

# Mineral Industry Surveys

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## MARKETABLE PHOSPHATE ROCK—CROP YEAR 2009

U.S. production of marketable phosphate rock was 27.8 million metric tons (Mt) in Crop Year 2009 (July 1, 2008 through June 30, 2009) compared with 30.3 Mt in Crop Year 2008, according to the U.S. Geological Survey (USGS). At the start of Crop Year 2009, world phosphate rock prices peaked at nearly \$450 per ton and production of phosphate rock and fertilizers were near full capacity. A few months into the Crop Year, the world recession affected the phosphate market. Stocks of phosphate rock and fertilizers grew rapidly as the high prices caused many farmers to delay purchases until the prices dropped, and others were unable to secure credit to make purchases of fertilizers. Producers closed plants and reduced mine output in response to the circumstances.

Production and consumption of phosphate rock declined significantly from those of Crop Year 2008. Average prices were higher owing to record price levels in the first quarter of the Crop Year. At the end of June 2009, the world phosphate rock price had fallen to about \$90 per ton.

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

phosphate producer. There were no reported exports of phosphate rock by mining companies in Crop Year 2009.

Marketable phosphate rock used was 24.7 Mt, compared with 31.4 Mt in Crop Year 2008. There were no reported sales of phosphate rock. 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, defluorinated phosphate rock, or for direct application to soil.

Estimated domestic consumption decreased by 22% to 26.8 Mt in Crop Year 2009 from 34.2 Mt in Crop Year 2008. Producers' stocks increased by 82% to 8.89 Mt from 4.89 Mt in Crop Year 2008.

The average value of marketable phosphate rock sold or used in the United States was \$116.75 per metric ton, compared with \$80.00 per ton in Crop Year 2008. Imports of phosphate rock were estimated to be 2.12 Mt, using U.S. Census Bureau trade data and export data from the Moroccan producer. Some import tonnage and value data for Moroccan phosphate rock imports were suppressed by the U.S. Census Bureau.

TABLE 1  
SALIENT U.S. PHOSPHATE ROCK STATISTICS<sup>1</sup>

(Thousand metric tons and thousand dollars)

	Crop year <sup>2</sup>	
	2008	2009
Mine production (crude ore)	128,000	115,000
Marketable phosphate rock production	30,300	27,800
P <sub>2</sub> O <sub>5</sub> content	8,480	7,950
Value	2,550,000	3,090,000
Average, dollars per metric ton <sup>3</sup>	84.07	111.09
Sold or used by producers	31,400	24,700
P <sub>2</sub> O <sub>5</sub> content	8,980	7,070
Value	2,510,000	2,890,000
Average, dollars per metric ton <sup>3</sup>	80.00	116.75
Imports for consumption: <sup>e, 4</sup>	2,800	2,120
Cost, insurance, and freight value	148,000	209,000
Average, dollars per metric ton	52.98	98.69
Consumption <sup>e, 5</sup>	34,200	26,800
Stocks, June 30, producers <sup>1</sup>	4,890	8,890

<sup>e</sup>Estimated.

<sup>1</sup>Data are rounded to no more than three significant digits, except prices.

<sup>2</sup>July 1-June 30.

<sup>3</sup>Average value is based on sold or used values.

<sup>4</sup>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.

<sup>5</sup>Expressed as sold or used plus imports.

TABLE 2  
PRODUCTION OF PHOSPHATE ROCK IN THE UNITED STATES<sup>1</sup>

(Thousand metric tons and thousand dollars)

Period	Mine production, crude ore		Marketable production, beneficiated			Ending stocks, rock
	Rock	P <sub>2</sub> O <sub>5</sub> content	Rock	P <sub>2</sub> O <sub>5</sub> content	Value <sup>2</sup>	
Crop Year 2008:	128,000	13,000	30,300	8,480	\$2,550,000	4,890
Crop Year 2009:						
July-December 2008	61,100	6,000	14,900	4,220	585,000	6,340
January-June 2009	53,800	5,430	12,900	3,730	2,500,000	8,890
Total	115,000	11,400	27,800	7,950	3,090,000	XX

XX Not applicable.

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

<sup>2</sup>Based on the per ton sold or used values.

TABLE 3  
PHOSPHATE ROCK SOLD OR USED BY PRODUCERS  
IN THE UNITED STATES<sup>1</sup>

(Thousand metric tons and thousand dollars)

Period	Rock	P <sub>2</sub> O <sub>5</sub> content	Value <sup>2</sup>
Crop Year 2008:	31,400	8,980	\$2,510,000
Crop Year 2009:			
July-December 2008	13,500	3,840	574,000
January-June 2009	11,200	3,230	2,310,000
Total	24,700	7,070	2,890,000

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

<sup>2</sup>Free on board mine.