	-	-	-
New Brunswick	1	227	568	919	679	534	3,294	2,074	x	x	256	1,053	2,085
Quebec	5												
Ontario	8	350	751	1,499	1,340	1,000	7,267	4,917	x	x	461	2,008	4,886
Manitoba	3	65	139	210	163	111	1,771	1,468	-	-	67	215	1,464
Saskatchewan	-	-	-	-	-	-	-	-	-	-	-	-	-
Alberta	2	133	278	605	322	508	2,171	1,334	-	-	165	741	1,332
British Columbia	3												
Yukon and Northwest Territories	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals	22	775	1,736	3,232	2,505	2,153	14,503	9,792	x	x	949	4,016	9,766
1963													
Newfoundland	-	-	-	-	-	-	-	-	-	-	-	-	-
Prince Edward Island	-	-	-	-	-	-	-	-	-	-	-	-	-
Nova Scotia	-	-	-	-	-	-	-	-	-	-	-	-	-
New Brunswick	1	x	x	x	x	x	x	x	-	-	x	x	x
Quebec	5	144	330	841	614	478	3,138	2,051	x	x	217	995	2,025
Ontario	8	329	711	1,551	1,422	1,206	7,365	4,732	x	x	382	1,832	4,727
Manitoba	3	66	146	241	182	118	1,978	1,690	-	-	104	410	1,754
Saskatchewan	-	-	-	-	-	-	-	-	-	-	-	-	-
Alberta	2	x	x	x	x	x	x	x	-	-	x	x	x
British Columbia	2	x	x	x	x	x	x	x	-	-	x	x	x
Yukon and Northwest Territories	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals	21	698	1,535	3,118	2,427	2,211	14,914	10,277	x	x	886	4,058	10,365

Note: See footnotes page S-11 and text.

TABLE 1 B. Principal Statistics classified by Size Groups based on Shipments of Goods of Own Manufacture, 1962 and 1963

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		Total employees		Total value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000				\$'000			\$'000		\$'000	
1962													
Under \$10,000													
\$ 10,000 to \$ 24,999	3	7	14	20	8	7	51	37	x	x	9	25	37
25,000 " 49,999													
50,000 " 99,999	4	43	79	128	152	106	391	130	-	-	51	152	129
100,000 " 199,999	5	134	295	450	286	259	1,626	1,052	-	-	143	505	1,065
200,000 " 499,999	5	236	558	1,039	660	585	3,881	2,630	-	-	278	1,212	2,620
500,000 " 999,999	5	355	789	1,595	1,399	1,197	8,554	5,944	-	-	415	1,883	5,933
1,000,000 " 4,999,999													
5,000,000 and over	-	-	-	-	-	-	-	-	-	-	-	-	-
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	53	239	(18)
Totals	22	775	1,736	3,232	2,505	2,153	14,503	9,792	x	x	949	4,016	9,766
1963													
Under \$10,000													
\$ 10,000 to \$ 24,999	4	13	23	35	14	7	74	50	x	x	16	42	50
25,000 " 49,999													
50,000 " 99,999	5	67	149	198	130	96	553	316	-	-	77	246	379
100,000 " 199,999	6	218	475	951	496	642	3,806	2,669	-	-	248	1,105	2,662
200,000 " 499,999	6	400	888	1,934	1,786	1,467	10,481	7,242	-	-	460	2,260	7,234
500,000 " 999,999													
1,000,000 " 4,999,999													
5,000,000 and over	-	-	-	-	-	-	-	-	-	-	-	-	-
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	85	405	39
Totals	21	698	1,535	3,118	2,427	2,211	14,914	10,277	x	x	886	4,058	10,365

Note: See footnotes page S-11 and text.

TABLE 1 C. Principal Statistics classified by Size Groups based on Manufacturing Value Added, 1962 and 1963

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		Total employees		Total value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000				\$'000			\$'000		\$'000	
1962													
Under \$10,000													
\$ 10,000 to \$ 24,999	5	28	45	78	97	107	237	34	x	x	35	100	33
25,000 " 49,999													
50,000 " 99,999	4	68	170	223	146	109	677	415	-	-	77	266	435
100,000 " 199,999	6	228	516	938	544	506	3,149	2,063	-	-	260	1,072	2,047
200,000 " 499,999	7	451	1,004	1,993	1,717	1,431	10,440	7,281	-	-	524	2,339	7,270
500,000 " 999,999													
1,000,000 " 4,999,999													
5,000,000 and over	-	-	-	-	-	-	-	-	-	-	-	-	-
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	53	239	(18)
Totals	22	775	1,736	3,232	2,505	2,153	14,503	9,792	x	x	949	4,016	9,766
1963													
Under \$10,000													
\$ 10,000 to \$ 24,999	3	7	12	18	8	1	31	22	x	x	8	20	21
25,000 " 49,999													
50,000 " 99,999	5	41	77	126	111	83	399	193	-	-	48	149	232
100,000 " 199,999	4	115	264	415	241	177	1,459	1,048	-	-	123	465	1,074
200,000 " 499,999	6	283	612	1,321	769	1,326	6,206	4,106	-	-	338	1,617	4,094
500,000 " 999,999	3	252	570	1,238	1,299	625	6,819	4,908	-	-	284	1,402	4,904
1,000,000 " 4,999,999													
5,000,000 and over	-	-	-	-	-	-	-	-	-	-	-	-	-
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	85	405	39
Totals	21	698	1,535	3,118	2,427	2,211	14,914	10,277	x	x	886	4,058	10,365

