



CCM Data & Business
Intelligence

Atrazine Market and Production in China

The Fifth Edition

January 2019

Researched & Prepared by:

Kcomber Inc.

Copyright by Kcomber Inc.

Any publication, distribution or copying of the content in this report is prohibited.

Contents

Executive summary	1
Introduction & methodology.....	2
1 Overview of atrazine industry in China	4
1.1 Brief introduction to pesticide industry in China	4
1.2 Position of atrazine in Chinese herbicide industry.....	5
2 Registration of atrazine in China.....	6
3 Supply of atrazine in China, 2014–2017	9
3.1 Summary of atrazine technical production	9
3.2 Key atrazine technical manufacturers	10
4 Circulation of atrazine in China.....	12
4.1 Import and export of atrazine, 2015–2017	12
4.2 Price of atrazine in China, 2014–Nov. 2018.....	22
5 Consumption of atrazine in China, 2015–2017	25
6 Competing products of atrazine in China	26
7 Conclusions and trend	27

LIST OF TABLES

Table 1.1-1 China's imports and exports of pesticides and herbicides, 2015–2017
Table 2-1 Annual new registrations of atrazine in China, as of 12 Dec., 2018
Table 2-2 Registrations of atrazine technical in China, as of 12 Dec., 2018
Table 2-3 Registrations of atrazine formulations in China, as of 12 Dec., 2018
Table 3.2-1 Capacity and output of major atrazine technical producers in China, 2014–2017
Table 4.1-1 China's exports of atrazine by month, 2017
Table 4.1-2 China's exports of atrazine by month, 2016
Table 4.1-3 China's exports of atrazine by month, 2015
Table 4.1-4 China's exports of atrazine by destination, 2017
Table 4.1-5 China's exports of atrazine by destination, 2016
Table 4.1-6 China's exports of atrazine by destination, 2015
Table 4.1-7 China's exports of atrazine by exporter, 2017
Table 4.1-8 China's exports of atrazine by exporter, 2016
Table 4.1-9 China's exports of atrazine by exporter, 2015
Table 4.1-10 China's exports of atrazine by manufacturer, 2017
Table 4.1-11 China's exports of atrazine by manufacturer, 2016
Table 4.1-12 China's exports of atrazine by manufacturer, 2015
Table 5-1 Apparent consumption of atrazine (converted to 97% technical) in China, 2015–2017, tonne
Table 5-2 Actual consumption volume and market value of major atrazine formulations in China, 2015–2017
Table 6-1 Comparison among atrazine and its major substitutes in China, 2017

LIST OF FIGURES

Figure 1.1-1 Output and demand of herbicides in China, 2008–2017
Figure 1.2-1 Output share of atrazine in herbicide industry in China, 2014–2017
Figure 3.1-1 Capacity and output of atrazine technical in China, 2014–2017
Figure 3.1-2 Distribution of capacity of atrazine technical in China by region, 2017
Figure 3.1-3 Distribution of output of atrazine technical in China by region, 2017
Figure 4.2-1 Annual ex-works prices of atrazine technical and cyanuric chloride in China, 2013–2017
Figure 4.2-2 Monthly ex-works price of cyanuric chloride (>99.3%) in China, Jan. 2015–Nov. 2018
Figure 4.2-3 Monthly ex-works price of 97% atrazine technical in China, Jan. 2015–Nov. 2018
Figure 4.2-4 Monthly ex-works price of atrazine 50% SC in China, Jan. 2015–Nov. 2018
Figure 5-1 Actual consumption structure of atrazine formulations (converted to 97% technical) by crop in China, 2015–2017, tonne

1. Introduction

Atrazine, a triazine herbicide, is widely used worldwide, due to its good herbicidal effect, safety to crops and economical price. China's atrazine is export-oriented, with annual export volume of atrazine technical and formulations (converted to 97% technical) accounts for large share of the domestic annual output every year. In China, most of the atrazine (converted to 97% technical) was exported, and the rest was used to produce atrazine formulations, mainly including 38% SC, 50% SC, 80% WP and 90% WDG for domestic applications in 2015–2017.

During 2014–2015, due to the decreasing price of its raw material, cyanuric chloride, the domestic ex-works price of 97% atrazine technical has dropped. Similarly, prices of atrazine formulations also suffered decrease at the same time. Since Dec. 2016, the domestic ex-works price of 97% atrazine technical rebounded. In 2017, there was a slight decrease in cyanuric chloride price compared with that in 2016. Nevertheless, the ex-works price of atrazine technical still enjoyed uptrend. Then what made this happen?

The ex-works price of atrazine technical in China kept increasing in the beginning of 2018 and reached USD3,727.5/t in Feb., the highest during 2015–Nov. 2018. What were the driving factors behind the increasing price? Behind those factors, there may be some opportunities.

