

Mineral Industry Surveys

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POTASH IN CROP YEAR 2003

U.S. potash production and sales were about 1.2 million metric tons (Mt), K_2O equivalent,¹ in crop year 2003, according to the U.S. Geological Survey (USGS). Exports decreased by about 19% to 336,000 metric tons and imports were essentially unchanged from the previous crop year at about 4.6 Mt. Apparent consumption increased by about 6% to about 5.5 Mt.

The USGS developed domestic potash data from voluntary semiannual canvasses of U.S. operations. Of the seven survey requests sent to operations for the first half of the crop year (July through December 2002) and the second half of the crop year (January through June 2003), six responded, and one was estimated. For both reporting periods, the respondents were estimated to represent more than 95% of the total. Data were estimated for the nonreporting firm for both reporting periods.

About 62% of this crop year's exports went to Latin America, 26% to Asia and Oceania, and the rest to Europe, Africa, and other areas. Exports to Latin America decreased to about 76% of last year's total, and exports to Asia and Oceania declined by

 $^1\!\mathrm{All}$ tonnages are reported in metric tons, $\mathrm{K}_2\mathrm{O}$ equivalent, unless otherwise noted.

about 6%. Muriate of potash (MOP) exports were about 52% of the total exports; sulfate of potash magnesia (SOPM), about 24%; sulfate of potash (SOP), about 23%; and potassium nitrate, about 1% of total exports. Compared with last year, exports of MOP fell by about 21%, SOPM fell by about 4%, and SOP fell by about 16%.

Imports were essentially unchanged for the report period compared with crop year 2002. About 90% of all imports came from Canada, which is a major source of MOP and a minor source of SOP. Prices for standard MOP rose, and granular MOP prices moved up slightly (table 3).

At the end of crop year 2003, only five potash producers were operational in the United States. Mississippi Chemical Corp's. Mississippi Potash operated two mines in New Mexico. IMC Global operated a mine in New Mexico and a deep-solution mine in Michigan. In Utah, Compass Minerals Group, Inc. operated the Great Salt Lake Minerals SOP production site west of Ogden; Intrepid Mining, LLC operated the Moab Salt LLC. deep-solution mine near Moab; and Reilly Industries operated a near-surface brine production site near Wendover.

TABLE 1 SALIENT POTASH STATISTICS^{1, 2}

(Thousand metric tons and thousand dollars, unless otherwise specified)

		Year ending	June 30
		2002	2003
United States:			
Production:			
Gross weight		2,500	2,500
K ₂ O equivalent		1,200	1,200
Sales by producers:			
Gross weight		2,600	2,500
K ₂ O equivalent		1,200	1,200
Value ³		\$270,000	\$270,000
Average value:			
Gross weight	dollars per metric ton	\$110	\$110
K ₂ O equivalent	do.	\$220	\$230
Exports: ⁴			
Gross weight		960	820
K ₂ O equivalent		410	340
Imports for consumption: ^{4, 5}			
Gross weight		7,400	7,600
K ₂ O equivalent		4,500	4,600
Customs value		\$550,000	\$650,000
Consumption, apparent: ⁶			
Gross weight ⁷		9,000	9,100
K_2O equivalent ⁷		5,200	5,500

¹Includes muriate and sulfate of potash, potassium magnesium sulfate, and parent salts. Excludes other chemical compounds and mixtures that contain potassium.

²Data are rounded to no more than two significant digits to avoid disclosing proprietary data.

³Free on board (f.o.b.) mine.

⁴Excludes potassium chemicals and mixed fertilizers.

⁵Includes nitrate of potash and mixed sodium-potassium nitrate.

⁶Measured by sales plus imports minus exports.

⁷Data are rounded to within 200,000 tons to avoid disclosing proprietary data.

TABLE 2

PRODUCTION OF CRUDE ORE IN NEW MEXICO

(Thousand metric tons)

	Crude salts ¹ (mine production)					
	Gross	K ₂ O				
Period	weight	equivalent				
Crop year 2002:						
July - December 2001 ²	5,000	700				
January - June 2002 ²	6,000	600				
Total	11,000	1,300				
Crop year 2003:	-					
July - December 2002 ²	6,000	700				
January - June 2003 ²	6,000	700				
Total	12,000	1,400				

¹Sylvinite and langbeinite.

²Data are rounded to no more than one significant digit to avoid disclosing proprietary data.

TABLE 3 PRICES OF U.S. POTASH, BY TYPE AND GRADE^{1, 2}

(Dollars per metric ton of K2O equivalent)

	20	01	20	2003		
	January -	July -	January -	July -	January -	
Type and grade	June	December	June	December	June	
Muriate, 60% K ₂ O minimum:						
Standard	165	165	155	150	165	
Granular	160	150	150	155	155	

¹Average prices, f.o.b. mine, based on sales.

²Data are rounded to the nearest \$5 to avoid disclosing proprietary data.