Note: See footnotes page S-11 and text.

TABLE 1 D. Principal Statistics classified by Size Groups based on Total Value Added, 1962 and 1963

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		Total employees		Total value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000							'000		'000	
1962													
Under \$10,000	5	28	45	78	97	107	237	34	x	x	35	100	33
\$ 10,000 to \$ 24,999													
25,000 "													
50,000 "													
100,000 "	5	98	234	319	203	145	991	615	—	—	107	362	633
200,000 "	5	198	453	842	488	469	2,836	1,862	—	—	230	976	1,848
500,000 "	7	451	1,004	1,993	1,717	1,431	10,440	7,281	—	—	524	2,339	7,270
1,000,000 "													
5,000,000 and over	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	53	239	(18)
Totals	22	775	1,736	3,232	2,505	2,153	14,503	9,792	x	x	949	4,016	9,766
1963													
Under \$10,000	3	7	12	18	8	1	31	22	x	x	8	20	22
\$ 10,000 to \$ 24,999													
25,000 "													
50,000 "													
100,000 "	4	115	264	415	241	177	1,459	1,048	—	—	123	465	1,074
200,000 "	6	283	612	1,321	769	1,326	6,206	4,106	—	—	338	1,617	4,094
500,000 "	3	252	570	1,238	1,299	625	6,819	4,908	—	—	284	1,402	4,904
1,000,000 "													
5,000,000 and over	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	85	405	39
Totals	21	698	1,535	3,118	2,427	2,211	14,914	10,277	x	x	886	4,058	10,365

Note: See footnotes page S-11 and text.

TABLE 1 E. Principal Statistics classified by Size Groups based on Total Employed, 1962 and 1963

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		Total employees		Total value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000							'000		'000	
1962													
Under 5 employed	7	46	98	181	193	168	603	236	x	x	52	200	247
5- 14 employed													
15- 49 "													
50- 99 "													
100-199 "	7	510	1,157	2,293	1,813	1,588	9,798	6,378	—	—	591	2,680	6,367
200-499 "	—	—	—	—	—	—	—	—	—	—	—	—	—
500 employed and over	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	53	239	(18)
Totals	22	775	1,736	3,232	2,505	2,153	14,503	9,792	x	x	949	4,016	9,766
1963													
Under 5 employed	8	48	89	144	118	84	430	215	x	x	56	168	254
5- 14 employed													
15- 49 "													
50- 99 "													
100-199 "	6	443	984	2,136	1,803	1,657	10,071	6,610	—	—	518	2,538	6,598
200-499 "	—	—	—	—	—	—	—	—	—	—	—	—	—
500 employed and over	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	85	405	39
Totals	21	698	1,535	3,118	2,427	2,211	14,914	10,277	x	x	886	4,058	10,365

Note: See footnotes page S-11, and text.

TABLE 1 F. Principal Statistics classified by Type of Organization, 1962 and 1963

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		Total employees		Total value added
		Number	Man-hours paid	Wages					Number	Withdrawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1962													
Individual ownerships	3	7	14	20	8	7	51	37	x	x	9	25	37
Partnerships	—	—	—	—	—	—	—	—	—	—	—	—	—
Incorporated companies	19	768	1,722	3,212	2,497	2,147	14,452	9,756	—	—	887	3,752	9,748
Cooperatives	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	53	239	(18)
Totals	22	775	1,736	3,232	2,505	2,153	14,503	9,792	x	x	949	4,016	9,766
1963													
Individual ownerships	3	7	12	18	8	6	46	31	x	x	9	23	30
Partnerships	—	—	—	—	—	—	—	—	—	—	—	—	—
Incorporated companies	18	691	1,523	3,100	2,419	2,205	14,868	10,246	—	—	792	3,630	10,295
Cooperatives	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	85	405	39
Totals	21	698	1,535	3,118	2,427	2,211	14,914	10,277	x	x	886	4,058	10,365

Note: See footnotes page S-11 and text.

