USGS
science for a changing world

125 years of science for America 1879–2004

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—CROP YEAR 2004

U.S. production of marketable phosphate rock increased slightly to 36.1 million metric tons (Mt) in Crop Year 2004 (July 1, 2003-June 30, 2004) compared with 35.6 Mt in Crop Year 2003 according to the U.S. Geological Survey (USGS).

Data for this report were collected through monthly and semiannual 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 36.7 Mt, a 3% increase compared with Crop Year 2003. The manufacturing of wet-process phosphoric acid for fertilizers and animal feed supplements was estimated to have accounted for more than 95% of phosphate rock consumption. The remainder was used to produce elemental phosphorus or in other nonfertilizer applications. Estimated domestic consumption increased by 3% to 39 Mt compared with 38 Mt in Crop Year 2003.

Compared with Crop Year 2003, producers' stocks decreased slightly nationwide; by region, stocks decreased slightly in the Florida and North Carolina region and increased by 5% in the Idaho and Utah region. U.S. ending stocks represented 2.6 months of average production in Crop Year 2004.

The average value of marketable phosphate rock sold or used in the United States was $27.12 per metric ton compared with $27.06 in 2003. U.S. Census Bureau reported that 58,000 metric tons were exported in Crop Year 2004, although actual exports reported by producers were much less. Census data included exports of previously imported material. Imports of phosphate rock were estimated to be 2.4 Mt, using U.S. Census Bureau trade data and export data from the Moroccan producer. Much of the import tonnage and value data for phosphate rock imports from Morocco were suppressed by the U.S. Census Bureau.

The two largest phosphate rock producers in the United States, IMC Global Inc. and Cargill Crop Nutrition, announced plans to merge in February 2004. The new company, which will be known as The Mosaic Company, will become the second largest fertilizer company in the world, in terms of sales, after Yara International ASA of Norway. Mosaic would control 55% of domestic phosphate rock production capacity and about 57% of U.S. phosphoric acid (P_2O_5 content) production capacity. Worldwide, it would have 13% of phosphate rock capacity and 14.4% of phosphoric acid capacity (Green Markets, 2004). As of September 1, 2004, the merger had received regulatory approval from the Governments of the United States and Canada. The merger still must be approved by IMC shareholders and regulators in Brazil (IMC Global Inc., 2004).

In March, Cargill purchased the Wingate Creek Mine in Manatee County, FL, from the holding company for the former owner, the bankrupt Mulberry Corporation (Cargill Crop Nutrition, 2004). Cargill plans to reopen the mine in late 2004 after it receives the necessary permits (White, 2004§[1]).

References Cited

Cargill Crop Nutrition, 2004, Cargill Crop Nutrition acquires Wingate Creek Mine: Riverview, FL, Cargill Crop Nutrition press release, March 23, 1 p.

Green Markets, 2004, Cargill and IMC agree to merge: Green Markets, v. 28, no. 5, February 2, p. 1, 11-12.

IMC Global Inc., 2004, IMC Global and Cargill receive Canadian antitrust clearance for pending transaction: Lake Forest, IL, IMC Global Inc. press release, September 2, 2 p.

Internet Reference Cited

White, Dale, 2004 (August 25), Cargill plans to reopen mine, Herald-Tribune, accessed August 26, 2004, via URL http://www.heraldtribune.com.

[1]A reference that includes a section mark (§) is found in the Internet Reference Cited section.

TABLE 1
SALIENT U.S. PHOSPHATE ROCK STATISTICS[1]

(Thousand metric tons and thousand dollars)

	Crop Year[2]	
	2003	2004
Mine production (crude ore)	156,000	151,000
Marketable phosphate rock production	35,600	36,100
P_2O_5 content	10,600	10,500
Value	958,000	982,000
Average, dollars per metric ton[3]	26.93	27.18
Sold or used by producers[4]	35,600	36,700
P_2O_5 content	10,500	10,600
Value[5]	963,000	995,000
Average, dollars per metric ton[3]	27.06	27.12
Exports[6]	61	58
Value	NA	NA
Average, dollars per metric ton[7]	W	W
Imports for consumption[e, 8]	2,500	2,400
Cost, insurance, and freight value	91,000	88,500
Average, dollars per metric ton	36.40	36.88
Consumption[e, 9]	38,000	39,000
Stocks, June 30, producers'	7,930	7,890

[e]Estimated. NA Not available. W Withheld to avoid disclosing company proprietary data.

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

[2]July 1-June 30.

[3]Average value is based on sold or used values.

[4]Includes domestic sales and exports.

[5]Total value of all domestic and export sales.

[6]Source: U.S. Census Bureau.

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

[8]Some phosphate rock import tonnage and value data 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.

[9]Expressed as sold or used plus imports minus exports.

TABLE 2
PRODUCTION OF PHOSPHATE ROCK IN THE UNITED STATES, BY REGION[1]

(Thousand metric tons and thousand dollars)

Period and region	Mine production (Crude ore)		Marketable production			
			Beneficiated			Ending stocks, rock
	Rock	P_2O_5 content	Rock	P_2O_5 content	Value[2]	
Crop Year 2003:						
Florida and North Carolina	149,000	13,600	30,400	9,130	842,000	5,900
Idaho and Utah	6,850	1,520	5,150	1,430	116,000	2,030
Total	156,000	15,100	35,600	10,600	958,000	7,930
Crop Year 2004:						
July-December 2003:						
Florida and North Carolina	72,000	6,670	15,100	4,480	419,000	5,340
Idaho and Utah	3,590	777	2,580	662	58,400	2,200
Total	75,600	7,450	17,700	5,140	477,000	7,540
January-June 2004:						
Florida and North Carolina	72,200	6,760	16,000	4,710	444,000	5,770
Idaho and Utah	3,250	710	2,400	630	61,400	2,130
Total	75,400	7,470	18,400	5,340	505,000	7,890
Grand total	151,000	14,900	36,100	10,500	982,000	XX

XX Not applicable.

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

[2]Calculated value based on the sold or used value.

TABLE 3
PHOSPHATE ROCK SOLD OR USED BY PRODUCERS
IN THE UNITED STATES, BY GRADE[1]

(Thousand metric tons and thousand dollars)

Period, grade, region (percentage of BPL[2] content)	Rock	P_2O_5 content	Value[3]
Crop Year 2003:	35,600	10,500	963,000
Crop Year 2004:			
July-December 2003:			
60 to less than 66	15,800	4,580	419,000
Other[4]	2,410	671	70,400
Total	18,200	5,250	490,000
January-June 2004:			
60 to less than 66	17,600	5,120	476,000
Other[4]	928	223	29,600
Total	18,500	5,340	506,000
Grand total	36,700	10,600	995,000
Florida and North Carolina	31,800	9,330	879,000
Idaho and Utah	4,880	1,260	116,000

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

[2]1.0% BPL (bone phosphate of lime or tricalcium phosphate) = 0.458% P_2O_5.

[3]Free on board mine.

[4]Includes 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 (percentage of BPL[1] content)	Crop Year 2003			Crop Year 2004		
	Domestic	Export	Average	Domestic	Export	Average
70 to more than 74	W	W	W	W	W	W
66 to less than 70	23.89	--	23.89	28.17	--	28.17
Less than 66	27.00	--	27.00	26.98	--	26.98
Weighted average	27.06	W	27.06	27.12	W	27.12

W Withheld to avoid disclosing company proprietary data; included in "Average" and/or "Weighted average." -- Zero.
[1]1.0% BPL (bone phosphate of lime or tricalcium phosphate) = 0.458% P_2O_5.