

Forecast of Integrated Phosphorus Industry in China

<https://marketpublishers.com/r/F5BE5E88C4EEN.html>

Date: April 2015

Pages: 94

Price: US\$ 17,280.00 (Single User License)

ID: F5BE5E88C4EEN

Abstracts

Background:

Global phosphorus resources are decreasing in quantity as well as in quality in recent years. As a large phosphorus country, China, who is blessed with abundant phosphorus resources, is also facing the risk of dying out phosphate rock. Then how long will China's phosphorus resources be available? When will the "Phosphorus Peak" arrive? What will China do to prepare for the up-coming phosphorus peak?

Currently, China's traditional phosphorus market is in intense competition, especially the phosphate fertilizer and yellow phosphorus sectors. The competition not only comes from the tightening supply of phosphate rock, but also the sluggish downstream market demand. That has put many phosphorus enterprises into an embarrassing situation. How can those enterprises stand out amid the intense market competition and what is going to happen in China's phosphorus industry after the peak? In order to answer these questions and offer insight into the Chinese phosphorus industry, CCM has cooperated with Phos4ever to conduct a comprehensive study on these topics. In which, CCM has collected insiders' and experts' views from phosphorus enterprises, official department, and academic institutes through telephone investigation, site visit and in-depth interview. Moreover, CCM has done deep research through import & export analysis, cost analysis, company research, downstream investigation, etc. to unfold the current situation of China's phosphorus industry. At the same time, based on comprehensive quality and quantity analysis, CCM has forecasted China's future phosphorus industry through PEST analysis.

Industrial affairs:

Throat-cutting competition in China's traditional phosphorus industry;

Integration behaviors are commonly seen in China's phosphorus industry;

China's exploitation cost of phosphate rock is increasing;

Quality of phosphate rock in China is on the decline;

Export quota for phosphate rock in China is decreasing

Output of China's phosphate fertilizers witnessed downtrend in 2013

China has reduced tariff for phosphate fertilizer export

Supply of yellow phosphorus is on the decline in recent years

China's position:

China is the second largest phosphate rock country in the world, and the largest yellow phosphorus and fertilizer supplier in the world. China plays an important role in the global phosphorus industry.

Purpose of report:

Forecast the phosphorus peak in China's phosphorus industry;

Forecast future trends and development in China's phosphorus industry;

Forecast the technology development trend in China's phosphorus industry;

Forecast on development trends of phosphorus downstream markets in China

Applicable user:

Miners and producers of phosphate rock

Downstream players of phosphate rock, including: yellow phosphorus producers, glyphosate producers, phosphate producers, fertilizer producers,

phosphide producers, etc.

Academic institutes and association related to phosphorus industry

Traders of phosphate fertilizers

What to report:

Phosphate rock supply in China, including deposit, distribution, reserves, output, quality, etc.

Exploitation condition and cost of phosphate rock in China

Application of phosphate rock in China, such as different kinds of phosphate fertilizer (MAP, DAP, etc.), yellow phosphorus, phosphoric acids, phosphate and phosphides

Consumption volume and consumption pattern of phosphate rock in China

Forecast on consumption of phosphate rock in China

Technology trend of China's phosphorus industry

Phosphorus recovery at home and abroad

Policies related to China's phosphorus industry

Available time of phosphate rock in China (based on economic reserves, basic reserves and current proved reserves)

Prospect of China's future phosphorus industry

Forecast on industry:

China will mainly focus on wet-process phosphoric acid technology, phosphorus recovery technology, exploitation and purification of middle-low grade phosphate rock.

Among competitors in phosphorus industry, many enterprises will expand their industrial chain to upstream so as to obtain ample resources and energy to save cost, and to downstream by developing more kinds of high value-added phosphorus products.

Regarding the development of phosphorus downstream markets, thanks to the further industrial structure adjustments, it is estimated the growth rate of primary phosphorus chemical products will fall behind that of the fine phosphorus chemical products.