TABLE 2. Industry Output, Input and Value Added, 1962 and 1963

	Manufacturing activity		Non-manufacturing activities		Total activity	
	1962	1963	1962	1963	1962	1963
	\$'000					
Output						
1. Shipments and other revenue	14,503	14,914	152	576	14,655	15,490
Inventories — Goods of own manufacture:						
Add closing — Goods in process	21	24	...	...	21	24
Finished goods	158	184	...	...	158	164
Less opening — Goods in process	42	21	...	...	42	21
Finished goods	190	166	...	...	190	166
2. Net inventory change	(53)	1	...	...	(53)	1
3. Gross output (1 + 2)	14,450	14,915	152	576	14,602	15,491
Input						
4. Purchases of goods not of own manufacture .....	...	...	122	429	122	429
Inventories — Goods not of own manufacture:						
Add opening .....	...	...	7	53	7	53
Less closing .....	...	...	5	89	5	89
5. Cost of goods sold (not of own manufacture) .....	...	...	124	393	124	393
6. Materials, supplies, components and semi-processed goods	2,153	2,211	55	95	2,208	2,306
7. Fuel and electricity	2,505	2,427	...	...	2,505	2,427
8. Gross input (5 + 6 + 7)	4,658	4,638	179	488	4,837	5,126
Census value added (3 - 8)	9,792	10,277	(27)	88	9,766	10,365

Note: See footnotes page S-11 and text.

TABLE 3. Employment and Payroll, 1962 and 1963

Year and province	Employees										Salaries and wages					
	Production and related workers				Admini- trative and office		Sales and distribution		Total employees		Production and related workers		Admini- strative and office	Sales and distri- bution	Total salaries and wages	
	Manufacturing		Other								Manufacturing	Other				
	Male	Female	Male	Female	Male	Female	Male	Female	Manufacturing	Other						
	number										\$'000					
1962																
Newfoundland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Prince Edward Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Nova Scotia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
New Brunswick	}															
Quebec		227	-	-	-	24	5	-	-	251	5	919	-	134	-	1,053
Ontario		350	-	-	-	75	18	13	5	438	23	1,499	-	409	99	2,008
Manitoba		65	-	-	-	1	1	-	-	66	1	210	-	5	-	215
Saskatchewan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Alberta	}															
British Columbia		133	-	12	1	17	2	-	-	162	3	605	36	100	-	741
Yukon and Northwest Terri- tories	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Totals	775	-	12	1	117	26	13	5	917	32	3,232	36	649	99	4,016	
1963																
Newfoundland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Prince Edward Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Nova Scotia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
New Brunswick	x	-	x	-	x	x	-	-	x	x	x	x	x	-	x	
Quebec	144	-	-	-	45	12	10	6	199	18	641	-	263	91	995	
Ontario	329	-	-	-	46	7	-	-	375	7	1,551	-	281	-	1,832	
Manitoba	66	-	-	-	31	7	-	-	97	7	241	-	169	-	410	
Saskatchewan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Alberta	x	-	x	-	x	x	-	-	x	x	x	x	x	-	x	
British Columbia	x	-	x	-	x	x	-	-	x	x	x	x	x	-	x	
Yukon and Northwest Terri- tories	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Totals	698	-	2	-	139	31	10	6	849	37	3,118	13	835	91	4,058	

TABLE 3A. Production and Related Workers, - Manufacturing Activity, by Months, 1962 and 1963

Month	Establishments reporting monthly detail			
	1962		1963	
	Male	Female	Male	Female
	number			
January	704	-	700	-
February	700	-	700	-
March	733	-	646	-
April	761	-	661	-
May	803	-	729	-
June	820	-	738	-
July	827	-	719	-
August	821	-	715	-
September	805	-	715	-
October	803	-	693	-
November	794	-	672	-
December	725	-	659	-
Average for establishments reporting monthly detail (collected only for large establishments) ..	775	-	698	-
Average for small establishments (only annual averages collected) .....	...	-	...	-
Average for all establishments	775	-	698	-

Note: The total employees reported above represent 258 employees in quarry and 517 employees in kiln in 1962 and 243 employees in quarry and 455 employees in kiln in 1963.

