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Mineral Industry Surveys

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MARKETABLE PHOSPHATE ROCK—CROP YEAR 2002

U.S. production of marketable phosphate rock decreased by 16% to 31.1 million metric tons (Mt) in Crop Year 2002 (July 1, 2001-June 30, 2002) compared with 37.2 Mt in Crop Year 2001 according to the U.S. Geological Survey (USGS). Domestic producers continued to be affected by a combination of increased worldwide competition and a drop in demand for phosphate fertilizers, especially in China and India, the largest markets for U.S. fertilizer exports. The market situation began to improve slightly in early 2002 with production of both phosphoric acid and diammonium phosphate increasing from the comparable period in 2001 (The Fertilizer Institute, 2002). Production was down in part because IMC Phosphates MP Inc., the largest producer, closed its mines for the months of July and December to reduce stocks of phosphate rock that had accumulated from the 8-month closure of the company's two phosphoric acid plants in Louisiana in 2001 (IMC Global Inc., 2002, p. 3). Other companies also adjusted production rates to reduce stocks.

The data for this report were collected through monthly and semi-annual surveys 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 33.8 Mt, 3% lower than in Crop Year 2001. Producers stocks decreased by 25% nationwide. By region, stocks decreased by 29% in the Florida and North Carolina region and by 11% in the Idaho and Utah region. U.S. ending stocks represented 3.8 months of average production in Crop Year 2002. The average value of marketable phosphate rock sold or used in the United States was $27.85 per metric ton (t), compared with $25.26 in 2000.

U.S. produces reported no exports of phosphate rock in Crop Year 2002. In Crop 2001, U.S. Census Bureau export data was used to protect company proprietary data. A substantial amount of the 168,000 t reported by Census in 2001 was exports of previously imported phosphate rock.

During Crop Year 2002, imports of phosphate rock were estimated at 2.68 Mt, a 34% increase from that of Crop Year 2001. This resulted from one company changing from a domestic mine source to imported phosphate rock for phosphoric acid production. Import statistics were estimated based upon data provided to the USGS by the single producer in Morocco and from Census. Much of the import data from Morocco, the major supplier to the United States, were suppressed by Census.

The manufacturing of fertilizers and animal feed supplements accounted for more than 90% of phosphate rock consumption. The remainder was used to produce elemental phosphorus and phosphorus compounds. Estimated domestic consumption decreased slightly to 36.5 Mt.

Astaris LLC (a joint venture between FMC Corp. and Solutia, Inc.) closed its elemental phosphorus plant in Pocatello, ID, in December 2001. The company opened a new purified phosphoric acid plant in Soda Springs, ID, to supply most of its industrial phosphate applications. Astaris will purchase elemental phosphorus from Monsanto Co., the only remaining producer, for applications that must be manufactured from phosphorus (Astaris LLC, 2001).

References Cited

Astaris LLC, 2001, Astaris announces next steps forward in raw material strategy: St. Louis MO, Astaris LLC press release, October 11, 2 p.

Fertilizer Institute, The, 2002, Fertilizer Record, June 2002: The Fertilizer Institute, July 15, 5 p.

IMC Global Inc., 2002, Form 10-K—Securities and Exchange Commission, 22 p.

TABLE 1
SALIENT U.S. PHOSPHATE ROCK STATISTICS 1/

(Thousand metric tons and thousand dollars)

	Crop year 2/	
	2001	2002
Mine production (crude ore)	154,000	131,000
Marketable production	37,200	31,100
P2O5 content	10,800	9,080
Value	$941,000	$865,000
Average, dollars per metric ton 3/	$25.26	$27.69
Sold or used by producers 4/	34,700	33,800
P2O5 content	10,000	9,880
Value 5/	$873,000	$941,000
Average, dollars per metric ton	$25.14	$27.85
Exports	1,670 6/	--
Value	$52,200	--
Average, dollars per metric ton 7/	$31.29	--
Imports for consumption e/ 8/	2,000	2,680
C.i.f. value e/	$110,000	$130,000
Average, dollars per metric ton	$54.97	$48.38
Consumption e/ 9/	36,600	36,500
Stocks, June, 30: Producers	10,800	8,120

e/ Estimated. -- Zero.

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 were surpressed 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)

	Mine production (Crude ore)		Marketable production			
			Beneficiated			Ending stocks,
Period and region	Rock	P2O5 content	Rock	P2O5 content	Value 2/	rock
Crop year 2001:						
Florida and North Carolina	146,000	13,400	31,400	9,140	800,000	8,520
Idaho and Utah	8,170	1,850	5,880	1,630	141,000	2,280
Total	154,000	15,300	37,200	10,800	941,000	10,800
Crop year 2002:						
July-December 2001:						
Florida and North Carolina	52,300	7,180	11,100	3,260	314,000	5,330
Idaho and Utah	2,600	579	2,030	556	42,100	2,170
Total	54,900	7,760	13,200	3,820	356,000	7,510
January-June 2002:						
Florida and North Carolina	72,800	6,670	15,700	4,620	452,000	6,080
Idaho and Utah	2,930	703	2,200	635	52,400	2,040
Total	75,700	7,370	17,900	5,260	504,000	8,120
Grand total	131,000	15,100	31,100	9,080	860,000	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 (percent BPL 2/ content)	Rock	P2O5 content	Value 3/
Crop year 2001	34,700	10,000	873,000
Crop year 2002:			
July-December 2001:			
60 to less than 66	13,600	3,980	370,000
Other 4/	2,850	812	80,900
Total	16,400	4,790	451,000
January-June 2002:			
60 to less than 66	11,800	3,500	321,000
Other 4/	5,550	1,600	169,000
Total	17,400	5,100	490,000
Grand total	33,800	9,880	941,000
Florida and North Carolina	29,300	8,620	834,000
Idaho and Utah	4,470	1,260	107,000

1/ Data are rounded to no more than three significant digits; may not add to totals shown.
2/ 1.0% BPL (bone phosphate of lime or tricalcium phosphate) = 0.458% P2O5
3/ F.o.b. 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, f.o.b. mine)

Grade	Crop year 2001			Crop year 2002		
(percent BPL 1/ content)	Domestic	Export	Average	Domestic	Export	Average
70 to more than 74	W	W	W	W	--	W
66 to less than 70	31.87	--	31.87	27.11	--	27.11
Less than 66	24.65	W	21.38	27.69	--	27.69
Weighted average	25.13	31.29	25.14	27.85	--	27.85

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% P2O5.