# **Potash**

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The term "potash," derived from the Dutch word potasch, originally referred to wood ash from which was extracted potassium carbonate, a basic chemical of pre-modern times. Today it applies to a suite of potassium-bearing minerals and derived chemicals: sylvite (potassium chloride, KCl or muriate of potash [MOP]); carnallite (potassium-magnesium carbonate); langbeinite (potassium-magnesium sulphate); potassium sulphate, and potassium nitrate. The dominant product is KCl.

Fertilizer use consumes over 90% of output. Potash promotes plant growth and enhances absorption of nitrogen and phosphate nutrients. Other uses are in chemicals, de-icing salt, water conditioners, detergents, ceramics and pharmaceuticals. Canada is the leading producer and exporter of potash.

## **CANADIAN INDUSTRY**

The Canadian potash industry began in the early 1960s with the opening of the first mines in Saskatchewan. By the mid-1980s, two new mines were opened in New Brunswick, one of which was closed because of flooding in 1997. In 2000, nine underground mines and two solution mines were operated by three companies employing over 3400 workers. Ten of the operations are in Saskatchewan and one underground mine is in New Brunswick.

Production increased 13.3% over the previous year to an estimated 9.4 Mt  $\rm K_2O^1$  (15.3 Mt KCl) and capacity utilization rose accordingly to 68% from 61%. Shipments in 2000 were up 10% to 9.1 Mt  $\rm K_2O$  worth \$1.7 billion (f.o.b. mines). Exports accounted for over 95% of shipments, making Canada the world's largest exporter with 43% of world trade in potash. Canada ships to some 40 countries but the United States purchased 58% of the total and, together with China

(13%) and Brazil (8%), these three major markets took almost 80% of Canadian export sales.

#### Saskatchewan

Saskatchewan produced about 95% of Canadian potash output in 2000. The province accounts for 33% of world production and capacity, and its operations rank as the world's most productive. Temporary shut-downs scheduled for inventory control were few during the year as producers reported record shipments.

Potash Corporation of Saskatchewan Inc. (PCS Inc.), based in Saskatoon, is the largest publicly held potash producer in the world, owning 22% of global capacity. PCS Inc. operates five mines in Saskatchewan: Cory Division (Saskatoon), Allan Division, Lanigan Division, Rocanville Division, and Patience Lake Division, a solution mine. The company also owns 25% of reserves at Esterhazy that are mined by IMC Esterhazy Canada Limited Partnership (formerly known as International Minerals & Chemical Corporation [Canada] Global Limited). In 1999, PCS Inc. acquired a potassium nitrate operation in Chile with a capacity of 360 000 t/y  $KNO_3$ . PCS Inc. set a new production record in 2000 of 7.15 Mt KCl, up 13.5% from that of 1999. Similarly, sales topped 6.9 Mt. A milling capacity of 13.4 Mt KCl supports the flexibility needed to meet surges in demand.

IMC Potash Colonsay Inc., IMC Esterhazy Canada Limited Partnership, and IMC Potash Belle Plaine, all divisions of IMC Global Inc., manage four mines in Saskatchewan: one at Viscount/Colonsay, the interconnected K1 and K2 mines at Esterhazy, and the large solution mine at Belle-Plaine. IMC Potash's capacity is estimated at 7 Mt/y KCl, 32% of the Canadian total, and production was an estimated 6.5 Mt KCl in 2000. The water inflow problem that began in 1985 at K1/K2 is being managed and production was not affected in 2000. An expansion of the Belle Plaine operations remains in the company's plans, although it will be extended beyond the original 2004 target date.

<sup>&</sup>lt;sup>1</sup> Unless noted otherwise, statistical data refer to potassium oxide (1 t KCl [product] = 0.6 t K<sub>2</sub>O).

Num Nunavut

8 C

Alia

Sask

Man

Que

USA

Underground potash mines

Solution mining operations

Figure 1
Location of Potash Mines and Operations in Canada, 2000

Numbers refer to locations on map above.

