

# Mineral Aggregates

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**T**otal Canadian shipments of regular weight mineral aggregates in 2001 have been estimated to be 342 Mt, based on preliminary data, compared to 350 Mt in 2000, based on final data. Specifically, these data relate to the combined amounts of crushed stone and miscellaneous stone and sand and gravel, essentially all for construction uses (Table 1, By Use, and Table 2, respectively). Relevant subtotals of shipments of crushed stone and miscellaneous stone by rock type, e.g., limestone, granite and other types of stone, are included in a separate commodity chapter entitled "Stone."

The federal budget for 2001 announced the creation of a Strategic Infrastructure Foundation having a minimum federal commitment of \$2 billion to assist large infrastructure projects and encourage public-private partnerships. This funding program is in addition to the Infrastructure Canada Program, which has been allocated \$2.05 billion over six years (2000-01 to 2005-06). The latter is a cost-shared program expected to result in total construction-related spending of about \$6 billion when combined with contributions from other partners.

Trade in construction aggregates, mainly with the United States, is growing in importance in Atlantic Canada and British Columbia. The level of funding planned under the U.S. *Transportation Equity Act for the 21<sup>st</sup> Century* remains uncertain; however, this is not expected to affect markets for strategically located producers in Canada.

The demand for construction aggregates in 2002 is expected to be about the same as the previous year because growth in residential construction will be offset by a decline in non-residential building. The average unit values of construction aggregates shipped, as reported by producers, generally continued to increase in pace with the rate of inflation, with

selling prices varying considerably depending on proximity to consumers.

Information on lightweight aggregates, including ferrous slags, is included in Tables 6-11, inclusive.

*Notes: (1) For definitions and valuation of mineral production, shipments and trade, please refer to Chapter 64. (2) Information in this review was current as of February 2, 2002. (3) This and other reviews, including previous editions, are available on the Internet at [www.nrcan.gc.ca/mms/cmy/index\\_e.html](http://www.nrcan.gc.ca/mms/cmy/index_e.html).*

## **NOTE TO READERS**

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**TABLE 1. CANADA, TOTAL PRODUCTION OF STONE, 1999-2001**

