

Market Research on Paraquat in China

The Eighth Edition

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Kcomber Inc.

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1. Introduction

Production and Market of Paraquat in China is CCM's eighth edition report on Chinese paraquat industry finished in June 2016. This intelligent report attaches importance to the following parts: Production and Market of Paraquat in China is CCM's eighth edition report on Chinese paraquat industry finished in June 2016. This intelligent report attaches importance to the following parts:

- Supply of paraquat (capacity, output and key manufacturers) and demand by volume & value in China in 2010-Q1 2016
- Detailed study of paraquat's upstream industry (pyridine's supply, manufacturers, import, price, technology, etc.)
- Production technology and production cost of paraquat
- Price of paraquat in 2010-Q1 2016 and export of paraquat TK and formulations in 2010-Q1 2016
- Forecast on paraquat's supply & demand in China in 2016-2020
- Key factors influencing development of paraquat in China

2. Approach for the report

2.1 Desk research

Sources of desk research are various including published magazines, journals, governmental statistics, industrial statistics, customs statistics, associated seminars as well as information from the internet. A lot of works have been done to compile and analyze the information obtained. When necessary, checks were made with Chinese market players regarding market information such as production, demand, consumption and competition.

2.2 Telephone interview

The interviewees cover:

- Paraquat manufacturers
- Agricultural experts
- Traders
- Local governments
- Researchers
- Farmers
- Industrial associations

CCM carried out extensive telephone interviews with almost all paraquat TK manufacturers and some formulations manufacturers. From those active manufacturers, potential manufacturers and even manufacturers who have idled or stopped production, CCM sourced and verified the detailed production and market situation as well as players' comments on

paraquat.

In a bid to understand the application of paraquat formulations in China, CCM also made contact with domestic traders, distributors and farmers as well. To directly analyze the export situation of paraquat TK and formulations, many exporters were contacted whenever the verification was needed.

Raw material & intermediate suppliers were also contacted to get the price, supply as well as government policies on raw materials and their impact on paraquat.

2.3 Data processing and presentation

The data collected and compiled are sourced from:

- Published articles from Chinese periodicals, magazines, journals and third-party databases
- Governmental statistics & customs statistics
- Telephone interviews with Chinese manufacturers, traders, government and farmers
- Comments from industrial experts
- CCM's innovative database
- Professional databases from other sources
- Information from the internet

The data from various channels have been combined to make this report as precise and scientific as possible. Throughout the process, a series of internal discussions have been held in order to analyze the data and draw conclusions from it.

3. Executive summary

China's herbicide industry has kept developing stably in recent years, reflected by the sharply increasing output and enriching varieties. As the largest supplier of herbicides in the world, China produced about XXXX tonnes in 2015, retaining its top position in the world.

As one of the key non-selective herbicides in the world, paraquat has witnessed a fast development in the past few years in China, which has been playing an increasingly important role in the world.

✓ **Production**

China is the largest manufacturer of paraquat TK and formulation in the world. As of May 2016, its paraquat TK capacity has reached XXXX t/a. The output of paraquat TK was XXXX tonnes in 2015, up XXXX % YoY, with an operating rate of XXXX %.

The output of China's paraquat formulations (calculated by 200g/L AS, similarly hereinafter) has grown fast from XXXX tonnes in 2007 to XXXX tonnes in 2011 and XXXX tonnes in 2015, mainly attributed to the rapid growth of overseas demand.

✓ **Manufacturer**

There were XXXX active paraquat TK producers in China in Q1 2016. These producers are mainly distributed in Shandong, Jiangsu, Hubei and Anhui provinces, with their output accounting for around XXXX % of the domestic total in 2015.

The top four producers of paraquat TK in China include Nanjing Redsun Co., Ltd. (XXXX t/a), Syngenta Nantong Crop Protection Co., Ltd. (XXXX t/a), Shandong Luba Chemical Co., Ltd. (XXXX t/a) and Hubei Sanonda Co., Ltd. (XXXX t/a).