#### UNDERGROUND POTASH MINES

- 1. Agrium Inc., Vanscoy, Saskatchewan
- 2. Potash Corporation of Saskatchewan Inc., Cory Division, Saskatoon, Saskatchewan
- 4. Potash Corporation of Saskatchewan Inc., Allan Division, Allan, Saskatchewan
- IMC Potash Colonsay Inc., Colonsay, Saskatchewan (formerly known as IMC Central Canada Potash Inc.)
- 6. Potash Corporation of Saskatchewan Inc., Lanigan Division, Lanigan, Saskatchewan
- 8. IMC Esterhazy Canada Limited Partnership (K1 and K2 mines), Esterhazy, Saskatchewan (formerly known as International Minerals & Chemical Corporation [Canada] Global Limited)
- 9. Potash Corporation of Saskatchewan Inc., Rocanville Division, Rocanville, Saskatchewan
- PCS Cassidy Lake Limited, Clover Hill, New Brunswick (milling facilities only) (formerly known as Potash Corporation of Saskatchewan Inc., Cassidy Lake Division)
- 11. Potash Corporation of Saskatchewan Inc., New Brunswick Division, Sussex, New Brunswick

#### SOLUTION MINING OPERATIONS

- 3. Potash Corporation of Saskatchewan Inc., Patience Lake Division, Patience Lake, Saskatchewan
- 7. IMC Potash Belle Plaine, Belle-Plaine, Saskatchewan (formerly known as IMC Kalium Canada Ltd.)

Agrium Inc. operates a mine at Vanscoy with an estimated capacity of 1.8 Mt/y KCl. Production in 2000 was approximately 1.6 Mt.

Big Quill Resources Inc. manufactures potassium sulphate from purchased potash (KCl) and sodium sulphate produced by evaporation of natural brines from Big Quill Lake. A 40 000-t/y unit using the glaserite process was commissioned in 1999 to increase capacity and a further expansion to 300 000 t/y is planned for the future. Potassium sulphate is used as a fertilizer for crops that are sensitive to chloride. It also has chemical and other uses.

#### **New Brunswick**

PCS Inc.'s New Brunswick Division operated the province's only working potash mine about 5 km east of Sussex. A second mine, then owned by Potacan Mining Company, located 20 km southeast of Sussex, was closed by flooding in 1997. The Potacan mill, now PCS Cassidy Lake Limited (a division of PCS Inc.), is used to upgrade standard potash from Rocanville, Saskatchewan. Potash from Sussex is hauled 60 and 80 km to the Barrack Point potash terminal in Saint John.

#### Manitoba

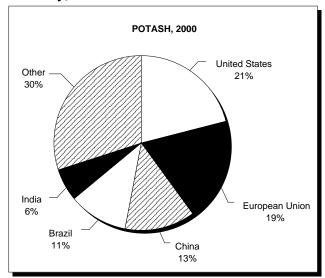
A joint venture between Entreprise minière et chimique of France and the Government of Manitoba, incorporated as the Manitoba Potash Corporation, holds the rights to a sylvinite deposit in the Russell-Binscarth area adjacent to the Saskatchewan border. No decision to go ahead has yet been taken. Proven reserves were estimated at 120 Mt grading 24.5%  $\rm K_2O.$ 

## **WORLD OVERVIEW**

Global potash production (all forms) rose 1.6% in 2000 to 27.7 Mt  $\rm K_2O$  and sales increased 2.5% to 27.1 Mt, despite a 2% decrease in world grain production. Most of the increase in potash sales is attributable to a strong upswing in Brazilian and U.S. demand. All regions but the C.I.S. recorded increased sales. Seventy-six percent of world output in 2000 was produced by four countries: Canada accounted for 35.5%; Russia, 14.5%; Belarus, 13%; and Germany, 13%. The remainder, in order of volume, was produced by Israel (6.8%), Jordan (4.5%), the United States, the United Kingdom, Spain, Brazil, Chile, France and China.

Capacity utilization, particularly in Canada, serves to balance supply and demand. During soft markets, the industry reduces output through planned periods of mine shut-downs and production can be raised quickly to meet increased demand. World producers

Figure 2
Percentage of Fertilizer Potash Used by Country, 2000



Source: Natural Resources Canada.

operated at an estimated 71% of capacity, up 1% from 1999. Canadian capacity utilization increased from 61% to 68%, whereas C.I.S. capacity declined 5% to 58%. The rest of the world together operated at an estimated 90% of capacity.