Item No.	1999		2000		2001 (p)	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
<b>BY PROVINCE/TERRITORY (1)</b>						
Newfoundland and Labrador	3 091	20 206	4 505	27 859	3 794	27 677
Nova Scotia	7 881	48 064	8 379	51 246	8 413	51 949
New Brunswick	4 388	23 141	3 294	19 429	4 003	17 201
Quebec	30 269	218 744	31 550	229 984	32 508	240 411
Ontario	51 258	385 675	58 704	474 155	59 861	471 779
Manitoba	4 314	20 089	4 007	19 688	3 424	17 092
Saskatchewan	—	—	x	x	x	x
Alberta	465	4 623	x	x	x	x
British Columbia	7 440	54 505	6 636	49 172	6 663	47 923
Northwest Territories	78	452	186	2 952	187	2 535
<b>Total</b>	<b>109 184</b>	<b>775 499</b>	<b>118 222</b>	<b>881 260</b>	<b>119 805</b>	<b>884 081</b>
<b>BY USE (2)</b>						
<b>Stone (Dimension)</b>						
Dimension stone						
Rough	315	41 031	360	50 388	..	..
Monumental and ornamental stone (n.f.)	88	7 939	111	10 598	..	..
Other (flagstone, curbstone, paving blocks, etc.)	104	13 550	105	16 311	..	..
<b>Total dimension stone</b>	<b>507</b>	<b>62 520</b>	<b>576</b>	<b>77 297</b>	<b>..</b>	<b>..</b>
<b>Stone (Crushed)</b>						
Crushed stone for						
Concrete aggregate	20 718	122 299	21 830	131 073	..	..
Asphalt aggregate	11 097	69 608	11 509	72 753	..	..
Road metal	30 663	165 040	36 478	192 907	..	..
Railroad ballast (includes traprock)	1 830	15 437	1 681	14 375	..	..
Other uses	34 873	181 907	36 061	201 603	..	..
Chemical and metallurgical						
Cement plants, Canada	14 082	50 085	14 776	44 570	..	..
Cement plants, foreign	525	1 919	539	2 273	..	..
Flux in iron and steel furnaces	1 295	10 476	680	6 279	..	..
Flux in nonferrous smelters	101	818	100	1 519	..	..
Glass factories	163	2 739	51	738	..	..
Lime plants, Canada	5 261	19 877	3 184	19 513	..	..
Lime plants, foreign	1 229	6 269	1 437	8 586	..	..
Pulp and paper mills	96	1 120	118	1 271	..	..
Sugar refineries	—	—	—	—	..	..
Other chemical uses	1 550	9 360	1 763	12 777	..	..
Miscellaneous stone						
Manufacture of artificial stone	3	120	2	68	..	..
Roofing granules	751	27 309	873	37 348	..	..
Poultry grit	176	1 775	173	1 427	..	..
Stucco dash	25	2 682	23	3 985	..	..
Terrazzo chips	7	303	9	666	..	..
Rock wool	26	424	25	431	..	..
Rubble and riprap	942	4 415	1 257	4 476	..	..
Other uses	1 090	8 506	1 562	8 245	..	..
Pulverized stone						
Whiting	274	9 956	44	3 971	..	..
Asphalt filler	178	247	200	363	..	..
Dusting coal mines	2	145	1	51	..	..
Agricultural purposes and fertilizer plants	1 049	15 377	1 113	18 500	..	..
Other uses	897	58 632	1 064	82 428	..	..
<b>Total crushed stone</b>	<b>128 903</b>	<b>786 848</b>	<b>136 554</b>	<b>872 196</b>	<b>..</b>	<b>..</b>
<b>Total all stone</b>	<b>129 410</b>	<b>849 368</b>	<b>137 130</b>	<b>949 493</b>	<b>..</b>	<b>..</b>

Source: Natural Resources Canada.

— Nil; .. Not available; n.f. Not finished or dressed; (p) Preliminary.

(1) Data exclude stone used in the Canadian cement, lime and clay industries. (2) Data include stone used in the Canadian cement, lime and clay industries.

Note: Numbers may not add to totals due to rounding.

**TABLE 2. CANADA, PRODUCTION OF SAND AND GRAVEL,<sup>(1)</sup> BY PROVINCE AND TERRITORY, 1999-2001**

Item No.	1999		2000		2001 (p)	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
Newfoundland and Labrador	(r) 3 718	(r) 9 875	2 911	12 371	2 924	12 128
Prince Edward Island	257	1 258	258	1 260	258	1 260
Nova Scotia	2 250	10 605	2 547	11 591	2 549	11 670
New Brunswick	4 492	13 190	3 356	10 716	3 041	10 356
Quebec	30 274	83 473	31 569	84 438	27 429	77 326
Ontario	105 714	408 321	99 848	395 832	96 466	390 272
Manitoba	10 428	29 989	9 571	26 968	9 128	26 855
Saskatchewan	11 094	37 865	11 064	39 151	11 700	44 905
Alberta	41 229	195 630	42 372	208 591	40 123	206 439
British Columbia	32 615	164 019	33 872	174 742	30 741	166 704
Yukon	807	2 105	1 087	2 966	1 378	3 428
Northwest Territories	374	4 453	446	2 535	254	1 837
Total	(r) 243 250	(r) 960 785	238 901	971 159	225 991	953 181

Source: Natural Resources Canada.

(p) Preliminary; (r) Revised.

(1) Production represents shipments of natural gravel, sand and crushed gravel. Does not include shipments to Canadian cement plants.

Note: Numbers may not add to totals due to rounding.