Value to client:

Know the available time of phosphate rock in China;

Find out which province/region has abundant and good quality phosphorus resources;

Obtain the exploitation cost information of phosphate rock in China;

Check how China's enterprises are preparing for the phosphorus peak;

Obtain an overview of phosphorus downstream markets, such as fertilizer, yellow phosphorus and major phosphorus fine chemical products;

Foresee the cost of China's phosphate rock in the future;

Know more about the Chinese government and local enterprises' actions towards the increasing phosphate rock cost and declining quality;

Realize the investment opportunities in China's phosphorus industry

Methodology:

Desk research

Site visit

Tel investigation

In-depth interview

PEST analysis

Contents

EXECUTIVE SUMMARY

INTRODUCTION AND METHODOLOGY

1 SOURCE OF PHOSPHATE ROCK

1.1 Phosphorus ore

1.1.1 Deposit information

1.1.2 Quality of currently mined phosphate rock

1.1.3 Rock treatment after mining

1.2 Main player in rock production

1.2.1 Miner

1.2.2 Integrated producers to fertilizers

1.2.3 Integrated producers to industrial phosphorus manufactures

1.3 Rock application in China

1.3.1 Rock's main applications

1.3.2 Yellow phosphorus

1.3.2.1 Production

1.3.2.1.1 Capacity and output of yellow phosphorus

1.3.2.1.2 Players

1.3.2.1.3 Regional distribution of yellow phosphorus

1.3.2.2 Technology utilized

1.3.2.3 Consumption in China

1.3.2.3.1 Thermal-process phosphoric acid

1.3.2.3.1.1 Consumption in China

1.3.2.3.1.2 Export

1.3.2.3.2 Phosphoric acid's derivatives

1.3.2.3.2.1 Consumption in China

1.3.2.3.2.2 Export

1.3.2.3.3 Non acid applications

1.3.2.3.3.1 Consumption of yellow phosphorus in non-acid applications of China

1.3.2.3.3.2 Export

1.3.2.4 Yellow phosphorus derivatives

1.3.2.5 Economical model

1.3.2.5.1 Business model for integrated acid applications

1.3.2.5.2 Business model for integrated non-acid applications

1.3.3 Industry development

- 1.3.3.1 Acid application of yellow phosphorus
- 1.3.3.2 Non-acid applications of yellow phosphorus
- 1.4 Estimated quality decrease in time
- 1.5 Estimated exploitation cost increase in time
 - 1.5.1 Projected cost development based on higher exploitation cost
 - 1.5.2 Projected price development based on higher exploitation cost
 - 1.5.3 Projected peak in projected consumption curve
- 1.6 Estimated rock consumption
- 1.7 Possible ways to reshuffle rock consumption

2 PHOSPHORUS RECOVERY

- 2.1 Available methodologies to recover phosphorus
 - 2.1.1 From sewage sludge
 - 2.1.2 Farming manure
 - 2.1.3 Industry
- 2.2 Existing projects worldwide dealing with phosphorus recovery
- 2.3 Development of phosphorus recovery in China
- 2.4 Official responsibilities to deal with phosphorus recovery in China
- 2.5 Existing projects in China
- 2.6 Major obstacles

3 POSSIBLE INFLUENCE OF PEST FACTORS UPON PHOSPHORUS INDUSTRY

- 3.1 Polical factor
 - 3.1.1 Government's role in the industry
 - 3.1.2 Restricted policy in the industry and its effect to the industry
 - 3.1.3 Subsidy policy in the industry and its effect to the industry
 - 3.1.4 Comparison between policy in China with other phosphorus supply countries (such as Europe's declaration of phosphate Rock as critical raw material)
 - 3.1.5 Environmental policy in the industry and its effect to the industry
 - 3.1.6 Possible restricted mining policy in the future
- 3.2 Economic factor
 - 3.2.1 China's economic and its effect to the industry
 - 3.2.2 Oversea economic and its effect to the industry
 - 3.2.3 Possible economic structure adjustment in the future and its effect to the industry
 - 3.2.4 Possible industry and agriculture change in the future and its effect to the industry
- 3.3 Social factor

- 3.3.1 Future population and demographic change and its effect to the industry
- 3.3.2 Urbanization trend in China and its effect to the industry
- 3.3.3 Feature of phosphorus consumption in industrial and agricultural field
- 3.3.4 Public's attitude towards resource recovery business
- 3.3.5 Social features of China's enterprises
- 3.4 Technology factor
 - 3.4.1 R&D environment in China
 - 3.4.2 Current production technology of phosphate fertilizers and yellow phosphorus
 - 3.4.3 Enterprise's attitude towards the electricity limited and new technology
 - 3.4.4 Future possible change of technology

4 QUALITATIVE FORECAST OF PHOSPHORUS INDUSTRY IN CHINA

- 4.1 Forecast of available time of phosphorus in China
- 4.2 Forecast of technology utilized trend of phosphorus in China
- 4.3 Forecast of competition and survey of players in the industry
- 4.4 Forecast of phosphorus downstream development in China