Total trade was up 3.3% to 20.4 Mt, largely due to a 22.4% increase in imports by Brazil, the world's third largest user, and a 7% increase by the United States. Foreign deliveries to socialist Asia were up 1.5% with increased sales to Vietnam offsetting a 1% decline for China. Non-socialist Asia registered a decline in imports of 1%, reflecting a 10% reduction in purchases by India where drought reduced fertilizer application during the Kharif (summer) season. Western Europe and the Middle East also registered decreased imports.

#### **Americas**

Production in Brazil from Companhia Vale do Rio Doce's potash mine in Sergipe State has increased almost 50% in the past five years to reach 567 000 t in 2000. A further capacity expansion to 840 000 t/y is scheduled for late 2001.

Chile's potash production increased 5.8% in 2000 following a 13% jump in 1999. SQM Salar S.A., a subsidiary of Sociedad Quimica y Minera de Chile S.A., produced potash products and other chemicals from alkaline brines at Salar de Atacama. Continuing its multi-year expansion plans, a new project with joint-venture partner Norsk Hydro added 160 000 t of

annual potassium nitrate capacity. The company also boosted KCl production by 5.8% to 550 000 t in 2000.

PCS Yumbes, formerly Minera Yolanda S.A., a nitrates producer also in the Salarde Atacama region, was purchased by PCS Inc. in 1999. That company imports potash from Canpotex Limited and purchases some from SQM for use in the conversion of sodium nitrates to potassium nitrate. Plant capacity is 265 000 t/y of  $\rm KNO_3$  plus other products, including iodine.

In the United States, potash production declined 9.5% because of an interruption in operations for the installation of new mining and processing equipment at both IMC Global Inc.'s and Mississippi Potash Inc.'s underground operations in Carlsbad, New Mexico. IMC Global Inc. had its first full year of operation of a new 325 000-t/y potassium-magnesium chloride plant at Carlsbad. The company also produces KCl and potassium sulphate at its Carlsbad facilities and operates a 145 000-t/y solution mine near Hershey, Michigan. The estimated output of all products combined from U.S. operations was about 2 Mt in 2000, half of which was KCl. Mississippi Potash's output from its Carlsbad mines was reported at 1.0 Mt (1.1 million short tons).

### **Commonwealth of Independent States**

Russia's two potash operations, Uralkali JSC at Berezniki and Sylvinit Ltd. at Solikamsk, together produced 6.2 Mt KCl (3.716 Mt  $\rm K_2O$  equivalent) in 2000, down 8.2% from 1999 and representing 58% capacity utilization. Domestic and export sales were both down. Canpotex, the Canadian offshore marketers of Canadian potash, signed a joint marketing agreement with Uralkali to handle this company's products in markets outside North America and Europe. Finalization of the agreement was announced on January 5, 2001.

Production in Belarus declined 6.7% in 2000 to 5.6 Mt KCl, and deliveries, both domestic and export, were down. PO Belaruskali, the producing company, has initiated a \$120 million-\$140 million annual investment program over 10 years to modernize and upgrade its production and shipping facilities. The European Union levied anti-dumping duties on potash from the C.I.S. in May and these remained in force into 2001.

#### Europe

Despite the planned phase-out of production from the two remaining operations in Alsace by 2002 (Marie-Louise Ouest) and 2004 (Amélie) and a seven-year consecutive decline in output to 1999, production in France increased 3.2% in 2000. In Germany, Kali und Salz GmbH (K&S) celebrated the 100th anniver-

sary of potash mining in the Werra-Ulster region. K&S produces the whole range of potash products and is the world's largest producer of potassium sulphate. An estimated Euro 90 million investment during 2000 is an extension of K&S's development plans over the past few years to rationalize production units and expand the production of potash and magnesium products. A fire at the Unterbreizbach mine may have contributed to a reduction in output of 3.8% to 3.4 Mt K<sub>2</sub>O in 2000, although sales were down only 1.6%. IBERPOTASH S.A., a joint-venture company owned by Dead Sea Works Ltd. (DSW) of Israel and Spanish interests, produced 522 000 t K<sub>2</sub>O in 2000 from mines at Llobregat and Suria in Catalonia, Spain. This was a decrease of 4.9% from 1999. In the United Kingdom, Cleveland Potash Ltd.'s output rose 21.4% in 2000 to 600 000 t, a recovery to former levels after the flooding of a conveyor haulage way in 1999.

