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# Phosphate Rock: United States

April 2018



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# About This Report

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## Scope & Method

This report forecasts to 2022 US phosphate rock demand and mine production in metric tons. Total demand is segmented by market in terms of:

- diammonium phosphate (DAP) fertilizer
- monoammonium phosphate (MAP) fertilizer
- other fertilizers such as triple superphosphate (TSP) and ammonium polyphosphate
- animal feed
- other markets such as food and beverage, and industrial applications

To illustrate historical trends, total demand, total mine production, and the various demand segments are provided in annual series from 2007 to 2017.

Phosphate rock refers to the beneficiated product of phosphate ore ranging in grade from about 30% to 33% phosphorus pentoxide (P<sub>2</sub>O<sub>5</sub>).

This report quantifies trends in various measures of growth and volatility. Growth (or decline) expressed as an average annual growth rate (AAGR) is the least squares growth rate, which takes into account all available datapoints over a period. The volatility of datapoints around a least squares growth trend over time is expressed via the coefficient of determination, or r<sup>2</sup>. The most stable data series relative to the trend carries an r<sup>2</sup> value of 1.0; the most volatile – 0.0. Growth calculated as a compound annual growth rate (CAGR) employs, by definition, only the first and last datapoints over a period. The CAGR is used to describe forecast growth, defined as the expected trend beginning in the base year and ending in the forecast year. Readers are encouraged to consider historical volatility when assessing particular annual values along the forecast trend, including in the forecast year.

Key macroeconomic indicators are also provided with quantified trends. Other various topics, including profiles of pertinent leading suppliers, are covered in this report. A full outline of report items by page is available in the Table of Contents.

## Sources

*Phosphate Rock: United States* (FF65020) represents the synthesis and analysis of data from various primary, secondary, macroeconomic, and demographic sources including:

- firms participating in the industry, and their suppliers and customers
- government/public agencies
- national, regional, and international non-governmental organizations

## About This Report

- trade associations and their publications
- the business and trade press
- indicator forecasts by The Freedonia Group
- the findings of other reports and studies by The Freedonia Group

Specific sources and additional resources are listed in the Resources section of this publication for reference and to facilitate further research.

## Industry Codes

**Table 8 | Industry Codes Related to Phosphate Rock**

<b>NAICS/SCIAN 2007</b>		<b>SIC</b>	
<b>North American Industry Classification System</b>		<b>Standard Industrial Classification</b>	
212392	Phosphate Rock Mining	1475	Phosphate Rock
311119	Other Animal Food Manufacturing	2048	Prepared Feed and Feed Ingredients for Animals and Fowls, Except Dogs and Cats
325188	All Other Basic Inorganic Chemical Manufacturing	2819	Industrial Inorganic Chemicals, NEC
325312	Phosphatic Fertilizer Manufacturing	2874	Phosphatic Fertilizers

Source: US Census Bureau

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## Resources

### The Freedonia Group

#### Freedonia Industry Studies

*US Lawn and Garden Consumables*, February 2018

*Pesticide Adjuvant Market in the US*, March 2017

*Agricultural Pesticide Market in the US*, January 2017

#### Freedonia Focus Reports

*Agricultural Pesticides: United States*

*Fertilizers: United States*

*Field Crop Seeds: United States*

*Mining & Quarrying: United States*

*Peat: United States*

*Perlite & Vermiculite: United States*

*Pesticide Adjuvants: United States*

*Potash: United States*

*Soybean Products: United States*

#### Freedonia Custom Research

### Trade Publications

*AgProfessional*

*CropLife*

*Industrial Minerals*

*The Progressive Farmer*

### Agencies & Associations

The Fertilizer Institute

Food and Agriculture Organization of the United Nations (FAO)

Global Phosphorus Research Initiative

International Fertilizer Association

International Fertiliser Society

International Plant Nutrition Institute

United States Department of Commerce

Bureau of Economic Analysis

United States Census Bureau

United States Department of Labor

Occupational Safety and Health Administration

United States Environmental Protection Agency

United States Geological Survey