
U.S. Department of the Interior • U.S. Geological Survey

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POTASH IN CROP YEAR 1997

United States potash production decreased by about 3% to 1.4 million tons, K₂O equivalent,¹ in crop year 1997, according to the U.S. Geological Survey. Sales rose by about 2% to more than 1.4 million. Production was evenly divided between the last half of 1996 and the first half of 1997 while first half 1997 sales were 55% of crop year 1997. Ending stocks for crop year 1997 were down 20% to 195,000 tons and represented more than 7 weeks of average annual production.

The average 1997 crop year selling price, f.o.b. mine, for all types and grades of potash, rose about 9% from 1996 to above \$219 per ton, K₂O equivalent. The average price for the three potassium chloride (muriate of potash, or MOP) grades, standard, coarse, and granular, averaged about \$139 per ton for the 1997 crop year, an increase of less than 5% from the 1996 crop year.

Imports, according to the U.S. Bureau of the Census, decreased by 3%, to 4.9 million tons. Exports rose by about 67,000 tons or about 16%. Domestic apparent consumption for the crop year decreased less than 5.9 million tons.

According to the Potash & Phosphate Institute, U.S. producer sales, both agricultural and nonagricultural, to domestic markets increased to about 922,000 tons from about 905,000 tons for crop year 1996. Canadian producer sales, both agricultural and nonagricultural, to U.S. domestic markets increased about 8% to more than 4.7 million tons.

U.S. Bureau of the Census export data for all types of potash, comparing crop year 1997 to crop year 1996, increased by greater than 20% to about 475,000 tons. Muriate of potash exports increased by about 14%, whereas sulfate of potash exports climbed by about 8% to about 190,000 tons. Sulfate of potash magnesia exports increased by about 4%. Muriate of potash was about 50% of potash exports; sulfate of potash was about 30% of exports. Sulfate of potash magnesia (SPM) exports was 19% of exports; the remainder being potassium

nitrate exports. Exports of the three grades of muriate of potash, both agricultural and industrial, to Latin America was 87% of all MOP exports and 49% of all exports. Sulfate of potash export quantities to countries in and around the Pacific Basin were the second largest product to its largest market at about 18% of all potash exports. Sulfate of potash to the Pacific Basin was 66% of shipments to that region and 53% of sulfate of potash exports. Exports of sulfate of potash to Latin America was 12% of total exports. Potash exports, in descending order of percentages, were MOP to Latin America (49%), SOP to the Pacific Basin (18%), SOP to Latin America (12%), SPM to Latin America (9%), and SPM to the Pacific Basin (8%). These product-destination pairs were 96% of all types and grades of potash exports for both agricultural and industrial end uses.

During the 1996-97 crop year the St. Paul, MN, civil, class action, antitrust lawsuit approached the end after four and one-half years. In September, 1996, the magistrate had recommended dismissal by summary judgement for lack of evidence. In January the Federal District Court Judge agreed with the recommendation and dismissed the suit. The plaintiffs appealed to the 8th Circuit Court of Appeals in St. Paul, MN (Green Markets, 1997a).

During the December 1996 crop year, Potash Corporation of Saskatchewan (PCS) commenced a partial purchase (51%) of the Kali und Salz Beteiligungs AG (K&S AG) of Hanover, Germany, from the Guano-Werke GmbH of BASF AG of Ludwigshafen, Germany. In February, the German Federal Cartel Office issued an order prohibiting the PCS partial purchase (Green Markets, 1997b). There was an appeal to the German Ministry of Economics. The German Monopolies Commission, an advisory panel, recommended Governmental nonapproval of the purchase in early June (Green Markets, 1997d).

Mississippi Potash Div. of Mississippi Chemical Corp.