#### Middle East

In Israel, DSW's production rose 2.7% in 2000 to 2.9 Mt KCl, continuing a series of increments over the past four years as a result of investment in expanded capacity, the debottlenecking of mill facilities, the removal of salt "mushrooms" from the carnallite evaporation ponds, and increased salinity of the Dead Sea due to extended drought conditions. Haifa Chemicals Ltd. operates a 200 000-t/y KNO<sub>3</sub> plant near Mishor Rotem.

In Jordan, the Arab Potash Co. Ltd. (APC) increased output in 2000 by 7.5% to 1.9 Mt KCl. APC is also in the process of removing salt "mushrooms" from its ponds which, when completed in late 2001, will increase carnallite capacity by over 50 000 t/y. The company is continuing with an aggressive expansion program aimed at increasing potash capacity to 2.5 Mt/y by 2005. Through joint ventures, APC participates in the production of several other potash products (nitrates, NPK products, etc.) that use their primary product.

#### Asia

China, the world's second largest market for potash after the United States, is itself a small producer. Output in 2000 increased 11.5% over the previous year to 480 000 t KCl. Spur Ventures Inc. of Vancouver, owner of Kunlun Potash Ltd., entered a joint venture with Golmud Potash Corporation to increase capacity at Golmud. Qinghai Yanhu Potash Fertilizer Co. Ltd. has secured a US\$57.2 million (475 million yuan) loan from the Industrial and Commercial Bank of China to finance a 300 000-t/y potash project in northwestern China's Qinhai Province. The resource is brine from Qarhan Salt Lake.

In northeastern Thailand, the ASEAN Potash Mining Company Ltd. (APMC) appears to be stalled by the

need for sufficient investment capital. The \$590 million underground project at Bamnet Narong, with a projected capacity of 1.1 Mt/y KCl, had been slated for engineering design and pilot tests to be completed before the end of 2000. A 933-m decline has been constructed and 100 000-t salt and 120 000-t carnallite ore samples have been extracted and stored. Potash production was originally scheduled to begin in 2004. A second company, Asia Pacific Potash Corporation (APPC), with minority shareholder Norsk Hydro Asia Pte. Ltd., is scheduled to begin construction in 2001 on their Somboon silvinite project in the Sakon Nakhon Basin in northern Thailand near the Laos border. The projected capacity is 2 Mt/y with completion in 2004. Domestic markets are expected to absorb 0.4 Mt and the balance will be sold in Southeast Asian markets. Norsk Hydro will market the entire output. APPC also owns the nearby Udon deposit.

## **PRICES**

Canpotex Limited, representing all Saskatchewan potash producers for offshore sales, sells f.o.b. Vancouver, c.i.f. foreign ports or out of stockpiles in Asia. Quoted prices were unchanged from 1999 at US\$110-\$129/t f.o.b. Vancouver for standard grade and US\$128-\$132/t for granular. One Canadian producer's price list for U.S. customers quoted US\$91/short ton (st) f.o.b. mines for standard grade and \$96 for granular for deliveries from June 1 to September 10, and US\$97 and \$102 respectively from September 11<sup>th</sup> forward. Midwest U.S. warehouse

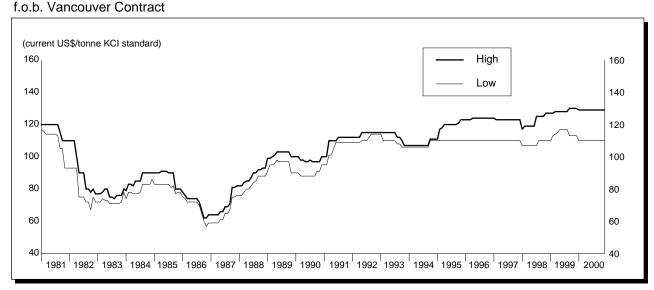
sales for the same producer varied from \$US118 to \$123/st for coarse grade from June to September and from US\$124 to \$129/st from September forward. The differences reflect freight increments. Average realized prices for Canadian potash were down 4% from 1999 because of competitive pressures and higher freight rates.

Price movements for C.I.S. potash through Baltic ports parallel those of Vancouver but at some \$20/t cheaper. Quotes for standard and granular for the year were steady at US\$91-\$106/t and US\$94-\$111 f.o.b. Baltic ports.