TABLE 4. Industry Inventories, 1963

Province	Manufacturing				Non-manufacturing	Total inventories
	Raw materials and supplies	Goods in process	Finished goods of own manufacture	Total manufacturing	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	210	—	51	260	—	260
Ontario	252	14	56	322	1	324
Manitoba	86	6	10	102	48	150
Saskatchewan	—	—	—	—	—	—
Alberta	x	x	x	x	x	x
British Columbia	x	x	x	x	x	x
Yukon and Northwest Territories	—	—	—	—	—	—
Totals	636	21	166	823	53	876
Closing:						
Newfoundland	—	—	—	—	—	—
Prince Edward Island	—	—	—	—	—	—
Nova Scotia	—	—	—	—	—	—
New Brunswick	x	x	x	x	x	x
Quebec	209	—	53	262	—	262
Ontario	282	12	52	346	1	348
Manitoba	81	11	16	109	77	186
Saskatchewan	—	—	—	—	—	—
Alberta	x	x	x	x	x	x
British Columbia	x	x	x	x	x	x
Yukon and Northwest Territories	—	—	—	—	—	—
Totals	634	24	164	822	89	911

TABLE 5. Purchased Fuel and Electricity Used in Manufacturing Activity, 1962 and 1963

Description	1962		1963	
	Quantity	Cost \$'000	Quantity	Cost \$'000
1. Large establishments which reported commodity detail:				
Bituminous coal:				
(a) From Canadian mines	ton	2,574	880	12
(b) Imported	"	96,251	89,364	1,127
Sub-bituminous coal (from Alberta mines only)	"	4,031	602	5
Anthracite coal	"	-	-	-
Lignite coal	"	8,591	9,026	56
Coke	"	8	-	-
Gasoline (including gasoline used in cars and trucks)	Imp. gal.	212,836	194,466	54
Fuel oil including kerosene or coal oil	"	6,301,896	7,163,155	559
Wood	cord	9,709	6,312	42
Gas:				
(a) Liquefied petroleum gases	Imp. gal.	3,898	2,080	--
(b) Other manufactured gas	M cu.ft.	-	-	-
(c) Natural gas	"	397,478	513,911	221
Other fuel .....		...	...	1
Electricity purchased	kwh.	34,329,326	36,508,025	349
Steam purchased .....		...	...	-
2. Estimate for small establishments:				
Fuel and electricity .....		...	...	-
3. All establishments:				
Total fuel and electricity used		2,505	...	2,427

TABLE 6. Materials and Supplies Used in Manufacturing Activity, 1963

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

TABLE 7. Producers' Shipments¹ of Lime, by All Operators, showing Purposes for which Used² or Shipped, 1962

Uses	Shipped from plants in						
	New Brunswick	Quebec	Ontario	Manitoba	Alberta	British Columbia	Canada
	tons of 2,000 pounds						
Quicklime							
Building trades:							
Finishing lime..... ton	—	—	—	2,959	10,673	—	13,632
\$	—	—	—	73,975	185,790	—	259,765
Mason's lime..... ton	1,070	8,275	5,053	753	—	1,236	16,387
\$	28,406	118,702	105,956	15,141	—	34,138	303,343
Agriculture..... ton	—	109	65	—	—	1	175
\$	—	1,432	776	—	—	21	2,229
Industrial:							
Uranium plants..... ton	—	—	96,381	—	110	—	96,491
\$	—	—	1,194,254	—	1,980	—	1,196,244
Non-ferrous smelters..... ton	—	7,678	2,237	6,719	3,047	—	19,581
\$	—	90,362	25,457	104,294	51,800	—	271,913
Iron and steel furnaces..... ton	242	11,879	163,659	6,434	1,545	2,607	186,366
\$	6,424	142,949	1,856,270	111,700	27,310	45,972	2,191,125