**TABLE 3. AVAILABLE DATA ON USE OF SAND AND GRAVEL, BY REGION, 1999 AND 2000**

	Year	Atlantic	Quebec	Ontario	Western	Canada
		Provinces			Provinces (1)	
		(000 tonnes)				
Road bed, surface	1999	4 210	18 097	42 086	47 324	111 717
	2000	3 335	20 584	35 969	48 867	108 754
Roads, ice control	1999	655	672	3 024	2 107	6 458
	2000	496	681	1 999	2 494	5 670
Concrete aggregate	1999	1 769	3 477	13 030	16 180	34 457
	2000	1 583	3 648	13 969	18 586	37 786
Asphalt aggregate	1999	634	2 648	8 154	10 021	21 457
	2000	877	2 460	8 070	11 026	22 433
Railroad ballast	1999	22	19	4	210	255
	2000	–	4	2	132	138
Mortar sand	1999	42	206	1 367	239	1 853
	2000	46	315	1 032	253	1 645
Backfill for mines	1999	286	21	1 244	249	1 801
	2000	364	139	1 210	181	1 893
Fill	1999	1 409	2 970	11 429	7 173	22 981
	2000	1 117	2 255	9 352	5 231	17 954
Other purposes	1999	853	2 165	25 770	13 246	42 034
	2000	1 326	1 485	28 391	11 685	42 886
Total	1999	9 880	30 274	106 109	96 751	243 013
	2000	9 143	31 569	99 993	98 455	239 160

Source: Natural Resources Canada.

– Nil.

(1) The western provinces include the Yukon and Northwest Territories.

Note: Numbers may not add to totals due to rounding.

TABLE 4. CANADA, EXPORTS AND IMPORTS OF SAND AND GRAVEL AND CRUSHED STONE, 1999-2001

Item No.	1999		2000		2001 (p)	
	(tonnes)	(\$000)	(tonnes)	(\$000)	(tonnes)	(\$000)
<b>EXPORTS</b>						
2505.90	Natural sands n.e.s., excluding metal-bearing sands					
United States	452 415	5 060	456 377	4 736	512 754	4 266
Cayman Islands	—	—	—	—	37 307	789
Chile	56	17	—	—	231	82
Trinidad and Tobago	101	16	202	33	99	17
Mexico	76	24	—	—	2	...
Saint Pierre and Miquelon	30	10	—	—	—	—
Iceland	4 313	285	—	—	—	—
Malaysia	39	14	—	—	—	—
Venezuela	427	156	455	99	—	—
Bahamas	41 220	968	61 811	1 258	—	—
Bermuda	16 066	153	—	—	—	—
Barbados	53 538	1 719	—	—	—	—
Philippines	—	—	201	30	—	—
Argentina	—	—	313	67	—	—
Total	568 281	8 422	519 359	6 223	550 393	5 154
2517.10	Pebbles, gravel, broken or crushed stone used for aggregates, etc.					
United States	3 287 916	33 381	3 130 583	31 944	4 884 125	48 362
Barbados	15 832	467	—	—	27 644	757
France	—	—	—	—	5	11
Venezuela	—	—	—	—	13	...
Germany	57	1	—	—	—	—
Iceland	3 715	243	—	—	—	—
Bahamas	45 865	1 103	47 239	1 079	—	—
Bermuda	4 743	50	18 965	191	—	—
Japan	—	—	6	47	—	—
Jamaica	—	—	44 631	931	—	—
Panama	—	—	536 580	1 258	—	—
Total	3 358 128	35 245	3 778 004	35 450	4 911 787	49 130
2517.41	Marble granules, chippings and powder of 25.15 or 25.16, heat-treated or not					
United States	267 109	37 943	347 873	56 015	49 078	8 983
France	85	15	—	—	—	—
Total	267 194	37 958	347 873	56 015	49 078	8 983
2517.49	Granules, chippings and powder, n.e.s., of 25.15 or 25.16, heat-treated					
Bahamas	—	—	—	—	26 050	649
United States	1 427	118	100 810	6 089	9 347	612
Other countries	39 728	1 021	43	14	123	8
Total	41 155	1 139	100 853	6 103	35 520	1 269
2518.10	Dolomite, not calcined					
United States	2 082 332	21 650	2 800 364	28 836	2 872 450	30 076
Venezuela	75 889	1 034	423 821	4 436	292 434	3 250
Mexico	227 070	2 022	311 456	2 771	142 974	1 336
Trinidad and Tobago	—	—	109 469	1 976	38 738	740
Romania	5	94	73	14	91	18
Brazil	—	—	26 445	161	—	—
Total	2 385 296	24 800	3 671 628	38 194	3 346 687	35 420
2518.20	Calcined dolomite					
United States	29 466	6 696	15 749	4 112	11 134	4 648
India	110	30	—	—	—	—
Total	29 576	6 726	15 749	4 112	11 134	4 648

