

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
E-mail: sjasinsk@usgs.gov

Roxanne DeLong (Data)
Telephone: (703) 648-7997
Fax: (703) 648-7975

MINES FaxBack: (703) 648-4999
Internet: <http://minerals.usgs.gov/minerals>

MARKETABLE PHOSPHATE ROCK—CROP YEAR 2000

U.S. production of marketable phosphate rock decreased 5% to 40.4 million metric tons (Mt) in crop year 2000 (July 1, 1999-June 30, 2000) compared with 42.6 Mt in crop year 1999 according to the U.S. Geological Survey (USGS).

The data for this report are collected through monthly and semi-annual surveys of U.S. phosphate rock producers. All 11 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, including exports, was 39.3 Mt; 9% lower than in crop year 1999. Producers stocks increased 18% nationwide. By region, stocks increased 20% in the Florida-North Carolina region and 7% in the Idaho-Utah region. U.S. ending stocks represented slightly more than 2 months of average production in crop year 2000. The average value of marketable phosphate rock sold or used in the United States was \$26.39 per metric ton (t), compared with \$30.43 in 1999.

Exports, as reported by the U.S. Census Bureau, increased from 332,000 t in crop year 1999 to 343,000 t in crop year 2000. The increase was likely the result of trading companies selling imported phosphate rock, however, detailed information was not available to formulate an estimate. In the past several years, exports of phosphate rock by producers have decreased substantially as it has become more profitable to ship fertilizer products than phosphate rock. This combined with mine and plant closures that have occurred in the past crop year, make it highly unlikely there will be any future growth in exports of domestic phosphate rock.

During crop year 2000, imports of phosphate rock were

estimated at 1.93 Mt, a 9% decrease from that of crop year 1999, owing to lower fertilizer production. Import data 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, was 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 9% to 40.9 Mt, compared with 45.1 Mt in crop year 2000.

In late 1999, IMC-Agrico Co., the major U.S. producer of phosphate rock, permanently closed two mines as part of a company restructuring program (IMC Global, 1999). Nu-Gulf Industries, Inc. indefinitely closed the Wingate Creek Mine in December, after the parent company, Mulberry Corporation, ceased production of phosphoric acid and fertilizers (Green Markets, 2000). In June 2000, Agrifos, LLC, announced it would permanently close the Nichols Mine in Polk County, FL, effective August 6, 2000 (Fertilizer Markets, 2000).

References Cited

- Fertilizer Markets, 2000, Agrifos to cease working Nichols, FL phosrock mine: Fertilizer Markets, v. 10, no. 49, June 26, p. 3.
- Green Markets, 2000, PCS, Mulberry, and Wil-Gro announce closures: Green Markets, v. 24, no. 2, January 10, p. 1.
- IMC Global Inc., 1999, IMC Global announces significant phosphate plant and mine shutdown: Northbrook, IL, IMC Global Inc. press release, November 11, 2 p.

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

(Thousand metric tons and thousand dollars)

	Crop year 2/	
	1999	2000
Mine production (crude ore)	164,000 r/	164,000
Marketable production	42,600	40,400
P ₂ O ₅ content	12,400	11,800
Value	\$1,250,000	\$1,060,000
Average, dollars per metric ton 3/	\$29.17	\$26.16
Sold or used by producers 4/	43,300	39,300
P ₂ O ₅ content	12,600	11,500
Value 5/	\$1,320,000	\$1,040,000
Average, dollars per metric ton	\$30.43	\$26.39
Exports 6/	332	343
Value	\$12,000	\$15,800
Average, dollars per metric ton 7/	\$36.21	\$46.05
Imports for consumption e/ 8/	2,130	1,930
C.i.f. value e/	\$126,000	\$115,000
Average, dollars per metric ton	\$59.38	\$59.88
Consumption e/ 9/	45,100	40,900
Stocks, June, 30: Producers	6,840	8,040

e/ Estimated. r/ Revised. NA Not available.

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 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			Ending stocks, rock
	Rock	P ₂ O ₅ content	Beneficiated		Value 2/	
			Rock	P ₂ O ₅ content		
Crop year 1999	164,000 r/	12,300 r/	42,600	12,400	1,250,000	6,840
Crop year 2000:						
July-December, 1999:						
Florida and North Carolina	75,200	7,100	17,300	5,060	458,000 r/	5,200
Idaho and Utah	6,460	1,150	3,010	852	72,700	1,720
Total	81,600	8,250	20,300	5,910	531,000 r/	6,920
January-June, 2000:						
Florida and North Carolina	78,200	7,370	17,400	5,100	455,000	6,430
Idaho and Utah	3,780	860	2,740	796	70,900	1,620
Total	81,900	8,230	20,100	5,900	526,000	8,040
Grand total	164,000	16,500	40,400	11,800	1,060,000	XX

r/ Revised. 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 and grade (percent BPL 2/ content)	P ₂ O ₅		Value 3/
	Rock	content	
Crop year 1999	43,300	12,600	\$1,320,000
Crop year 2000:			
July-December 1999:			
60 to less than 66	17,800	5,220	468,000
Other 4/	2,430	676	71,400
Total	20,200	5,890	540,000
January-June 2000:			
60 to less than 66	17,400	5,110	459,000
Other 4/	1,670	482	38,300
Total	19,100	5,590	497,000
Grand total	39,300	11,500	1,040,000

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 (percent BPL 1/ content)	Crop year 1999			Crop year 2000		
	Domestic	Export	Average	Domestic	Export	Average
70 to less than 72	W	W	W	W	W	W
66 to less than 70	26.31	W	26.89	28.30	--	28.30
60 to less than 66	31.59	W	31.60	26.18	W	26.34
Weighted average 2/	28.34	36.21	30.43	26.25	46.05	26.39

W Withheld to avoid disclosing company proprietary data. -- Zero.

1/ 1.0% BPL (bone phosphate of lime or tricalcium phosphate)=0.458% P₂O₅.

2/ Includes less than 60% and greater than 72% in addition to the grades listed.