

Production and Market of Atrazine in China

(The Third Edition)

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1. Executive summary

Atrazine, a triazine herbicide, is widely used worldwide, due to its good herbicidal effect, safety to application crops and economical price. Primarily applied to control annual weeds in corn and sugarcane fields, China consumes over XX tonnes of atrazine products (converted to 97% technical) every year.

China is a key supplier of atrazine in the world. In 2013-2015, China has exported about XX tonnes of atrazine (converted to 97% technical). However, in 2015, China's atrazine industry was not so encouraging, concerning decline in output, price, exports and domestic consumption.

- Production

In 2015, there were mainly XX companies engaged in the production of atrazine technical in China. In 2013-2015, the domestic capacity of atrazine technical has increased from XX t/a to XX t/a, while the output first increased from XX tonnes to XX tonnes and then declined to XX tonnes.

- Import & export

With abundant supply, China imports a small quantity of atrazine. In fact, China's atrazine is export-oriented, with annual export volume of atrazine technical and formulations (converted to 97% technical) accounted for about XX of the domestic annual output since 2008. However, in 2013-2015, the export volume has decreased by over XX from XX tonnes to XX tonnes, and the export value has declined by more than XX.

- Price

In 2013-2015, due to the decreasing price of its raw material, cyanuric chloride, the domestic ex-works price of atrazine XX technical has dropped from USDXX/t to USDXX/t. Similarly, prices of atrazine formulations have also decreased in recent years.

- Demand

In 2013-2015, China's consumption value of major atrazine formulations has declined by XX from USDXX million to USDXX million (by ex-works price level). Meanwhile, the actual domestic consumption volume of atrazine formulations fluctuated, first rose to XX tonnes in 2014, and then went down to about XX tonnes in 2015. In general, the domestic demand for atrazine was weak in 2015, mainly due to the decline in sugarcane planting areas, long residual effect and the appearance of new competing products.

2. Introduction & methodology

Production and Market of Atrazine in China is Kcomber's third edition report on Chinese atrazine industry, finished in July 2016.

Methodology and source

Desk research

Sources of desk research are various including published magazines, journals, government statistics, industrial statistics, customs statistics, associated seminars as well as information from the Internet. A lot of work has 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, and competition.

Telephone interviews

CCM carried out extensive telephone interviews with major participants in the industry chain of the products mentioned in this report throughout upstream to downstream. The interviewees cover:

- Manufacturers
- Traders
- Industrial associations
- Local governments
- Researchers and experts
- Farmers

Data processing and presentation

The data collected and compiled are sourced from:

- Published articles from Chinese periodicals, magazines, and journals
- Government statistics & customs statistics
- Telephone interviews with Chinese manufacturers, traders, government and farmers
- Comments from industrial experts
- CCM's database
- Information from the Internet
- Third-party databases

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 them.

3. What's in this report?

Overview of atrazine industry in China

Brief introduction to pesticide industry in China

Registration

As of 29 Feb., 2016, in China, there were XX registrations of pesticides, including XX for technical, XX for single formulations and XX for mixed formulations.

During Jan. 2013-29 Feb., 2016, the number of valid registrations of pesticides in China has increased by from XX to XX, while the number of registrants has decreased by XX from XX to XX. This indicated that registrants have tripled their registrations of pesticides.

Specifically, the number of registrations of technical has increased from XX to XX, while the number of registrants of technical has decreased from XX to XX. Although the number of registrants has decreased, the proportion of company with technical registrations has increased from XX to XX.

Table 1.1-2 China's output of pesticides (calculated by 100% technical), 2013-2015, '000 tonne

Item	2013	2014	2015	CAGR 2013-2015
Insecticides	XX	XX	XX	XX
...
Total	XX	XX	XX	XX

Note: Others" mainly refers to plant growth regulators, which mainly include three categories, covering plant hormone analogs such as ethephon, seradix, rhodofix, 2,4-Dichlorophenoxyacetic acid sodium salt (2,4-D Na) and 6-(benzylamino) purine; growth retardants such as cycocel, mepiquat chloride and daminozide; and growth inhibitors such as ancymidol.