TABLE 4 (cont'd)

Item No.	1999		2000		2001 (p)		
	(tonnes)	(\$000)	(tonnes)	(\$000)	(tonnes)	(\$000)	
<b>EXPORTS (cont'd)</b>							
2521.00	Limestone flux; limestone and other calcareous stone used for lime or cement						
	United States	2 521 646	16 487	2 856 799	18 632	2 360 689	15 517
	Mexico	—	—	35 322	293	61 543	531
	India	—	—	—	—	4 694	24
	Cuba	—	—	—	—	237	...
	<b>Total</b>	<b>2 521 646</b>	<b>16 487</b>	<b>2 892 121</b>	<b>18 925</b>	<b>2 427 163</b>	<b>16 072</b>
<b>IMPORTS</b>							
2505.90	Natural sands n.e.s., excluding metal-bearing sands						
	United States	301 865	7 981	322 305	9 110	131 667	7 285
	South Africa	1	...	171	30	15 820	1 836
	China	160	44	492	128	1 270	307
	Australia	30	7	59	13	1 349	80
	Philippines	533	35	239	51	216	44
	France	99	9	4	1	143	30
	United Kingdom	1 320	46	168	41	144	25
	Other countries	851	128	2 652	107	207	30
	<b>Total</b>	<b>304 859</b>	<b>8 250</b>	<b>326 090</b>	<b>9 481</b>	<b>150 816</b>	<b>9 637</b>
2517.10	Pebbles, gravel, broken or crushed stone used for aggregates, etc.						
	United States	(r) 3 171 469	(r) 17 708	3 085 293	16 859	3 052 765	16 265
	Israel	—	—	18 364	74	50 045	216
	China	7 674	73	8 976	137	16 025	212
	Norway	—	—	—	—	17 000	135
	United States (minor outlying islands)	—	—	—	—	17 041	61
	United Kingdom	1 316	49	695	67	2 600	52
	France	1 578	14	1 979	20	5 684	35
	Brazil	494	5	280	3	261	26
	India	3	...	36	1	143	18
	Germany	219	2	19	1	1 038	13
	Philippines	1 035	12	2 527	48	1 237	13
	Other countries	1 611	13	9 109	104	1 139	15
	<b>Total</b>	<b>(r) 3 185 399</b>	<b>(r) 17 876</b>	<b>3 127 278</b>	<b>17 314</b>	<b>3 164 978</b>	<b>17 061</b>
2517.20	Macadam of slag, dross or similar industrial waste, etc.						
	United States	5 209	34	30 179	229	8 399	61
	Other countries	317	2	1 464	11	99	1
	<b>Total</b>	<b>5 526</b>	<b>36</b>	<b>31 643</b>	<b>240</b>	<b>8 498</b>	<b>62</b>
2517.30	Tarred macadam						
	United States	119	6	158	7	539	22
	<b>Total</b>	<b>119</b>	<b>6</b>	<b>158</b>	<b>7</b>	<b>539</b>	<b>22</b>
2517.41	Marble granules, chippings and powder of 25.15 or 25.16, heat-treated or not						
	United States	88 377	15 207	58 918	10 395	73 317	15 546
	Italy	155	25	187	22	75	12
	Other countries	112	18	96	18	22	4
	<b>Total</b>	<b>88 644</b>	<b>15 250</b>	<b>59 201</b>	<b>10 435</b>	<b>73 414</b>	<b>15 562</b>
2517.49	Granules, chippings and powder, n.e.s., of 25.15 or 25.16, heat-treated						
	United States	25 852	1 324	28 480	1 614	25 437	1 519
	France	109	10	210	25	1 027	80
	China	58	6	105	11	367	35
	Brazil	191	23	545	35	420	29
	Other countries	359	36	718	45	608	28
	<b>Total</b>	<b>26 569</b>	<b>1 399</b>	<b>30 058</b>	<b>1 730</b>	<b>27 859</b>	<b>1 691</b>