Cyanide and flotation mills..... ton	—	8,094	6,823	1,562	1,742	648	18,669
\$	—	73,893	85,240	34,130	26,404	15,168	235,835
Pulp and paper mills..... ton	12,868	111,304	32,458	14,344	821	24,893	196,688
\$	283,466	1,290,168	280,174	185,152	12,494	428,077	2,479,531
Glass works..... ton	—	3,302	7,683	525	—	—	11,510
\$	—	20,906	109,042	11,125	—	—	141,073
Sugar refineries..... ton	113	—	5,652	—	11,219	—	16,984
\$	3,000	—	35,654	—	224,380	—	263,034
Tanneries..... ton	—	76	790	63	—	—	929
\$	—	2,104	9,037	1,660	—	—	12,801
Fertilizer plants..... ton	—	25	1,316	—	—	—	1,341
\$	—	234	14,932	—	—	—	15,166
Sand-lime brick plants..... ton	—	6,225	10,905	—	686	—	17,816
\$	—	53,027	125,008	—	9,864	—	187,899
Insecticide plants..... ton	—	—	—	—	220	—	220
\$	—	—	—	—	3,960	—	3,960
Other industrial works..... ton	—	100,826	440,885	—	—	2,247	543,958
\$	—	1,731,859	4,292,548	—	—	45,794	6,070,201
Other consumers..... ton	—	173	28,478	1,943	9,417	—	40,011
\$	—	2,439	323,484	37,328	150,977	—	514,228
Totals, quicklime..... ton	14,293	257,966	802,385	35,302	39,480	31,632	1,181,058
\$	321,296	3,528,075	8,458,842	574,505	695,459	570,170	14,148,347
Hydrated lime							
Building trades:							
Finishing lime..... ton	—	1,345	55,435	5,264	2,696	—	64,740
\$	—	6,744	1,243,777	157,313	45,832	—	1,453,666
Mason's lime..... ton	2,055	19,961	12,866	—	—	—	34,882
\$	46,237	244,417	226,556	—	—	—	517,210
Agriculture..... ton	115	875	1,093	—	—	424	2,507
\$	2,587	10,764	15,271	—	—	8,510	37,132
Industrial:							
Uranium plants..... ton	—	139	174	—	1,500	—	1,813
\$	—	1,275	2,386	—	25,500	—	29,161
Non-ferrous smelters..... ton	—	35,946	2,026	—	55	203	38,230
\$	—	163,544	28,828	—	905	4,879	198,156
Iron and steel furnaces..... ton	—	7	971	—	—	—	978
\$	—	78	14,210	—	—	—	14,288
Cyanide and flotation mills..... ton	—	21,094	1,575	—	418	86	23,173
\$	—	162,617	22,651	—	7,106	2,340	194,714
Pulp and paper mills..... ton	25	7,225	1,736	—	—	1,183	10,169
\$	563	74,466	24,505	—	—	22,978	122,512
Sugar refineries..... ton	57	9,684	810	5,585	—	—	16,136
\$	1,282	129,188	7,378	62,961	—	—	200,809
Tanneries..... ton	—	788	3,250	—	—	—	4,038
\$	—	7,228	47,155	—	—	—	54,383
Fertilizer plants..... ton	103	5,120	—	—	—	—	5,223
\$	2,318	39,769	—	—	—	—	42,087
Sand-lime brick plants..... ton	—	70	104	—	—	—	174
\$	—	642	1,356	—	—	—	1,998
Insecticide plants..... ton	—	—	560	197	—	—	857
\$	—	—	11,290	5,639	—	—	16,929
Other industrial works..... ton	433	4,329	24,667	—	702	2,701	32,832
\$	9,743	54,031	369,805	—	11,934	45,280	490,793
Other consumers..... ton	260	924	3,178	—	3,287	—	7,649
\$	5,850	8,774	53,900	—	55,879	—	124,403
Totals, hydrated lime..... ton	3,048	107,507	108,545	11,046	8,658	4,597	243,401
\$	68,580	903,537	2,069,068	225,913	147,156	83,987	3,498,241
Grand totals..... ton	17,341	365,473	910,930	46,348	48,138	36,229	1,424,459
\$	389,876	4,431,612	10,527,910	800,418	842,615	654,157	17,646,588