TABLE 4 SALES OF NORTH AMERICAN POTASH TO U.S. CUSTOMERS, BY GRADE $^{\rm 1}$

(Thousand metric tons of K2O equivalent)

	20	001	20	02	2003	July 2001	July 2002 to June 2003	
	January -	July -	January -	July -	January -	to		
Grade	June	December	June	December	June	June 2002		
Agricultural:								
Muriate of potash:								
Standard	113	61	94	66	79	155	145	
Coarse	1,020	1,060	1,030	1,110	1,080	2,090	2,190	
Granular	917	697	976	654	899	1,670	1,550	
Soluble	231	175	211	185	238	386	423	
Total	2,280	1,990	2,320	2,020	2,290	4,310	4,310	
Nonagricultural:								
Standard muriate	305	300	255	286	273	555	559	
Soluble muriate	74	67	74	84	74	141	158	
Total	379	367	328 ^r	370	347	696	717	

^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: Potash & Phosphate Institute.

TABLE 5U.S. EXPORTS OF POTASH1

(Metric tons, unless otherwise specified)

	Approximate						
	average						
	K_2O	July - Dec	cember 2002	January -	- June 2003	Year ending	June 30, 2003
	content	content K ₂ O			K ₂ O		K ₂ O
Туре	(percent)	Product	equivalent ^e	Product	equivalent ^e	Product	equivalent ^e
Potassium chloride, all grades	61	99,200	60,500	185,000	113,000	284,000	173,000
Potassium nitrate	45	1,310	590	1,560	704	2,870	1,290
Potassium sulfate	51	69,000	35,200	84,700	43,200	154,000	78,400
Potassium magnesium sulfate ²	22	178,000	39,100	198,000	43,500	376,000	82,600
Total	XX	347,000	135,000	469,000	200,000	816,000	336,000

^eEstimated. XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Contains exports listed under Harmonized Code Category 3104.10.0000.

Source: U.S. Census Bureau.

TABLE 6 U.S. IMPORTS FOR CONSUMPTION OF POTASH¹

	Approximate average					January - June 2003	3	Year ending June 30, 2003		
	K ₂ O			Customs			Customs			Customs
	content		K ₂ O	value		K ₂ O	value		K ₂ O	value
Туре	(percent)	Product	equivalent ^e	(thousands)	Product	equivalent ^e	(thousands)	Product	equivalent ^e	(thousands)
Potassium chloride ^{2, 3}	61	3,460,000	2,110,000	\$272,000	3,840,000	2,340,000	\$317,000	7,300,000	4,450,000	\$589,000
Potassium sulfate	51	46,800	23,900	8,690	67,500	34,400	11,900	114,000	58,300	20,600
Potassium nitrate	45	60,000	27,000	16,400	44,200	19,900	12,200	104,000	46,900	28,600
Potassium nitrate mixtures	14	10,300	1,450	2,970	34,400	4,810	8,820	44,700	6,260	11,800
Total	XX	3,580,000	2,160,000	300,000	3,980,000	2,400,000	350,000	7,560,000	4,560,000	650,000

(Metric tons, unless otherwise specified)

^eEstimated. XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Purchases of muriate by U.S. companies were subtracted from imports to prevent double counting due to conversion to sulfate of potash.

³Contains imports listed under Harmonized Code Category 3104.10.0000.

Source: U.S. Census Bureau, as adjusted by the U.S. Geological Survey.

TABLE 7 U.S. IMPORTS FOR CONSUMPTION OF POTASH, BY COUNTRY $^{\rm 1,\,2}$

(Metric tons, unless otherwise specified)

												Total	value	
					Potassium							(thous	ands)	
	Potassium	chloride	Potassiun	n sulfate	Potassiu	m nitrate	sodium nitrate		Total		Customs		C.i	i.f. ³
Country	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003
Belarus	187,000	340,000							187,000	340,000	\$15,200	\$27,800	\$16,900	\$31,000
Belgium			10,200	10,300	7	13			10,200	10,300	1,640	1,270	1,720	1,690
Canada	6,740,000	6,710,000	16,500	24,000	19	20	188	810	6,760,000	6,740,000	477,000	547,000	501,000	570,000
Chile	150		10,100	9,240	46,800	77,500	5,820	30,600	62,900	117,000	15,400	26,300	17,400	29,400
Denmark				25	4,940	7,200			4,940	7,220	1,770	2,160	2,350	2,980
Germany	5,600	860	85,600	70,300	1,720	1,660	12	13,200	92,900	86,000	16,000	12,800	18,100	14,100
Israel	71,300	628			5,260	16,400			76,600	17,000	7,990	12,100	9,240	14,100
Japan			346	182	906	853			1,250	1,040	666	475	747	522
Lithuania	9,710								9,710		811		939	
Poland					74	104			74	104	38	41	45	50
Russia	211,000	247,000							211,000	247,000	17,200	19,600	19,000	22,800
United Kingdom	43	91			2				45	91	55	109	64	120
Other ⁴	47	262	147	364	339	528	6	17	539	1,170	250	456	279	519
Total	7,220,000	7,300,000	123,000	114,000	60,100	104,000	6,020	44,700	7,410,000	7,560,000	554,000	650,000	588,000	687,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Crop year 2002 contains data from July 1, 2001, to June 30, 2002, and crop year 2003 contains data from July 1, 2002, to June 30, 2003.

³Cost, insurance, and freight.

⁴Potassium chloride includes China, Slovakia (2002); potassium sulfate includes France, India (2003), Mexico, Sweden (2003); potassium nitrate includes China, France (2003), Hong Kong (2002), India, Mexico, the Netherlands; potassium sodium nitrate includes the Netherlands.

Source: U.S. Census Bureau, as adjusted by the U.S. Geological Survey.