## **O**UTLOOK

Following record potash sales in 2000 and after a good 1999 sales year, customer inventories are high. Accordingly, fourth-quarter sales declined from the previous quarters and some major producers report further steep declines in the first quarter of 2001. PCS Inc. announced a 34% decline in sales volume in the January-March 2001 period and a shut-down of 15 more weeks' duration than in the first quarter of 2000. PCS Inc. has a six-week shut-down planned for the second quarter as well. IMC Potash reported an 18% drop in sales volume during the first quarter of 2001. Moreover, despite record sales in 2000, Canadian producer inventories had increased by 16.4% to 1.77 Mt by year-end, largely attributable to the fourth-quarter slowdown in sales.

Figure 3
Canada, Offshore Potash Price Quotations, 1981-2000



Source: Compiled by Natural Resources Canada from trade magazines and specialized subscriptions.

In addition to the effect of high customer potash inventories, the burgeoning costs for nitrogen fertilizers, which are manufactured using high-cost natural gas, and a four-year slide in grain prices limited farmers' ability to spend. Low prices for palm oil, a commodity that requires high potash applications, has resulted in a sharp reduction in sales to Malaysia and Indonesia, which together accounted for almost 2 Mt of KCl purchases in 2000. Poor weather conditions in North America have also delayed spring planting in 2001.

Most grain prices appeared to have bottomed out at long last by year-end 2000. As an indicator, U.S. corn prices are up 8% in November 2000 relative to a year earlier and wheat prices are up 2.3%. Nevertheless, they remain over 30% below 1996 prices. Higher grain prices are unlikely to stimulate demand for potash and other fertilizers in the near term at least because U.S. Department of Agriculture global wheat production forecasts for 2001 are down from the previous year and demand is being partially met through stock withdrawals. The production of coarse grains is forecast to be down in the United States but globally is projected to increase. Chinese rice stocks are estimated at 95 Mt, which is almost 25% of world production levels. A continuation of the recovery in grain prices bodes well for potash sales beyond 2001.

The industrial use of potash (non-fertilizer use) is expected to be down from 2000 levels as the world economy slowed in the last quarter of 2000 and remained soft in the first quarter of 2001. Non-fertilizer use amounts to about 10% of total potash

Natural Resources Canada estimates that world potash deliveries will decline 7% to 23.5 Mt ( $K_2O$  equivalent) in 2001 from the previous year. Rising grain prices and a rundown in customer stocks should give potash markets a boost for 2002. In the longer term, population growth, optimization of the soil nutrient balance in Asia (an ideal nitrogen-to-potash ratio of 1:0.30), and increasing protein levels in diets in the developing world should drive a potash demand growth that will average 2% per year. Most of this growth is expected to arise from agricultural upgrading and expansion in developing countries.

Notes: (1) For definitions and valuation of mineral production, shipments and trade, please refer to Chapter 65. (2) Information in this review was current as of April 30, 2001. (3) This and other reviews, including previous editions, are available on the Internet at http://www.nrcan.gc.ca/mms/cmy/index\_e.html.

#### NOTE TO READERS

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### **TARIFFS**

			Canada		United States
Item No.	Description	MFN	GPT	USA	Canada
3104.20	Potassium chloride	Free	Free	Free	Free
3104.30	Potassium sulphate	Free	Free	Free	Free
3104.90.00.10	Magnesium-potassium sulphate	Free	Free	Free	Free
3104.90.00.90	Other	Free	Free	Free	Free

Sources: Customs Tariff, effective January 2001, Canada Customs and Revenue Agency; Harmonized Tariff Schedule of the United States, 2001.