TABLE 4 (cont'd)

Item No.	1999		2000		2001 (p)		
	(tonnes)	(\$000)	(tonnes)	(\$000)	(tonnes)	(\$000)	
<b>IMPORTS (cont'd)</b>							
2518.10	Dolomite, not calcinated						
	United States	3 329	659	4 784	866	3 579	698
	Other countries	20	7	82	22	17	3
	<b>Total</b>	<b>3 349</b>	<b>666</b>	<b>4 866</b>	<b>888</b>	<b>3 596</b>	<b>701</b>
2518.20	Calcined dolomite						
	United States	3 078	615	3 810	761	19 436	2 683
	Canada	756	86	320	35	-	-
	<b>Total</b>	<b>3 834</b>	<b>701</b>	<b>4 130</b>	<b>796</b>	<b>19 436</b>	<b>2 683</b>
2518.30	Agglomerated dolomite (including tarred dolomite)						
	United States	159	44	556	181	556	187
	Other countries	-	-	103	37	70	25
	<b>Total</b>	<b>159</b>	<b>44</b>	<b>659</b>	<b>218</b>	<b>626</b>	<b>212</b>
2521.00	Limestone flux; limestone and other calcareous stone used for lime or cement						
	United States	(r) 4 140 469	18 286	4 026 594	17 806	4 378 082	19 771
	France	4 077	15	57 466	70	4 947	24
	Other countries	12 187	49	49 844	249	14 680	55
	<b>Total</b>	<b>(r) 4 156 733</b>	<b>18 350</b>	<b>4 133 904</b>	<b>18 125</b>	<b>4 397 709</b>	<b>19 850</b>

Source: Statistics Canada.

- Nil; . . . Amount too small to be expressed; n.e.s. Not elsewhere specified; (p) Preliminary; (r) Revised.

Note: Numbers may not add to totals due to rounding.

**TABLE 5. LIGHTWEIGHT AGGREGATE PRODUCERS IN CANADA, 2000**

Company	Location	Commodity	Remarks
<b>ATLANTIC PROVINCES</b>			
Fafard Peat Moss Company Ltd.	Inkerman, N.B.	Perlite, vermiculite	Processed for use in horticulture.
Sun Gro Horticulture Canada Ltd.	Maisonnette, N.B.	Perlite	Processed for use in horticulture.
<b>QUEBEC</b>			
Normiska Corp.	Lachine, Que. (plant)	Vermiculite, perlite	Vermiculite processed for use in loose insulation, horticulture and concrete products. Perlite processed for use in horticulture.
Premier Horticulture Perlite Canada Inc.	Rivière-du-Loup Baie-du-Febvre	Perlite, vermiculite Perlite, vermiculite	Processed for use in horticulture. Processed for use in horticulture.
<b>ONTARIO</b>			
Grace Canada, Inc.	Ajax	Vermiculite, perlite	Vermiculite processed for use in horticulture, as loose insulation, and in friction materials. Perlite processed for use in gypsum plaster, horticulture, refractories and as loose insulation.
Lafarge Canada Inc., Hamilton Slag Division	Hamilton	Slag	Used in concrete products industry.
<b>PRAIRIE PROVINCES</b>			
Cindercrete Products Ltd.	Saskatoon, Sask.	Expanded clay	Processed for concrete products industry.
Grace Canada, Inc.	Winnipeg, Man.	Vermiculite, perlite	Perlite processed for use in gypsum plaster, loose insulation and in horticulture.
	Edmonton, Alta.	Vermiculite, perlite	Vermiculite processed for use in horticulture and in friction material and loose insulation.
Inland Cement Limited	Calgary, Alta.	Expanded shale	Processed for concrete products industry and for loose insulation.
	Edmonton, Alta.	Expanded clay	Processed for concrete products industry, and for loose insulation.
Sun Gro Horticulture Canada Ltd.	Elma, Man. Seba Beach, Alta.	Perlite Perlite, pumice	Processed for use in horticulture. Processed for use in horticulture.
<b>BRITISH COLUMBIA</b>			
Canada Pumice Corporation	Nakzo, Quesnel	Pumice	A range of pumice products for construction and landscaping material.
Great Pacific Pumice Inc.	Mt. Meager	Pumice	Used in horticulture, concrete products industry and as loose insulation.
Ocean Concrete Products Limited	Vancouver	Pumice	Purchased for concrete products industry.