✓ **Price**

The price of paraquat TK in China stopped rising and started to drop in H2 2014. The annual average ex-works price of paraquat 42% TK reached USD XXXX /t in 2014 but dropped to USD XXXX /t in Q1 2016.

Affected by the anti-dumping investigation into imported pyridine, the price of pyridine in China has been increasing sharply since 2013, reaching USD XXXX /t in 2013 and USD XXXX /t in 2014. But due to the steady domestic supply, the price dropped to USD XXXX /t in Q1 2016.

✓ **Export**

A large proportion of paraquat TK produced in China is exported annually, with the share of about XXXX % in 2015, a historical record high. China's export volume of paraquat TK and formulations were XXXX tonnes (calculated by 42% TK, similarly hereinafter) and XXXX tonnes in 2014, seeing a yearly growth rate of XXXX % and XXXX % respectively.

Tailand was the largest export destination of Chinese paraquat TK in 2015 in terms of export volume, followed by Indonesia and the US. And the total export volume of paraquat TK to these three destinations reached XXXX % of its national total export volume. It was XXXX % in 2013 and XXXX % in 2014 respectively.

China's paraquat formulations are mainly exported to Nigeria, Tailand, Paraguay, Australia and Ghana, with their export volume together accounting for XXXX % of its national total export volume in 2015.

✓ **Technology**

As of May 2016, only cyanide method was adopted in China. According to different solvents used, cyanide methods can be classified into three types of processes, including ammonia-cyanide (AC) process, methanol-cyanide (MC) process and water-cyanide (WC) process.

WC process has been eliminated in China due to its lack of competitiveness compared with the other two processes. Among the XXXX active paraquat TK manufacturers in China, XXXX adopt AC process and XXXX adopts MC process at present. The capacity adopting AC process and MC process were XXXX t/a and XXXX t/a in 2015, respectively.

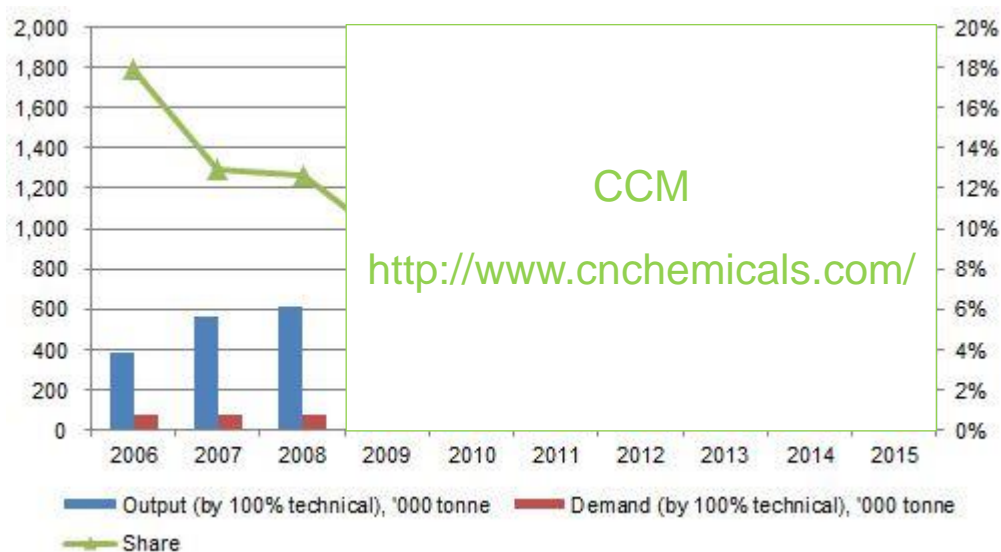
✓ **Demand**

The consumption of paraquat increased stably between 2009 and 2014 with a CAGR of XXXX %, reaching XXXX tonnes (calculated by 42% TK) in 2014. However, affected by the *Notice No. 1745*, the consumption volume decreased to XXXX tonnes in 2015, down XXXX % YoY. The consumption of paraquat increased stably between 2009 and 2014 with a CAGR of XXXX %, reaching XXXX tonnes (calculated by 42% TK) in 2014. However, affected by the *Notice No. 1745*, the consumption volume decreased to XXXX tonnes in 2015, down XXXX % YoY.