TABLE 1. CANADIAN POTASH PRODUCED, SHIPPED AND TRADED, 1999 AND 2000

Item No.		19	99	2000 <b>p</b>		
		(tonnes)	(\$000)	(tonnes)	(\$000)	
RODUCTION	I, Potassium Chloride					
Gross weigh		13 564 212		15 290 300		
K <sub>2</sub> O equivale	lent	8 304 421		9 408 953		
SHIPMENTS						
K <sub>2</sub> O equivale	lent	8 475 270	1 634 041	9 106 817	1 714 453	
MPORTS, Ferti	tilizer Potash1					
3104.20	Potassium chloride					
	United States	3 791	527	5 882	875	
	France Czech Republic	333	48	474 98	63 13	
	Germany	35	4	57	9	
	United Kingdom	9	2	36	4	
	Norway Switzerland	1 3		10 1	2	
	Spain	17	1	-		
	Canada	67	8	_	_	
	Tetal	4.056	500	0.550	000	
	Total	4 256	590	6 558	966	
3104.30	Potassium sulphate					
	United States	374	219	310	136	
	Belgium Finland	209	121	169 53	86 41	
	Japan	5	6	6	7	
	United Kingdom	4	5	1	1	
	Germany	1	1	1	1	
	Total	593	352	540	272	
3104.90.00.10	Magnesium-potassium sulphate					
	United States	64 135	11 146	52 071	8 980	
	Canada	_	_	16	3	
	Total	64 135	11 146	52 087	8 983	
3104.90.00.90	Other potassic fertilizer					
	United States	9 683	3 394	45 445	9 158	
	Norway	80	45	800	445	
	Chile Israel	112 767	68 290	98 87	61 54	
	New Zealand	43	29	40	27	
	United Kingdom	192	81	51	27	
	Netherlands	9	6	6	2	
	Italy Mexico	_ 19	_ 15	1		
	WEXICO	10	10			
	Total	10 905	3 928	46 528	9 774	
Pot	tash Chemicals					
2815.20	Potassium hydroxide (caustic potash)	19 554	11 487	16 825	9 990	
2834.21 2835.24	Potassium nitrate Potassium phosphates	9 049 1 846	5 203 2 148	8 682 2 103	4 758 2 480	
2836.40	Potassium carbonates	2 718	1 801	3 626	2 387	
2839.20	Potassium silicates	886	533	1 123	521	
	Total potash chemicals	34 053	21 172	32 359	20 136	
EXPORTS, Fer	rtilizer Potash <sup>1</sup>					
3104.20	Potassium chloride					
	United States	8 459 616	1 123 359	8 779 766	1 117 055	
	China	1 747 555 870 390	296 200 129 114	1 943 241 1 188 671	413 891 212 460	
	Brazil	010 390				
	Brazil Japan		84 228	492 357	105 949	
	Japan Malaysia	442 789 442 456	84 228 74 672	492 357 465 302	105 949 99 732	
	Japan Malaysia South Korea	442 789 442 456 416 165	74 672 70 307	465 302 419 555	99 732 90 514	
	Japan Malaysia South Korea India	442 789 442 456 416 165 240 459	74 672 70 307 41 029	465 302 419 555 244 000	99 732 90 514 52 633	
	Japan Malaysia South Korea India Australia	442 789 442 456 416 165 240 459 273 958	74 672 70 307 41 029 46 656	465 302 419 555 244 000 191 262	99 732 90 514 52 633 41 028	
	Japan Malaysia South Korea India	442 789 442 456 416 165 240 459	74 672 70 307 41 029	465 302 419 555 244 000		
	Japan Malaysia South Korea India Australia Indonesia	442 789 442 456 416 165 240 459 273 958 166 552	74 672 70 307 41 029 46 656 28 279	465 302 419 555 244 000 191 262 176 388	99 732 90 514 52 633 41 028 37 522	

TABLE 1 (cont'd)

Item No.		19	1999		2000 <b>p</b>		
		(tonnes)	(\$000)	(tonnes)	(\$000)		
EXPORTS (	cont'd)						
(	Vietnam	71 772	12 013	100 820	21 550		
	Belgium	117 610	18 807	90 312	19 420		
	Spain	81 433	11 155	83 637	14 853		
	Chile	54 392	9 071	62 044	13 329		
	Colombia	21 383	3 652	61 495	13 235		
	Italy	78 659	13 429	61 031	13 231		
	Costa Rica	37 390	6 248	52 031	10 048		
	Philippines	59 345	9 939	43 195	9 331		
	Guatemala	59 677	10 029	47 387	8 500		
	Singapore	15 101	2 572	23 053	5 013		
	Cuba	70 500	8 638	36 000	4 377		
	Mexico	11 570	1 965	20 100	3 275		
	Salvador	_	_	13 200	2 794		
	South Africa	10 298	1 750	10 000	2 143		
	Honduras	_	_	16 450	2 117		
	Ecuador	_	_	8 000	1 754		
	Venezuela	_	_	7 700	1 722		
	Dominican Republic	12 041	1 637	12 200	1 601		
	Fiji .	4 932	838	5 000	1 065		
	Argentina	4 409	757	2 974	639		
	Pakistan	108	70	36	8		
	France	44 864	5 449	18	4		
	United Kingdom	108	35	18	4		
	Denmark	32 263	3 935	_	_		
	Portugal	6 550	792	_	_		
	Ivory Coast	9 900	1 339	_	-		
	Total	14 322 979	2 095 452	15 109 517	2 417 974		
3104.30	Potassium sulphate						
	United States	21 760	9 297	17 859	7 409		
	Romania	21	12	<del>-</del>	_		
	Total	21 781	9 309	17 859	7 409		