In order to help industry players find more opportunities in China's atrazine market, CCM has carried out comprehensive analysis on atrazine industry, including registration, production, producers, export, consumption, and price change, as well as its competing products in China. This report can guide investments and business movements for the players who pay close attention to atrazine industry.

This is CCM's fifth edition report on China's atrazine industry and it attaches importance to the following parts:

- ✓ Position of atrazine in Chinese herbicide industry, 2014–2017
- ✓ Registration of atrazine in China, as of 12 Dec. 2018
- ✓ Capacity and output of atrazine technical in China, 2014–2017
- ✓ Capacity and output of major atrazine technical producers in China, 2014–2017
- ✓ Export analysis of atrazine products in China, 2015–2017
- ✓ Price of atrazine in China, 2014–Nov. 2018
- ✓ Apparent consumption of atrazine (converted to 97% technical) in China, 2015–2017
- ✓ Actual consumption volume and market value of major atrazine formulations in China, 2015–2017
- ✓ Comparison among atrazine and its major substitutes in China, 2017

2. Approach for this report

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.

Definition and glossary

In this report, atrazine technical refers to atrazine 97% technical (TC); atrazine formulations refer to atrazine 38% SC, atrazine 48% WP, atrazine 50% SC, atrazine 80% WP and atrazine 90% WDG; when "atrazine" is mentioned, it includes both atrazine technical and atrazine formulations.

Apparent consumption equals production + import - export, which is one of the factors reflecting demand. Assuming the inventory stays the same every year, the apparent consumption also equals to the actual consumption.

Unit

USD: US dollar, currency unit in the US

RMB: currency unit in China, also named Renminbi

Tonne: ton equals to metric ton in this report

/t: per tonne

t/a: tonne per year, tonne/annual

Table Main abbreviations and their full names in the report

Abbreviation	Full name
AI	Active ingredient
ICAMA	The Institute for the Control of Agrochemicals, Ministry of Agriculture
SC	Suspension Concentrate
SE	Suspension Emulsion
WDG	Water Dispersible Granule
WP	Wettable Powder
AS	Aqueous Solution
EC	Emulsifiable Concentrate
OD	Oil Dispersion
CAGR	Compound Annual Growth Rate

Table USD/CNY exchange rate, 2014–2018

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
2014	6.1043	6.1128	6.1358	6.1553	6.1636	6.1557	6.1569	6.1606	6.1528	6.1441	6.1432	6.1238	6.1428
2015	6.1272	6.1339	6.1507	6.1302	6.1143	6.1161	6.1167	6.3056	6.3691	6.3486	6.3666	6.4476	6.2288
2016	6.5527	6.5311	6.5064	6.4762	6.5315	6.5874	6.6774	6.6474	6.6715	6.7442	6.8375	6.9182	6.6425
2017	6.8918	6.8713	6.8932	6.8845	6.8827	6.8019	6.7772	6.7148	6.5909	6.6493	6.6300	6.6067	6.7662
2018	6.5079	6.3045	6.3352	6.2764	6.3670	6.4078	6.6157	6.8293	6.8347	6.8957	6.9670	6.9431	6.6070

Source: The People's Bank of China

3. Executive summary

Atrazine, a triazine herbicide, is widely used worldwide, due to its good herbicidal effect, safety to crops and economical price. China is not only a high consumption country of atrazine at home, but also a key supplier at abroad.

- Production

In 2014–2017, the domestic capacity of atrazine technical increased from XXX t/a to XXX t/a; moreover, the output increased from XXX tonnes to XXX tonnes.

- Import & export

China's atrazine is export-oriented, with annual export volume of atrazine technical and formulations (converted to 97% technical) accounts for large share of the domestic annual output every year. In 2017, the export volume of atrazine technical and formulations (converted to 97% technical) in China was XXX tonnes, with growth rate of XXX%, compared with that in 2016. And the US was the largest importer of China's atrazine products in the world in 2017.

- Price

In 2017, there was a slight decrease in cyanuric chloride price compared with that in 2016. Nevertheless, the ex-works price of atrazine technical still enjoyed uptrend. The increasing overseas demand for atrazine products in China was responsible for the increase of atrazine price.

- Consumption

Atrazine is primarily applied to control annual weeds in corn and sugarcane fields. In China, most of the atrazine (converted to 97% technical) was exported, and the rest was used to produce atrazine formulations, mainly including 38% SC, 50% SC, 80% WP and 90% WDG for domestic applications in 2015–2017. The actual domestic consumption volume of atrazine formulations decreased from XXX tonnes in 2015 to XXX tonnes in 2017. The total actual domestic consumption volume of atrazine formulations (converted to 97% technical) was decreased from XXX tonnes in 2015 to XXX tonnes in 2017, with a CAGR of XXX%.

4. What's in this report?

Note: Key data/information in this sample page is hidden, while in the report it is not.