¹All tonnages reported in text are in metric tons K₂O equivalent unless otherwise stated.

renamed its three recently purchased potash sites in the Carlsbad area (Green Markets, 1997c). The former New Mexico Potash mine was renamed Mississippi Potash East, while the original potash mine in the Carlsbad area (the former United States Potash Mine and later the Mississippi Potash Mine was renamed Mississippi Potash West. Mississippi Potash North is the compaction plant of the former Amax Potash operations. Eddy Potash, the second oldest potash plant in the Carlsbad area (originally known as Potash Corporation of America), was renamed the Eddy Potash Division of Mississippi Potash.

The Potash Company of Canada (Potacan) mine at Clover Hill, New Brunswick, Canada, a 800,000 metric ton muriate of potash mine was discovered to be subject to water inflow problem on June 18th (Green Markets, 1997e). The flow was initially estimated to be 4,000 to 5,000 cubic meters per day.

This mine was jointly owned by a division of Kali und Salz Beteiligungs AG (K&S AG) called Kali und Salz GmbH of Kassel, Germany, and Entreprise Minière et Chimique (EMC) of Paris, France.

References Cited

- Green Markets, 1997a, Plaintiffs appeal dismissal of potash class action suit: Green Markets, v. 21, no. 6, February 10, p. 1.
- 1997b, German cartel office nixes PCS buy of Kali und Salz: Green Markets, v. 21, no. 9, March 3, p. 1.
- 1997c, Potash: Green Markets, v. 21, no. 22, p. 9.
- 1997d, PCS/BASF lose another round in merger fight: Green Markets, v. 21, no. 24, June 16, p. 1ff.
- 1997e, POTACAN experiences water inflow problem: Green Markets, v. 21, no. 25, June 23, p. 1ff.

TABLE 1
SALIENT POTASH 1/ STATISTICS 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

| | Year ending June 30 | |
|---|---------------------|-----------|
| | 1996 | 1997 |
| United States: | | |
| Production (Gross weight) | 2,990 | 2,930 |
| K2O equivalent | 1,450 | 1,400 |
| Sales by producers (Gross weight) | 2,940 | 3,040 |
| K2O equivalent | 1,420 | 1,450 |
| Value 3/ | dollars | |
| Average value per ton of product | \$286,000 | \$317,000 |
| Average value per ton of K2O equivalent | \$97.59 | \$104.53 |
| Exports 4/ | 993 | 1,150 |
| K2O equivalent | 428 | 501 |
| Imports for consumption 4/ 5/ | 8,400 | 8,200 |
| K2O equivalent | 5,150 | 4,980 |
| Customs value | \$623,000 | \$534,000 |
| Consumption, apparent 6/ (Gross weight) | 10,400 | 10,200 |
| K2O equivalent | 6,140 | 5,980 |
| Producers' stocks: | | |
| Product (Gross weight) | 530 | 426 |
| K2O equivalent | 243 | 196 |

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

2/ Data are rounded to three significant digits; except prices.

3/ F.o.b. mine.

4/ Excludes potassium chemicals and mixed fertilizers.

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

6/ Measured by sales plus imports minus exports.

TABLE 2
 PRODUCTION, SALES, AND INVENTORY OF U.S. PRODUCED POTASH, BY TYPE AND GRADE 1/

(Thousand metric tons and thousand dollars)