Source: Natural Resources Canada, reported from NRCan 2000 annual survey questionnaire "Production of Lightweight Aggregates in Canada."

**TABLE 6. CANADA, IMPORTS AND EXPORTS OF VERMICULITE, PERLITE AND PUMICE, 1999-2001**

Item No.	1999		2000		2001 (p)	
	(tonnes)	(\$000)	(tonnes)	(\$000)	(tonnes)	(\$000)
<b>EXPORTS</b>						
2513.11	Pumice stone, crude or in irregular pieces, including crushed pumice					
	United States					
	-	-	-	-	...	5
	Total					
	-	-	-	-	...	5
2530.10	Vermiculite, perlite and chlorites, unexpanded					
	Chile					
	8	6	14	8	24	13
	Dominican Republic					
	-	-	-	-	5	10
	United States					
	89	49	34	17	-	-
	Netherlands					
	2	21	-	-	-	-
	Trinidad and Tobago					
	-	-	1	...	-	-
	Total					
	..	76	..	25	..	23
<b>IMPORTS</b>						
2513.11	Pumice stone, crude or in irregular pieces, including crushed pumice					
	United States					
	4 807	782	4 985	804	5 814	742
	Turkey					
	3 877	504	5 298	684	3 423	344
	Other countries					
	159	25	149	26	81	18
	Total					
	8 843	1 311	10 432	1 514	9 318	1 104
2513.19	Pumice stone, other					
	United States					
	2 861	600	3 817	677	3 302	643
	South Korea					
	87	17	170	46	542	70
	China					
	211	44	121	30	227	65
	Other countries					
	563	120	525	128	384	72
	Total					
	3 722	781	4 633	881	4 455	850
2530.10.00.10	Vermiculite, unexpanded					
	South Africa					
	18 628	4 749	11 115	2 663	22 090	5 631
	United States					
	13 196	2 445	16 532	2 918	14 742	2 967
	Greece					
	1 792	227	181	21	1 066	152
	Other countries					
	1 990	327	1 066	202	148	40
	Total					
	35 606	7 748	28 894	5 804	38 046	8 790
2530.10.00.20	Perlite, unexpanded					
	United States					
	33 955	6 435	27 854	4 961	29 714	5 858
	Greece					
	23 915	2 632	20 974	2 554	37 589	3 859
	Other countries					
	-	-	24	10	-	-
	Total					
	57 870	9 067	48 852	7 525	67 303	9 717
3802.90.00.20	Activated perlite, excluding expanded perlite ground to be employed in					
	United States					
	438	218	503	288	638	364
	Total					
	438	218	503	288	638	364
6806.20.00.10	Exfoliated (expanded) vermiculite					
	United States					
	487	1 873	449	1 619	388	1 396
	Other countries					
	23	53	1	4	17	42
	Total					
	510	1 926	450	1 623	405	1 438
6806.20.00.20	Expanded perlite					
	United States					
	8 383	(r) 5 934	9 636	6 766	10 073	7 427
	Other countries					
	-	-	9	4	25	41
	Total					
	8 383	(r) 5 934	9 645	6 770	10 098	7 468

Source: Statistics Canada.