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 1,424,459 tons of lime produced, 576,263 tons were consumed by the producers themselves. Of this latter amount 11,192 tons of hydrated lime and 416,111 of quicklime were consumed in Ontario; 99,860 tons of quicklime and 8,829 tons of hydrated lime in Quebec; and the balance, 34,175 tons of quicklime and 6,098 tons of hydrated lime in other provinces.

Note: 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 1A-1F inclusive and Table 2. The latter refer only to operators classified as establishments to the Lime Manufacturers Industry in accordance with the new S.I.C.

TABLE 8. Producers' Shipments¹ of Lime, by All Operators, Showing Purposes for Which Used² or Shipped, 1963

Uses	Shipped from plants in						
	New Brunswick	Quebec	Ontario	Manitoba	Alberta	British Columbia	Canada
tons of 2,000 pounds							
Quicklime							
Building trades:							
Finishing lime	ton	—	2,021	3,238	8,437	—	13,696
\$	—	—	37,098	82,050	148,168	—	287,316
Mason's lime	ton	999	1,462	326	—	—	8,699
\$	26,714	88,235	38,702	6,718	—	—	160,369
Agriculture	ton	70	705	207	—	159	1,141
\$	—	1,149	8,034	3,462	—	3,937	16,582
Industrial:							
Uranium plants	ton	8,305	90,852	—	100	—	97,257
\$	—	40,985	1,086,028	—	1,800	—	1,128,813
Non-ferrous smelters	ton	7,715	4,143	8,515	3,437	—	21,810
\$	—	89,050	41,527	95,354	58,429	—	284,360
Iron and steel furnaces	ton	108	12,246	194,009	11,290	415	220,540
\$	2,888	143,316	2,227,731	180,577	40,718	7,689	2,802,919
Cyanide and flotation mills	ton	—	6,517	1,564	2,841	252	14,024
\$	—	35,900	83,298	32,909	45,291	5,441	202,839
Pulp and paper mills	ton	13,340	126,120	25,758	14,772	10,866	192,557
\$	296,198	1,459,413	259,341	182,852	26,334	177,304	2,401,442
Glass works	ton	—	—	696	—	—	3,209
\$	—	14,185	—	14,419	—	—	28,604
Sugar refineries	ton	125	5,784	—	13,481	—	19,390
\$	3,343	—	33,363	—	283,101	—	319,807
Tanneries	ton	94	727	77	—	—	898
\$	—	2,571	8,456	2,005	—	—	13,032
Fertilizer plants	ton	—	2,827	—	—	—	2,831
\$	—	90	32,476	—	—	—	32,566
Sand-lime brick plants	ton	—	15,520	—	846	—	20,866
\$	—	45,011	177,118	—	13,536	—	235,665
Insecticide plants	ton	—	—	—	230	—	230
\$	—	—	—	—	4,140	—	4,140
Other industrial works	ton	75,548	488,798	—	1,200	389	565,935
\$	—	1,709,780	5,163,602	—	18,000	10,266	6,901,648
Other consumers	ton	—	8,569	2,082	10,597	—	21,741
\$	—	7,148	98,805	39,133	169,908	—	314,994
Totals, quicklime	ton	14,572	244,370	847,692	40,767	12,081	1,204,824
\$	329,143	3,636,833	9,295,579	639,479	809,425	204,637	14,915,096
Hydrated lime							
Building trades:							
Finishing lime	ton	—	1,658	55,076	5,477	2,348	64,559
\$	—	15,865	1,317,725	166,611	39,918	—	1,539,917
Mason's lime	ton	1,339	16,091	11,613	—	—	29,043
\$	30,563	198,462	206,762	—	—	—	435,787
Agriculture	ton	112	4,912	1,971	—	100	7,354
\$	2,556	48,393	28,832	—	1,700	4,994	86,475
Industrial:							
Uranium plants	ton	—	105	—	1,500	—	1,605
\$	—	—	1,558	—	25,500	—	27,058
Non-ferrous smelters	ton	—	787	—	60	50	39,316
\$	—	190,492	11,871	—	1,040	877	204,280
Iron and steel furnaces	ton	—	170	—	—	—	820
\$	—	8,216	2,640	—	—	—	8,856
Cyanide and flotation mills	ton	—	670	—	180	92	11,499
\$	—	103,645	10,043	—	3,060	1,913	118,661
Pulp and paper mills	ton	—	1,770	—	—	145	8,599
\$	—	73,027	25,340	—	—	2,415	100,782
Sugar refineries	ton	51	6,189	1,190	8,435	—	15,865
\$	1,164	86,523	13,499	97,162	—	—	198,348
Tanneries	ton	—	835	3,279	—	—	4,114
\$	—	8,271	48,625	—	—	—	56,896
Fertilizer plants	ton	94	505	—	—	—	599
\$	2,146	2,292	—	—	—	—	4,438
Sand-lime brick plants	ton	—	5,149	274	—	460	5,883
\$	—	65,289	4,228	—	7,820	—	77,337
Insecticide plants	ton	—	86	581	200	—	867
\$	—	822	10,788	5,700	—	—	17,310
Other industrial works	ton	421	15,510	22,382	—	730	39,377
\$	9,609	112,376	374,408	—	12,410	8,330	515,133
Other consumers	ton	330	6,586	5,385	—	4,106	16,407
\$	7,532	38,187	82,325	—	69,802	—	197,848
Totals, hydrated lime	ton	2,347	113,831	105,253	14,112	880	245,907
\$	53,570	949,660	2,138,644	269,473	161,248	16,529	3,589,124
Grand totals	ton	16,919	358,201	952,945	54,879	12,961	1,450,731
\$	382,713	4,586,493	11,434,223	908,952	970,673	221,166	18,504,220

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 1,450,731 tons of lime produced 562,745 tons were consumed by the producers themselves. Of this latter amount, 13,076 tons of hydrated lime and 425,601 tons of quicklime were consumed in Ontario; 74,344 tons of quicklime and 5,837 tons of hydrated lime in Quebec; and the balance, 35,034 tons of quicklime and 8,863 tons of hydrated lime, in other provinces.

See Notes page S-11 and text.

TABLE 9. Producers' Shipments of Lime, 1954-63

Year	Shipped for sale	Used by producers	Total	
			Quantity	Value
		short tons		\$
1954	753,426	461,413	1,214,839	14,742,149
1955	832,874	498,244	1,331,118	15,810,904
1956	822,812	472,887	1,295,699	15,667,598
1957	839,979	538,638	1,378,617	16,678,614
1958	1,077,763	518,659	1,596,422	19,465,823
1959	1,122,965	562,760	1,685,725	21,298,021
1960	979,725	549,843	1,529,568	19,301,790
1961	879,057	536,233	1,415,290	19,217,371
1962	848,196	576,263	1,424,459	17,646,588
1963	887,986	562,745	1,450,731	18,504,220

See Notes page S-11 and text.