...

1 Overview of atrazine industry in China

1.1 Brief introduction to pesticide industry in China

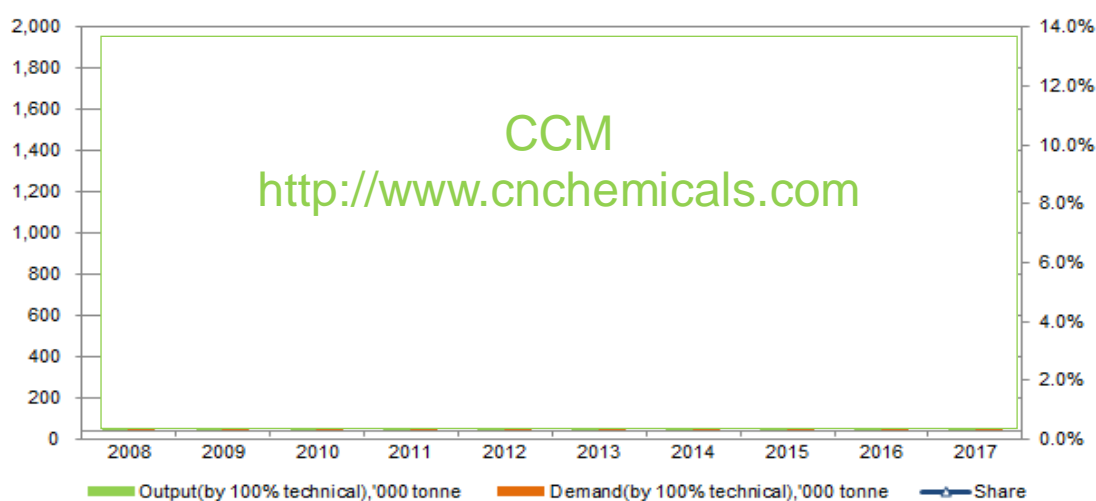
- Supply and demand

China's herbicide industry has developed rapidly in recent years, which is reflected by sharply increasing output and the growing number of varieties available. China is now the major global herbicide supplier. Its herbicide output (calculated by 100% technical) reached XXX tonnes in 2017, retaining its top position in the world.

As a category of pesticides, herbicides have been playing an increasingly important role in the prevention & control of weeds. The structure of pesticide products in China used to be so imbalanced that the output of insecticides accounted for an extremely large proportion of the whole market, while proportions of other types of pesticides were quite small....

...

Figure 1.1-1 Output and demand of herbicides in China, 2008–2017



Note: Share=Demand/Output

Source: The National Bureau of Statistics of China (NBS) and CCM

- Import and export

Table 1.1-1 China's imports and exports of pesticides, 2015–2017

Year	Pesticides				Herbicides				Share			
	Import		Export		Import		Export		Import		Export	
	Volume, tonne	Value, million USD	Volume, tonne	Value, million USD	Volume, tonne	Value, million USD	Volume, tonne	Value, million USD	Volume	Value	Volume	Value
2015	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2016	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2017	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