List Of Tables

LIST OF TABLES

Table 1.1.1-1 Types and reserves of phosphorus deposits in China, 2014

Table 1.1.1-2 Proved reserves of phosphate rock in main deposit-holding provinces in China, 2014

Table 1.1.2-1 Content of phosphate rock in some deposits of China's major deposit-holding provinces

Table 1.1.3-1 Mining and rock treatment in China, 2015

Table 1.1.3-2 Agents for flotation in phosphate rock treatment after mining in China

Table 1.1.3-3 Different flotation methods in different types of phosphate rock

Table 1.2.1-1 Distribution of miner of phosphate rock in China, 2012 & 2013

Table 1.2.1-2 Major miner of phosphate rock in China, 2013

Table 1.2.2-1 Major integrated producers to fertilizers in China, 2013-2014

Table 1.2.3-1 Major integrated producers to industrial phosphorus manufactures in China

Table 1.3.2.1.2-1 Top five producers of yellow phosphorus in China, 2013

Table 1.3.2.3-1 Production and consumption of yellow phosphorus in China, 2009-2013

Table 1.3.2.3-2 Consumption of yellow phosphorus in China by region, 2013, tonne

Table 1.3.2.3.1.1-1 Usage of different phosphoric acids in China

Table 1.3.2.3.1.2-1 Export volume of food-grade phosphoric acid in China, 2009-2013

Table 1.3.2.3.2.1-1 Consumption situation of phosphates in China

Table 1.3.2.4-1 Comparision of phosphoric acid by different methods in China

Table 1.3.3.1-1 Capacity of major producers of wet-process phosphoric acid in China, 2013

Table 1.4-1 Evaluated cost of yellow phosphorus based on different grades of phosphate rocks in China, 2014

Table 1.5.1-1 Main factors influencing exploitation cost of phosphate rocks in China

Table 1.5.1-2 Evaluated cost of phosphate rock based on different grades of crude ores in China, 2014

Table 1.5.1-3 Resource tax reform on phosphate rock in China

Table 1.5.1-4 Evaluation on cut-off years and projected cost of phosphate rock in China

Table 2.1.1-1 Treatment of phosphorus in China's sewage sludge, 2012

Table 2.1.1-2 Process introduction of phosphorus recover in sewage sludge

Table 2.1.2-1 Treatment of farming manure for phosphorus recovery

Table 2.2-1 Project dealing with phosphorus recovery from sewage sludge in Amerfoort of the Netherlands

Table 2.2-2 Partners of PhosFarm Project

Table 2.2-3	A project dealing with phosphorus recovery in Austria
Table 2.4-1	Some research on phosphorus recovery supported by the Chinese government, 2010-2014
Table 2.5-1	Major projects dealing with phosphorus recovery in China, 2012-2014
Table 3-1	Conclusion from PEST for China's phosphorus industry
Table 3.1.1-1	Timetable of Five-year Plan in China
Table 3.1.2-1	Policies and regulations on integrating phosphorus chemical industry in China as of June 2014
Table 3.1.2-2	Policies and regulations on phosphate rock mining in China as of June 2014
Table 3.1.2-3	Export quota of phosphate rock in China, 2009-2013
Table 3.1.2-4	Comprehensive energy-consumption of new-build or rebuild device of ammonium phosphate
Table 3.1.2-5	Export tariff of MAP and DAP in China, as of 2015
Table 3.1.2-6	Requirements for existing yellow phosphorus enterprises in China
Table 3.1.2-7	Export tariff and export rebate for yellow phosphorus in China, Jan. 2002-June 2014
Table 3.1.5-1	Environmental indicators of new-build or rebuild MAP and DAP in China
Table 3.1.5-2	Economic technological indicators set for yellow phosphorus equipment in China
Table 3.1.6-1	Entrance threshold of new-build or rebuild phosphorus zone in China
Table 3.2.2-1	Development tendency of economy in major regions in the world, 2009-2013
Table 3.4.1-1	Major methods of ore-dressing in China
Table 4.1-1	Forecast of available time of phosphorus in China