Source: National Bureau of Statistics of China and CCM

Brief introduction to cyanuric chloride - key raw material of atrazine

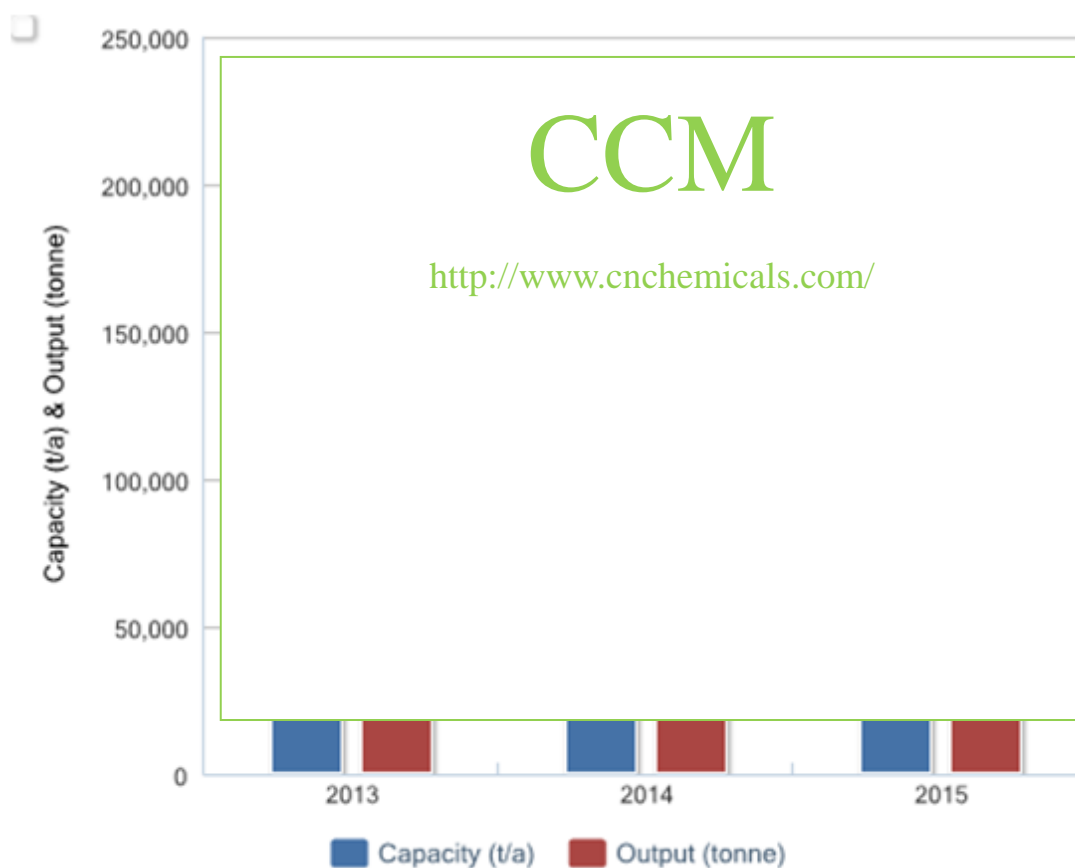
Table 2-1 Producers of cyanuric chloride in China, as of Feb. 2016

No.	Company	Status, Feb. 2016	Capacity, 2015, t/a	Output, 2015, tonne
1	Hebei Lingang Chemical Co., Ltd.	XX	XX	XX
...
Total			XX	XX

Note: XX

Source: CCM

Figure 2-1 Capacity and output of cyanuric chloride in China, 2013-2015



Source: CCM

Supply of atrazine in China, 2013-2015

Summary of atrazine technical production

Key atrazine technical manufacturers

Table 4.2-1 Capacity and output of major atrazine technical producers in China, 2013-2015

No.	Manufacturer	Abbreviation	Location	Status, Feb. 2016	Capacity, t/a			Output, tonne		
					2015	2014	2013	2015	2014	2013
1	Zhejiang Zhongshan Chemical Industry Group Co., Ltd.	XX	XX	XX	XX	XX	XX	XX	XX	XX
...
Total				

Note: XX

Source: CCM

Circulation of atrazine in China

Import and export of atrazine, 2013-2015

In 2013-2015, major specifications of atrazine for export were 97% technical, 80% WP, 90% WDG, 38% SC and 50% SC. Most atrazine were exported to North and South America, Asia and Africa. The US, Israel, Nigeria and Argentina were four major export destinations, accounting for over XX of China's total export volume in 2013-2014. In 2015, the US, Brazil, Argentina and Thailand were four major export destinations accounting for over XX of China's total export volume (converted to 97% technical).

Table 5.1-4 China's export of atrazine by destination, 2015

No.	Destination	38% SC (t)	50% SC (t)	80% WP (t)	90% WDG (t)	97% Tech. (t)	Total volume (converted to 97% technical, t)	Total value (USD)
1	The US	XX	XX	XX	XX	XX	XX	XX
...
Total		XX	XX	XX	XX	XX	XX	XX

Note: Top XX export destinations accounted for over XX% of total export volume (converted to 97% technical).

Source: China Customs & CCM

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