TABLE 10. Producers' Shipments of Lime, by Months, 1962 and 1963

Month	1962	1963	Month	1962	1963
	tons			tons	
January	119,714	105,486	August	119,283	118,160
February	105,947	110,722	September	99,967	116,503
March	124,980	123,064	October	116,948	136,468
April	119,097	125,460	November	120,281	117,621
May	133,188	135,154	December	110,845	118,306
June	127,717	117,582			
July	126,492	126,205	Totals	1,424,459	1,450,731

See Notes page S-11 and text.

TABLE 11. Lime Shipped or Used for Chemical and Other Purposes, 1954-63

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	\$	short tons	\$	short tons	\$	short tons	\$
1954	810,421	9,901,119	188,862	1,239,630	63,688	1,360,995	131,848	2,240,405
1955	904,600	10,755,573	216,582	1,424,904	91,039	1,465,968	118,897	2,164,459
1956	861,784	10,483,983	208,449	1,389,639	85,532	1,368,877	139,934	2,425,099
1957	1,010,841	11,951,726	178,806	1,318,136	63,497	1,096,779	125,473	2,311,973
1958	1,194,054	14,288,951	204,595	1,498,338	64,035	1,082,501	133,738	2,596,033
1959	1,296,807	16,171,264	194,011	1,487,958	62,859	1,084,639	132,048	2,560,160
1960	1,168,180	14,763,974	196,628	1,428,617	45,417	845,599	119,343	2,263,600
1961	1,085,090	14,699,931	161,515	1,439,564	57,264	931,456	111,421	2,146,420
1962	1,110,853	13,068,782	133,623	1,365,830	70,205	1,079,565	109,778	2,132,411
1963	1,159,547	14,155,835	128,544	1,329,099	45,277	759,261	117,363	2,260,025

See Notes page S-11 and text.

TABLE 12. Imports and Exports of Lime, 1962 and 1963

	1962		1963	
	tons	\$	tons	\$
Imports				
From:				
United States	35,909	550,213	44,110	709,207
United Kingdom	206	3,750	163	2,993
France	-	-	18	1,357
Totals	36,115	553,963	44,291	713,557
Exports				
To:				
Bermuda	-	-	80	3,101
United States	71,077	1,004,585	95,690	1,114,088
St-Pierre	1	58	-	-
British Guiana	500	4,588	2,310	23,723
Netherlands Antilles	5	290	4	250
Totals	71,583	1,009,519	98,084	1,141,160

TABLE 13. Lime Kiln Capacities,¹ 1959-63

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
1959	125	26	7,551	115	22	6,815
1960	119	29	8,408	105	24	7,190
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

¹ Includes lime kilns of other industries.

TABLE 14. World Production of Quicklime, Hydrated Lime, and Dead-burned Dolomite, Sold or Used

Country ¹	1959	1960	1961	1962	1963
	thousand short tons				
North America:					
Canada	1,686	1,530	1,415	1,424	1,440
Costa Rica ²	3	4	4	4	6
Honduras	14	12	11	"	"
Nicaragua	27	27	28	29	31 ²
Puerto Rico	10	1	1	1	4
United States (sold or used by producers)	12,456	12,934	13,249	13,752	14,521
West Indies:					
Bahamas	4	3	3	2	3
Barbados	"	11	"	"	"
Dominican Republic	16 ¹	8	8 ³	7	"
Haiti ²	180	180	180	180	180
South America:					
Argentina	1,100 ²	1,100 ²	1,100 ²	"	"
Brazil	1,224	1,179	1,410	1,308	"
Colombia	83	88	90	94	107
Paraguay	11	15	15	16	14
Peru	74	85	77	88	94
Uruguay ²	36	36	36	36	33
Venezuela	50	43	38	49	53
Europe:					
Austria	696	747	784	740	759
Belgium	1,955	2,125	2,120	2,245	2,222
Bulgaria	399	474	698	766	"
Czechoslovakia	2,263	2,543	2,598	2,611	"
Denmark	134	146	162	162	160 ²
Finland	217	236	245	243	234
France	2,856	3,224	3,248	3,078	5,790
Germany:					
East	3,343	3,363	3,116	3,686	"
West	9,620	10,702 ⁴	10,939	10,690	10,775
Hungary	590	643	676	690	685
Ireland	33	32	32	"	39
Luxembourg	47	39	13	...	...
Malta	"	44	45	39	"
Poland	2,025	2,048	2,071	2,186	2,667
Rumania	634	658	724	746	"
Spain	72	126	286	203	"
Sweden	900	1,033	"	"	"
Switzerland	147	185	205	212	203
U.S.S.R.	16,784	17,790	18,955	18,237	18,700 ²
United Kingdom	2,240	"	"	"	"
Yugoslavia	681	767	800	847	947
Asia:					
Indonesia	93	119	"	"	"
Japan	"	"	"	1,291	1,511
Lebanon	"	8 ²	8	10 ²	39
Philippines	51	21	28	47	"
Ryuku Islands	2	1	3	1	"
Saudi Arabia	"	"	"	"	7
Syrian Arab Republic	12	"	"	"	"
Taiwan	47	49	84	83	88

See footnotes at end of table.