In China, paraquat formulations are mainly consumed in orchards and corn fields, with their consumption volume taking up of XXXX % of China's total consumption volume of the products in 2015.

4. What's in this report?

Figure 1.1-3 Output and demand of herbicides in China, 2006-2015



Source: CCM

Table 2.2.1-1 Capacity and output of pyridine manufacturers in China, 2009-2015

No.	Company	Abbreviation	Status, 2015	Capacity, t/a			Output, tonne		
				2015	...	2009	2015	...	2009
1	Nanjing Redsun Co., Ltd.	Nanjing Redsun	Active	xxxx	...	xxxx	xxxx	...	xxxx
...
Total				xxxx		xxxx	xxxx	xxxx	xxxx

Source: CCM

Table 2.2.1-3 Apparent consumption of pyridine in China, 2009-2015, tonne

Year	Output	Export	Import	Apparent consumption
2009	xxxxx	2,116	xxxxx	xxxxx
...
2015	xxxxx	xxxxx	xxxxx	xxxxx

Note: Apparent consumption = Output + Import - Export.

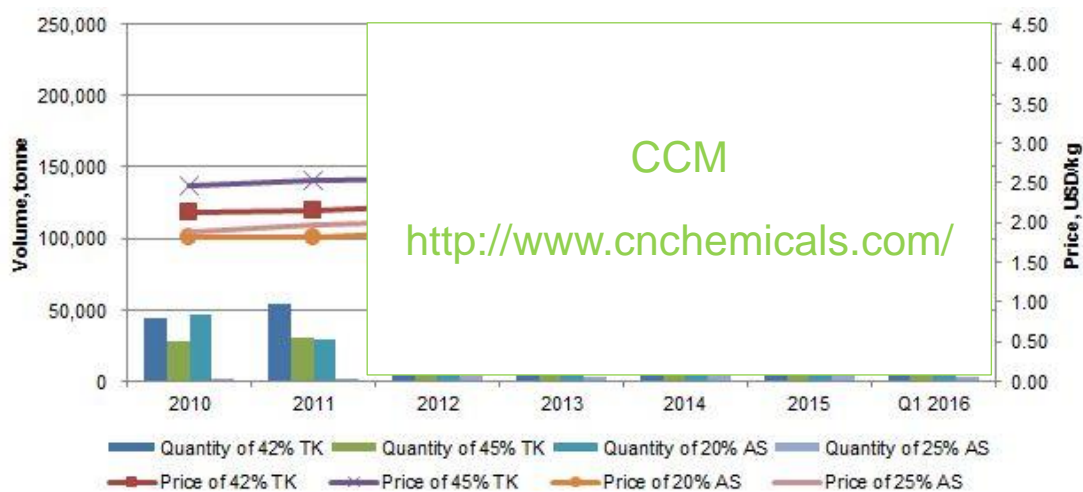
Source: China Customs and CCM

Table 3.4.1.2-1 Capacity and output of paraquat TK manufacturers in China, 2011-H1 2016

No.	Manufacturer	Abbreviation	Status, H1 2016	Capacity (t/a)			Output (tonne)		
				H1 2016	...	2011	H1 2016	...	2011
1	Nanjing Redsun Co., Ltd.	Nanjing Redsun	Active	xxx	...	xxxx	xxxx	...	xxxx
...
Total				xxx	xxx	xxx	xxx	xxx	xxx

Source: CCM

Figure 3.5.2-1 China's exports of paraquat, 2010-Q1 2016



Source: China Customs

Figure 3.6.3.2-2 Actual consumption of paraquat in China by crops, 2015



Source: CCM

If you want more information, please feel free to contact us

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