Sources: Natural Resources Canada; Statistics Canada.

– Nil; . . Not available or not applicable; . . . Amount too small to be expressed; P Preliminary.

1 Countries are ranked in descending order of value for 2000.

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

TABLE 2. CANADIAN POTASH, CURRENT SITUATION, 1991-2000, AND FORECAST, 2001

	Actual						Forecast1				
	1991	1992	1993	1994	1995	1996	1997	1998	1999r	2000 <b>p</b>	2001e
	(000 tonnes K <sub>2</sub> O)									<del></del>	
Capacity	12 045	12 180	12 180	12 235	13 220	13 310	13 390	13 400	13 405	13 460	13 460
Production	7 402	7 270	6 850	8 182	9 065	8 042	9 030	9 190	8 230	9 409	8 230
Capacity utilization (%)	61	60	56	67	69	60	67	69	61	68	61
Sales	7 056	7 025	6 863	8 517	8 635	7 970	9 510	8 265	8 290	9 106	8 290
of which: Domestic United States Offshore	350 3 610 3 096	370 3 945 2 710	356 4 048 2 459	385 4 560 3 535	345 4 495 3 795	355 4 335 3 280	490 5 295 3 725	450 4 325 3 490	425 4 245 3 620	455 4 570 4 080	425 4 250 3 615
Year-end stocks	1 585	1 785	1 726	1 285	1 545	1 420	935	1 520	1 380	1 767	1 700
World production World capacity <sup>2</sup> ,r	26 035 37 068	24 036 36 594	20 407 35 512	22 687 35 624	24 302 36 299	23 331 36 529	25 467 36 836	25 870 36 490	25 775 36 663	25 814 36 840	25 000 36 840
World sales (IFA)	24 175	23 175	20 835	23 620	23 375	22 490	25 745	24 260	24 630	25 260	24 500
Canada/world Production ratio (%) Capacity ratio (%)	28.4 32.5	30.2 33.3	33.6 34.3	36.1 34.3	37.3 36.4	34.5 36.4	35.5 36.4	35.5 36.7	31.9 36.6	35.5 36.5	33.0 36.5

TABLE 3. WORLD POTASH PRODUCTION, 1994-2000

	1994	1995	1996	1997	1998	1999r	2000e		
	(000 tonnes K <sub>2</sub> O)								
Brazil	242	223	234	280	327	337	340		
Canada	8 182	9 065	8 044	9 029	9 195	8 230	9 174		
Chile	52	52	179	235	280	312	330		
China	90	171	150	186	168	260	290		
C.I.S.1	5 112	5 605	5 395	6 650	6 912	7 665	7 098		
France	870	802	751	665	417	311	321		
Germany	3 286	3 278	3 334	3 423	3 582	3 545	3 409		
Israel	1 259	1 326	1 500	1 488	1 668	1 702	1 748		
Jordan	930	1 068	1 059	849	916	1 080	1 162		
Spain	684	650	680	640	497	549	522		
United Kingdom	580	582	618	565	608	495	601		
United States	1 400	1 480	1 387	1 465	1 300	1 400e	1 350e		
Total	22 687	24 302	23 331	25 475	25 870	25 886	26 345		

Sources: Natural Resources Canada; International Fertilizer Association; company interviews.

Sources: Natural Resources Canada; Potash and Phosphate Institute.

e Estimated; p Preliminary; r Revised.

1 Forecast by Natural Resources Canada. 2 Estimated by Natural Resources Canada.

e Estimated; r Revised.

Russia and Belarus.