- Nil; .. Not available; (p) Preliminary; (r) Revised.

Note: Numbers may not add to totals due to rounding.



**TABLE 7. CANADA, LIGHTWEIGHT AGGREGATES PRODUCED, SOLD AND USED, 1999 AND 2000**

	1999				2000			
	Produced		Sold and Used		Produced		Sold and Used	
	(m <sup>3</sup> )	(\$)	(m <sup>3</sup> )	(\$)	(m <sup>3</sup> )	(\$)	(m <sup>3</sup> )	(\$)
From domestic and/or imported raw materials								
Expanded clay, shale and slag (1)	391 352	11 192 017	371 934	10 168 975	392 029	11 018 236	389 398	10 873 433
From imported crude materials								
Expanded perlite and exfoliated vermiculite (1)	658 770	35 304 186	662 770	35 548 186	675 602	38 778 030	708 095	41 036 475
<b>Total</b>	<b>1 050 122</b>	<b>46 496 203</b>	<b>1 034 704</b>	<b>45 717 161</b>	<b>1 067 631</b>	<b>49 796 266</b>	<b>1 097 493</b>	<b>51 909 908</b>

Source: Natural Resources Canada, reported from NRCan survey questionnaire "Production of Lightweight Aggregates in Canada" (see Table 5 for list of establishments surveyed).

(1) Combined to avoid disclosing confidential company data.

**TABLE 8. CANADA, SALES OF EXPANDED SLAG, PERCENTAGE BY END USE, 1998-2000**

Use	1998	1999	2000
	(%)		
Concrete block manufacture	72.6	90.0	90.0
Ready-mix concrete	5.3	10.0	10.0
Miscellaneous uses	22.1	–	–

Source: Natural Resources Canada, reported from NRCan survey questionnaire "Production of Lightweight Aggregates in Canada."

– Nil.

Notes: See Table 5 for list of establishments surveyed. Sales also imply quantities consumed for own use.

**TABLE 9. CANADA, SALES OF EXPANDED CLAY AND SHALE, PERCENTAGE BY END USE, 1998-2000**

Use	1998	1999	2000
	(%)		
Concrete block manufacture	44.2	52.7	50.1
Loose insulation	52.2	43.4	43.2
Precast concrete manufacture	1.2	2.0	2.0
Ready-mix concrete	1.1	2.0	0.7
Horticulture and miscellaneous uses	1.2	–	4.0

Source: Natural Resources Canada, reported from NRCan survey questionnaire "Production of Lightweight Aggregates in Canada."

– Nil.

Notes: See Table 5 for list of establishments surveyed. Sales also imply quantities consumed for own use.

**TABLE 10. CANADA, SALES OF EXPANDED PERLITE, PERCENTAGE BY END USE, 1998-2000**

Use	1998	1999	2000
	(%)		
Horticulture and agriculture	94.7	93.9	94.0
Loose insulation and miscellaneous uses	4.7	5.7	5.5
Insulation in gypsum products	0.6	0.4	0.5

Source: Natural Resources Canada, reported from NRCan survey questionnaire "Production of Lightweight Aggregates in Canada."

– Nil.

Notes: See Table 5 for list of establishments surveyed. Sales also imply quantities consumed for own use.

**TABLE 11. CANADA, SALES OF EXPANDED VERMICULITE, PERCENTAGE BY END USE, 1998-2000**

Use	1998	1999	2000
	(%)		
Horticulture	83.6	78.9	84.8
Loose insulation	2.9	2.6	3.0
Miscellaneous uses	13.6	18.5	12.2

Source: Natural Resources Canada, reported from NRCan survey questionnaire "Production of Lightweight Aggregates in Canada."

Notes: See Table 5 for list of establishments surveyed. Sales also imply quantities consumed for own use.