

Mineral Industry Surveys

For information, contact:

Stephen M. Jasinski, Phosphate Rock Commodity Specialist
U.S. Geological Survey
983 National Center
Reston, VA 20192
Telephone: (703) 648-7711, Fax: (703) 648-7757
E-mail: sjasinsk@usgs.gov

Hoa P. Phamdang (Data)
Telephone: (703) 648-7965
Fax: (703) 648-7975
E-mail: hphamdan@usgs.gov

Internet: <http://minerals.usgs.gov/minerals>

MARKETABLE PHOSPHATE ROCK IN CROP YEAR—2003

U.S. production of marketable phosphate rock increased by 14.5% to 35.6 million metric tons (Mt) in Crop Year 2003 (July 1, 2002-June 30, 2003) compared with 31.1 Mt in Crop Year 2002 according to the U.S. Geological Survey (USGS). The increase resulted from the rebound in the domestic market that occurred in calendar year 2002, after phosphate rock mine production and sales reached record low levels in 2001. In the first 6 months of 2003, two mines were closed because of high stocks.

Data for this report were collected through monthly and semi-annual canvasses of U.S. phosphate rock producers. All companies that produced phosphate rock in the United States during the period participated in the voluntary surveys, representing 100% of the production, sold or used, and value data shown in the tables. Trade data were provided by the U.S. Census Bureau and the Moroccan phosphate producer.

Marketable phosphate rock sold or used was 35.6 Mt, 5% higher than in Crop Year 2002. The manufacturing of wet-process phosphoric acid for fertilizers and animal feed supplements accounted for more than 95% of phosphate rock

consumption. The remainder was used to produce elemental phosphorus and phosphorus compounds. Estimated domestic consumption increased to 38 Mt.

Compared with Crop Year 2002, producers' stocks on June 30, 2003, decreased by 2% nationwide; by region, stocks decreased 3% in the Florida and North Carolina region and fell lightly in the Idaho and Utah region. U.S. ending stocks represented more than 4 months of average production in Crop Year 2003.

The average value of marketable phosphate rock sold or used in the United States was \$27.06 per metric ton (t), compared with \$27.85 in 2002. U.S. Census Bureau reported exports of 61,000 metric tons, although actual exports by producers were much less. Census data contained exports of previously imported material. Imports of phosphate rock were estimated to be 2.5 Mt, using U.S. Census Bureau trade data and export data from the Moroccan producer. More than half of all imports from Morocco, the major supplier to the United States, were suppressed by Census.

TABLE 1
SALIENT U.S. PHOSPHATE ROCK STATISTICS¹

(Thousand metric tons and thousand dollars)

	Crop year ²	
	2002	2003
Mine production (crude ore)	131,000	156,000
Marketable production	31,100	35,600
P ₂ O ₅ content	9,080	10,600
Value	\$865,000	\$958,000
Average, dollars per metric ton ³	\$27.69	\$26.93
Sold or used by producers ⁴	33,800	35,600
P ₂ O ₅ content	9,880	10,500
Value ⁵	\$941,000	\$963,000
Average, dollars per metric ton	\$27.85	\$27.06
Exports ⁶	35 ^r	61
Value	NA	NA
Average, dollars per metric ton ⁷	W	W
Imports for consumption ^{e, 8}	2,680	2,500
Cost, insurance, and freight value	\$130,000	\$91,000
Average, dollars per metric ton	\$48.38	\$36.40
Consumption ^{e, 9}	36,500	38,000
Stocks, June, 30: Producers	8,120	7,930

^eEstimated. ^rRevised. NA Not available. W Withheld to avoid disclosing company proprietary data.

¹Data are rounded to no more than three significant digits; except prices.

²July 1-June 30.

³Average value is based on sold or used values.

⁴Includes domestic sales and exports.

⁵Total value of all domestic and export sales.

⁶Source: U.S. Census Bureau.

⁷Value of exports reported to the U.S. Geological Survey by companies.

⁸Some phosphate rock import tonnage and value were suppressed by the U.S. Census Bureau. Estimates are based on reports from the U.S. Census Bureau and the Moroccan phosphate rock producer.

⁹Expressed as sold or used plus imports minus exports.

TABLE 2
PRODUCTION OF PHOSPHATE ROCK IN THE UNITED STATES, BY REGION¹

(Thousand metric tons and thousand dollars)

Period and region	Mine production (Crude ore)		Marketable production			Ending stocks, rock
	Rock	P ₂ O ₅ content	Beneficiated		Value ²	
			Rock	P ₂ O ₅ content		
Crop year 2002:						
Florida and North Carolina	125,000	13,900	26,800	7,890	766,000	6,080
Idaho and Utah	5,530	1,280	4,230	1,190	94,400	2,040
Total	131,000	15,100	31,100	9,080	860,000	8,120
Crop year 2003:						
July-December, 2002:						
Florida and North Carolina	74,400	6,790	15,400	4,700	426,000	6,560
Idaho and Utah	3,570	800	2,830	742	62,800	2,300
Total	78,000	7,590	18,200	5,440	489,000	8,860
January-June, 2003:						
Florida and North Carolina	74,400	6,820	15,000	4,430	415,000	5,900
Idaho and Utah	3,280	722	2,310	685	53,300	2,030
Total	77,700	7,540	17,300	5,120	469,000	7,930
Grand total	156,000	15,100	35,600	10,600	958,000	XX

XX Not applicable.

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

²Calculated value based on the sold or used value.

TABLE 3
PHOSPHATE ROCK SOLD OR USED BY PRODUCERS
IN THE UNITED STATES, BY GRADE¹

(Thousand metric tons and thousand dollars)

Period, grade, region (percent BPL ² content)	P ₂ O ₅		
	Rock	content	Value ³
Crop year 2002	33,800	9,880	941,000
Crop year 2003:			
July-December 2002:			
60 to less than 66	13,900	4,250	370,000
Other ⁴	3,500	912	102,000
Total	17,400	5,160	472,000
January-June 2003:			
60 to less than 66	16,000	4,670	432,000
Other ⁴	2,280	672	59,300
Total	18,200	5,340	492,000
Grand total	35,600	10,500	963,000
Florida and North Carolina	30,400	9,070	841,000
Idaho and Utah	5,150	1,440	122,000

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

²1.0% BPL (bone phosphate of lime or tricalcium phosphate) = 0.458% P₂O₅.

³Free on board mine.

⁴Includes less than 60% and greater than 70% BPL content.

TABLE 4
VALUE OF U.S. PHOSPHATE ROCK, BY GRADE

(Dollars per metric ton, free on board mine)

Grade (percent BPL ¹ content)	Crop year 2002			Crop year 2003		
	Domestic	Export	Average	Domestic	Export	Average
70 to more than 74	W	--	W	W	W	W
66 to less than 70	27.11	--	27.11	23.89	--	23.89
Less than 66	27.69	--	27.69	27.00	--	27.00
Weighted average	27.85	--	27.85	27.06	W	27.06

W Withheld to avoid disclosing company proprietary data; included in "Average" and/or "Weighted average." -- Zero.

¹1.0% BPL (bone phosphate of lime or tricalcium phosphate) = 0.458% P₂O₅.