| Type and grade | Production | | | | Sold or used | | | | | Stocks, end of 6-month period | | | | |
|-------------------------------------|--------------|-------|----------------|-------|--------------|-------|----------------|-------|-------------|-------------------------------|--------------|------|----------------|------|
| | Gross weight | | K2O equivalent | | Gross weight | | K2O equivalent | | Value e/ 2/ | | Gross weight | | K2O equivalent | |
| | 1995 | 1996 | 1995 | 1996 | 1995 | 1996 | 1995 | 1996 | 1995 | 1996 | 1995 | 1996 | 1995 | 1996 |
| July - December: | | | | | | | | | | | | | | |
| Muriate of potash, 60% K2O minimum: | | | | | | | | | | | | | | |
| Standard | 273 | 238 | 167 | 146 | 267 | 184 | 163 | 113 | 22,200 | 15,400 | 68 | 104 | 41 | 63 |
| Coarse | 43 | (4/) | 26 | (4/) | 26 | 26 | 16 | 16 | W | W | 26 | 2 | 16 | 1 |
| Granular | 457 | 443 | 278 | 269 | 412 | 407 | 251 | 248 | 33,400 | 33,600 | 167 | 120 | 102 | 73 |
| Chemical | 4 | 6 | 3 | 4 | 6 | 5 | 4 | 3 | W | W | 1 | 3 | 1 | 2 |
| Other potassium salts 3/ | 734 | 725 | 260 | 254 | 599 | 712 | 205 | 270 | 68,400 | 87,900 | 423 | 380 | 152 | 126 |
| Total | 1,510 | 1,410 | 734 | 673 | 1,310 | 1,330 | 639 | 650 | 127,000 | 140,000 | 685 | 609 | 312 | 265 |
| January - June: | | | | | | | | | | | | | | |
| Muriate of potash, 60% K2O minimum: | | | | | | | | | | | | | | |
| Standard | 239 | 265 | 147 | 161 | 255 | 255 | 156 | 156 | 20,600 | 21,400 | 50 | 114 | 31 | 70 |
| Coarse | 17 | -- | 10 | -- | 16 | 1 | 10 | 1 | W | W | 27 | -- | 17 | -- |
| Granular | 464 | 462 | 283 | 281 | 547 | 534 | 333 | 325 | 43,700 | 47,000 | 84 | 49 | 52 | 30 |
| Chemical | 7 | 3 | 4 | 2 | 6 | 5 | 4 | 3 | W | W | 2 | 1 | 1 | 1 |
| Other potassium salts 3/ | 748 | 787 | 271 | 283 | 801 | 907 | 281 | 313 | 93,200 | 109,000 | 367 | 262 | 142 | 95 |
| Total | 1,480 | 1,520 | 715 | 727 | 1,630 | 1,700 | 784 | 798 | 159,000 | 178,000 | 530 | 426 | 243 | 196 |
| Grand total | 2,990 | 2,930 | 1,450 | 1,400 | 2,940 | 3,040 | 1,420 | 1,450 | 286,000 | 317,000 | XX | XX | XX | XX |

e/ Estimated. W Withheld to avoid disclosing company proprietary data; included in "Total." XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ F.o.b. mine.

3/ Includes manure salts, soluble muriate, and potassium magnesium sulfate.

4/ Less than 1/2 unit.

TABLE 3
PRODUCTION AND SALES OF POTASH IN NEW MEXICO 1/

(Thousand metric tons and thousand dollars)

| Period | Crude salts 2/ (mine production) | | Marketable potassium salts | | | | |
|----------------------|-------------------------------------|----------------|----------------------------|----------------|--------------|----------------|----------|
| | Gross weight | K2O equivalent | Production | | Sold or used | | Value 3/ |
| | | | Gross weight | K2O equivalent | Gross weight | K2O equivalent | |
| Crop year 1996: | | | | | | | |
| July - December 1995 | 6,710 | 840 | 1,240 | 582 | 1,060 | 502 | 95,300 |
| January - June 1996 | 6,790 | 835 | 1,210 | 572 | 1,380 | 648 | 124,000 |
| Total | 13,500 | 1,680 | 2,450 | 1,150 | 2,440 | 1,150 | 219,000 |
| Crop year 1997: | | | | | | | |
| July - December 1996 | 6,320 | 756 | 1,200 | 558 | 1,060 | 503 | 101,000 |
| January - June 1997 | 6,730 | 807 | 1,220 | 568 | 1,400 | 636 | 134,000 |
| Total | 13,000 | 1,560 | 2,420 | 1,130 | 2,460 | 1,140 | 235,000 |

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Sylvinite and langbeinite.

3/ F.o.b. mine.