List Of Figures

LIST OF FIGURES

- Figure 1.1.1-1 Distribution of phosphorus deposits in China, 2014
- Figure 1.1.1-2 Share of proved phosphorus reserves in main deposit-holding provinces in China, 2014
- Figure 1.2.1-1 Output of phosphate rock in China, 2009-2014
- Figure 1.2.2-1 Yuntianhua Group's revenue share in phosphorus business
- Figure 1.2.2-2 Anhui Liuguo's revenue share in phosphorus business
- Figure 1.3.1-1 Output of phosphate fertilizer in China, 2009-2013
- Figure 1.3.1-2 Structure of phosphate fertilizer in China, 2013
- Figure 1.3.1-3 Output structure of high-analysis phosphate fertilizer in China, 2009-2013
- Figure 1.3.1-4 Output structure of high-analysis phosphate fertilizer in China, 2013
- Figure 1.3.1-5 Output of low-analysis phosphate fertilizers in China, 2009-2013
- Figure 1.3.2.1.1-1 Capacity and output of yellow phosphorus in China, 2009-2013
- Figure 1.3.2.1.3-1 Distribution of major capacity of yellow phosphorus in China by province, 2013
- Figure 1.3.2.1.3-2 Output structure of yellow phosphorus in China by major production province, 2009-2013
- Figure 1.3.2.2-1 Production process of electric furnace method for producing yellow phosphorus in China
- Figure 1.3.2.3-1 Consumption structure of yellow phosphorus in China by downstream industry, 2013
- Figure 1.3.2.3-2 Consumption of yellow phosphorus in China by downstream industry, 2009-2013
- Figure 1.3.2.3.1.2-1 Export volume of phosphoric acid in China, 2009-2013
- Figure 1.3.2.3.2.2-1 Export situation of phosphates in China, 2009-2013
- Figure 1.3.2.3.3.1-1 Output of phosphorus trichloride in China, 2009-2013
- Figure 1.3.2.3.3.2-1 Export volume of phosphorus trichloride in China, 2009-2013
- Figure 1.3.2.3.3.2-2 Export volume of phosphorus pentoxide in China, 2009-2013
- Figure 1.3.2.5.1-1 Major business models for integrated acid application in China, 2015
- Figure 1.3.2.5.2-1 Business model for integrated non-acid applications in China, 2015
- Figure 1.3.3.2-1 Export volume of phosphate rock in China, 2008-2013
- Figure 1.4-1 Quality of phosphate rock in China, 2005-2014
- Figure 1.5.1-1 Rising cost based on decreasing grades of crude phosphorus ores in China, 2014
- Figure 1.5.2-1 Ex-works price of phosphate rock in China, 2009-2013
- Figure 1.5.2-2 Ex-works price of phosphate rock in China, Jan. 2013-Dec. 2014

Figure 1.5.2-3 Projected price development of phosphate rock in China

Figure 1.5.3-1 Output of phosphate fertilizer and yellow phosphorus, 2000-2014, tonne

Figure 1.6-1 Apparent consumption of phosphate rock in China, 2009-2014

Figure 1.6-2 Comparison of consumption of phosphate rock by downstream products between China and the world, 2012

Figure 1.7-1 Development trend of consumption pattern of phosphate rock in China, 2015-2019

Figure 2.1.1-1 Discharge of sewage sludge in urban of China, 2008-2012

Figure 2.1.1-2 Flow of phosphorus in sewage sludge

Figure 2.1.2-1 Flow of phosphorus in farming manure

Figure 2.1.3-1 Flow of recovered phosphorus in yellow phosphorus industry of China

Figure 2.3-1 Development of phosphorus recovery in China

Figure 3.1.3-1 Apparent consumption volume of phosphate fertilizer in China, 2009-2013

Figure 3.2.1-1 GDP in China, 2009-2013

Figure 3.2.1-2 Output value of chemical industry in China, 2009-2013

Figure 3.3.1-1 Population and demographic change in China, 2004-2013

Figure 3.3.2-1 Urbanization in China, 2004-2013

Figure 3.3.3-1 Feature comparison between phosphorus consumed in industrial and agricultural field in China, 2015

Figure 3.4.2-1 Production technique of slurry method in China

COMPANIES MENTIONED

Guizhou Kailin (Group) Co., Ltd., Yuntianhua Group Co., Ltd., Guizhou Wengfu (Group) Co., Ltd., Hubei Xingfa Chemicals Group Co., Ltd., Hubei Yihua Group Limited Liability Company

I would like to order

Product name: Forecast of Integrated Phosphorus Industry in China

Product link: <https://marketpublishers.com/r/F5BE5E88C4EEN.html>

Price: US\$ 17,280.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/F5BE5E88C4EEN.html>