TABLE 14. World Production of Quicklime, Hydrated Lime, and Dead-burned Dolomite, Sold or Used - Concluded

Country ¹	1959	1960	1961	1962	1963
thousands short tons					
Africa:					
Algeria	9	18	3	3	3
Cape Verde Islands	3	1	2	5	3
Ethiopia ²	3	3	5	8	5
Libya ³	15	17	18	19	3
Mozambique	3	12	3	3	3
South Africa, Republic of (sales)	849	852	758	726	3
South-West Africa	4	3	4	3	3
Tanganyika	4	4	4	3	1
Tunisia	99	139	133	142	158
Uganda	11	17	16	18	3
Oceania:					
Australia ⁴	130	125	124	3	3
Fiji Islands	5	3	4	3	6

¹ Lime is also produced in Chile, China, Republic of the Congo, Ecuador, Greece, Guatemala, India, Iran, Israel, Italy, Republic of Korea, Mexico, Morocco, New Zealand, Pakistan, Federation of Rhodesia and Nyasaland, Ruanda-Urundi, 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:		
Bathurst Power & Paper Co. Ltd.	Bathurst	Bathurst
Snowflake Lime Limited ²	Box 954, Saint John	Saint John
Quebec:		
Aluminium Company of Canada, Limited	Box 6090, Montreal 3	Wakefield
Bousquet, Adrien ¹	St-Dominique de Bagot	St-Dominique
Dominion Lime Limited ¹	Lime Ridge	Lime Ridge
Domtar Chemicals Ltd. (Gypsum Lime Division) ¹	Box 506, Station F., Toronto 5, Ontario	St. Marc des Carrières and St. Paul de Joliette
Lamothe, N. ³	Pont Rouge	Pont Rouge
Raffinerie de Sucre de Québec	St-Hilaire Est	St-Hilaire
Shawinigan Chemicals Limited	600 Dorchester St. W., Montreal	Shawinigan Falls
Ontario:		
Bonnechere Lime Limited ²	Carleton Place	Grattan Twp.
Brunner Mond Canada, Limited c/o Allied Chemical Canada Ltd.	1155 Dorchester Blvd. W., Montreal 2, Quebec	Anderdon 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 100, Carleton Place	Carleton Place
Chemical Lime Limited ¹	Box 100, Ingersoll	Ingersoll
Cyanamid of Canada Limited	Niagara Falls	Niagara Falls
Dominion Magnesium Limited	Haley	Ingersoll
Domtar Chemicals Ltd. (Gypsum Lime Division) ¹	Box 506, Station F., Toronto 5,	Haley
Indusmin Ltd. ¹	7 King St. E., Toronto	Beachville and Hespeler
Rockwood Lime Company Ltd. ¹	Rockwood	Coboconk
Manitoba:		
Building Products & Coal Co. Ltd. ¹	111 Christie St., Winnipeg	Rockwood
Domtar Construction Materials Ltd. (Gypsum Division) ¹	Box 506, Station F., Toronto 5, Ontario	Inwood
Manitoba Sugar Co. Ltd.	Box 608, Winnipeg 1	Winnipeg
Selkirk Silica Co. Ltd. ¹	491 Portage Ave., Winnipeg 2	Fort Garry
Western Gypsum Products Ltd. ²	Clarkson, Ontario	Spearhill and Stonewall
Alberta:		
Canadian Sugar Factories Limited	306-10th St. S., Lethbridge	Winnipeg
Loder's Lime (Alberta) Limited (Lime Division) ¹	Box 1200 Station A, Calgary	Raymond, Picture Butte and Taber
Summit Lime Works Limited ¹	Box 700, Lethbridge	Kananaskis
British Columbia:		
Chow Zellerbach Canada Limited	Box 2079, Vancouver 3,	Lethbridge
Domtar Chemicals Ltd. (Gypsum Lime Division) ¹	Box 506, Station F., Toronto 5, Ontario	Ocean Falls and Elk Falls
		Blubber Bay and Granville Island

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

² Purchases quicklime, makes hydrated lime.

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 58 (4 digit) sub classes. At the Canada level, principal statistics are collected and compiled for 178 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 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 activity

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. 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. 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.). 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 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



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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 materials and fuel and electricity consumed from the value of production (value of shipments 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 the cost of goods purchased for re-sale (adjusted for changes in the value of inventories of goods

purchased for re-sale) and the cost of other 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 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".