TABLE 4
PRICES 1/ OF U.S. POTASH, BY TYPE AND GRADE

(Dollars per metric ton of K2O equivalent)

| Type and grade | 1995 | | 1996 | | 1997 |
|---------------------------|-------------------|--------------------|-------------------|--------------------|-------------------|
| | January - June | July - December | January - June | July - December | January - June |
| Muriate, 60% K2O minimum: | | | | | |
| Standard | 139.49 | 136.50 | 131.82 | 136.31 | 137.01 |
| Coarse | 120.02 | W | W | W | W |
| Granular | 142.68 | 133.24 | 131.12 | 135.40 | 144.62 |
| All muriate 2/ | 140.04 | 134.67 | 131.25 | 135.37 | 142.15 |

W Withheld to avoid disclosing company proprietary data.

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

2/Excluding soluble and chemical muriates.

TABLE 5
SALES OF NORTH AMERICAN POTASH TO U.S. CUSTOMERS, BY GRADE 1/

(Thousand metric tons of K2O equivalent)

| Grade | 1995 | | 1996 | | 1997 | July 1995 to June 1996 | July 1996 to June 1997 |
|-----------------------|-------------------|--------------------|-------------------|--------------------|-------------------|------------------------------|------------------------------|
| | January - June | July - December | January - June | July - December | January - June | | |
| Agricultural: | | | | | | | |
| Muriate of potash: | | | | | | | |
| Standard | 132 | 93 | 170 | 130 | 176 | 247 | 306 |
| Coarse | 1,180 | 1,120 | 1,130 | 1,010 | 1,320 | 2,140 | 2,340 |
| Granular | 954 | 725 | 1,080 | 802 | 1,290 | 1,700 | 2,090 |
| Soluble | 266 | 178 | 318 | 216 | 327 | 466 | 542 |
| Sulfates of potash 2/ | 137 | 88 | 130 | 98 | 146 | 206 | 245 |
| Total | 2,670 | 2,200 | 2,820 | 2,260 | 3,260 | 4,760 | 5,520 |
| Nonagricultural: | | | | | | | |
| Standard Muriate | 223 | 230 | 252 | 327 | 314 | 459 | 641 |
| Soluble Muriate | 52 | 48 | 46 | 37 | 32 | 89 | 69 |
| Sulfates of potash 2/ | 2 | 2 | 3 | 10 | 10 | 5 | 20 |
| Total | 277 | 280 | 301 | 374 | 356 | 553 | 730 |

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes potassium sulfate and potassium magnesium sulfate.

Source: Potash & Phosphate Institute.

TABLE 6
U.S. EXPORTS OF POTASH 1/

(Metric tons unless otherwise specified)

| | Approximate average K2O content (percent) | July - December 1996 | | January - June 1997 | | Year ending June 30, 1997 | |
|--------------------------------|---|----------------------|----------------------|---------------------|----------------------|---------------------------|----------------------|
| | | Product | K2O equivalent e/ | Product | K2O equivalent e/ | Product | K2O equivalent e/ |
| | | | | | | | |
| Potassium chloride, all grades | 61 | 176,000 | 108,000 | 165,000 | 101,000 | 342,000 | 208,000 |
| Potassium nitrate | 45 | 5,430 | 2,440 | 8,910 | 4,010 | 14,300 | 6,450 |
| Potassium sulfate | 51 | 192,000 | 97,800 | 189,000 | 96,600 | 381,000 | 194,000 |
| Potassium magnesium sulfate 2/ | 22 | 187,000 | 41,100 | 230,000 | 50,500 | 416,000 | 91,600 |
| Total | XX | 560,000 | 249,000 | 593,000 | 252,000 | 1,150,000 | 501,000 |

e/ Estimated. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Contains exports listed under Harmonized Code Category 3104.10.0000.

Source: Bureau of the Census.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF POTASH 1/

(Metric tons unless otherwise specified)

| | Approximate average K2O content (percent) | July - December 1996 | | | January - June 1997 | | | Year ending June 30, 1997 | | |
|----------------------------|---|----------------------|----------------------|---------------------------------|---------------------|----------------------|---------------------------------|---------------------------|----------------------|---------------------------------|
| | | Product | K2O equivalent e/ | Customs value (thousands) | Product | K2O equivalent e/ | Customs value (thousands) | Product | K2O equivalent e/ | Customs value (thousands) |
| | | | | | | | | | | |
| Potassium chloride 2/ 3/ | 61 | 3,440,000 | 2,100,000 | \$210,000 | 4,650,000 | 2,840,000 | \$303,000 | 8,090,000 | 4,940,000 | \$512,000 |
| Potassium sulfate | 51 | 29,900 | 15,300 | 5,430 | 30,800 | 15,700 | 6,260 | 60,700 | 31,000 | 11,700 |
| Potassium nitrate | 45 | 7,080 | 3,180 | 2,280 | 14,100 | 6,350 | 4,230 | 21,200 | 9,530 | 6,510 |
| Potassium nitrate mixtures | 14 | 164 | 23 | 42 | 19,900 | 2,780 | 3,050 | 20,000 | 2,800 | 3,090 |
| Total | XX | 3,480,000 | 2,120,000 | 217,000 | 4,720,000 | 2,860,000 | 316,000 | 8,200,000 | 4,980,000 | 534,000 |

e/ Estimated. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

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

3/ Contains imports listed under Harmonized Code Category 3104.10.0000.

Source: Bureau of the Census.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF POTASH, BY COUNTRY 1/ 2/

(Metric tons of product)

| Country | Potassium chloride | | Potassium sulfate | | Potassium nitrate | | Potassium sodium nitrate | | Total | | Total value (thousands) | | | |
|----------------|--------------------|-----------|-------------------|--------|-------------------|--------|--------------------------|--------|-----------|-----------|----------------------------|---------|---------|---------|
| | | | | | | | | | | | Customs | | C.i.f. | |
| | 1996 | 1997 | 1996 | 1997 | 1996 | 1997 | 1996 | 1997 | 1996 | 1997 | 1996 | 1997 | 1996 | 1997 |
| Belgium | 2,800 | -- | 3,450 | 1,160 | -- | 40 | -- | -- | 6,250 | 1,200 | \$956 | \$227 | \$1,180 | \$277 |
| Canada | 7,830,000 | 7,630,000 | 5,580 | 7,250 | 92 | 3 | 2,430 | 540 | 7,840,000 | 7,630,000 | 566,000 | 480,000 | 653,000 | 564,000 |
| Chile | -- | -- | -- | 100 | 20,100 | 11,200 | 34,100 | 19,500 | 54,300 | 30,800 | 10,600 | 6,420 | 12,000 | 7,260 |
| Germany | 3,290 | 5,060 | 41,600 | 51,700 | 203 | 346 | -- | -- | 45,100 | 57,100 | 7,730 | 9,860 | 8,980 | 11,300 |
| Israel | 63,400 | -- | -- | -- | 16,100 | 8,040 | -- | -- | 79,500 | 8,040 | 11,400 | 2,210 | 13,000 | 2,590 |
| Poland | -- | 18,700 | -- | -- | 36 | 51 | -- | -- | 36 | 18,700 | 18 | 2,070 | 20 | 2,390 |
| Russia | 374,000 | 443,000 | 50 | -- | -- | -- | -- | -- | 374,000 | 443,000 | 25,800 | 32,000 | 31,400 | 36,000 |
| United Kingdom | 1,760 | 450 | -- | -- | -- | -- | -- | -- | 1,760 | 450 | 244 | 220 | 282 | 249 |
| Other | 22 | 374 | 9 | 501 | 1,700 | 1,490 | 39 | 4 | 1,770 | 2,370 | 576 | 1,150 | 710 | 1,370 |
| Total | 8,280,000 | 8,090,000 | 50,700 | 60,700 | 38,200 | 21,200 | 36,600 | 20,000 | 8,400,000 | 8,200,000 | 623,000 | 534,000 | 721,000 | 626,000 |

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Crop year 1996 contains data from July 1, 1995 to June 30, 1996 and crop year 1997 contains data from July 1, 1996 to June 30, 1997.

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