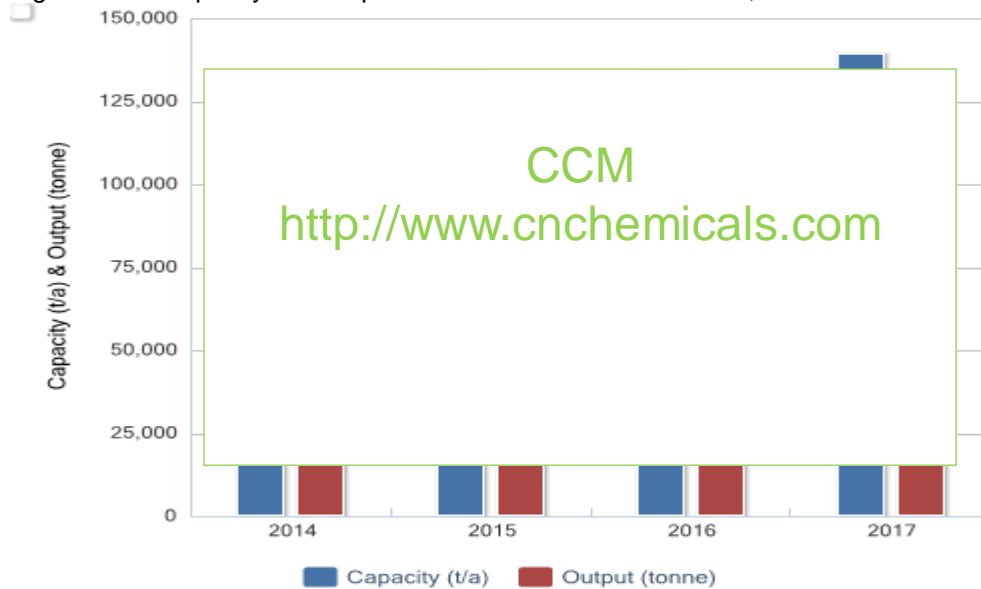
Source: China Customs

3 Supply of atrazine in China, 2014–2017

3.1 Summary of atrazine technical production

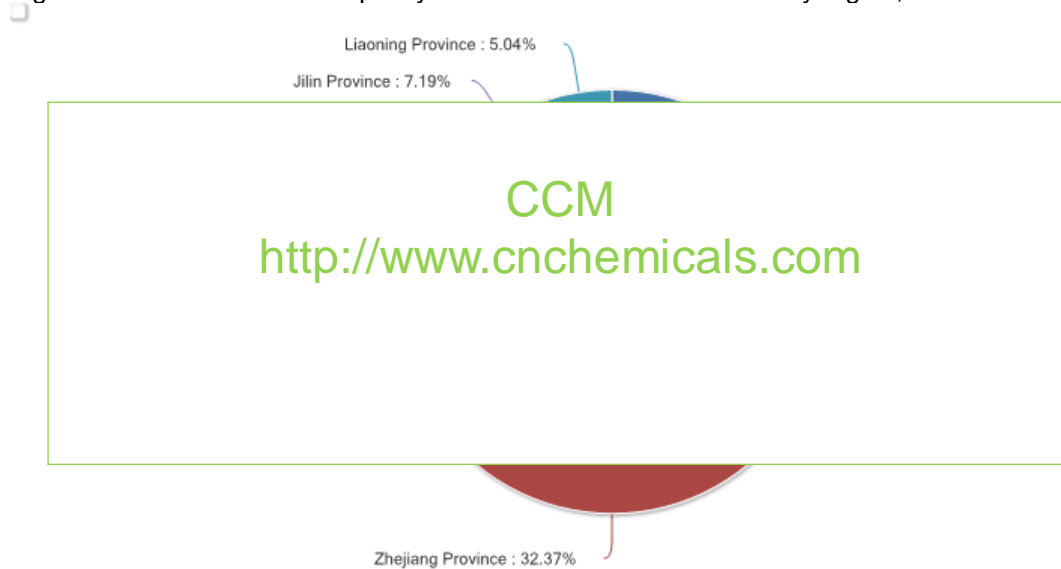
...

Figure 3.1-1 Capacity and output of atrazine technical in China, 2014–2017



Source: CCM

Figure 3.1-2 Distribution of capacity of atrazine technical in China by region, 2017



Source: CCM

...

3.2 Key atrazine technical manufacturers

...

Table 3.2-1 Capacity and output of major atrazine technical producers in China, 2014–2017

No.	Producer	Abbreviation	Location	Status , 2017	2014		2015		2016		2017	
					Capacity, t/a	Output, tonne	Capacity, t/a	Output, tonne	Capacity, t/a	Output, tonne	Capacity, t/a	Output, tonne
1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
3	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
4	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
5	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
6	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
7	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
8	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
9	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
10	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Total					XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

Note: Zhejiang Zhongshan Chemical Industry Group Co., Ltd. has two atrazine technical production sites, one in Zhejiang Province (20,000 t/a) and the other in Anhui Province (10,000 t/a).
Source: CCM

...

4 Circulation of atrazine in China

4.1 Import and export of atrazine, 2013–2016

By month

...

Table 4.1-1 China's exports of atrazine by month, 2017

Month	38% SC		48% WP		50% SC		80% WP		90% WDG		97% Tech.		Total volume (converted to 97% technical, t)	Total value (USD)
	Volume (t)	Price (USD/kg)	Volume (t)	Price (USD/kg)	Volume (t)	Price (USD/kg)	Volume (t)	Price (USD/kg)	Volume (t)	Price (USD/kg)	Volume (t)	Price (USD/kg)		
January	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
February	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
March	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
April	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
May	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
June	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
July	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
August	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
September	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
October	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
November	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
December	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Total	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

Source: China Customs & CCM

By destination

...

Table 4.1-5 China's exports of atrazine by destination, 2017

No.	Destination	38% SC (t)	48% WP (t)	50% SC (t)	80% WP (t)	90% WDG (t)	97% Tech. (t)	Total volume (converted to 97% technical, t)	Total value (USD)
1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
3	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
4	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
5	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
...	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
13	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
14	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
...	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Total		XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

Note: Top 14 export destinations accounted for over 90% of total export volume (converted to 97% technical).

Source: China Customs & CCM

By exporter

...

Table 4.1-9 China's exports of atrazine by exporter, 2017

No.	Exporter	38% SC (t)	48% WP (t)	50% SC (t)	80% WP (t)	90% WDG (t)	97% Tech. (t)	Total volume (converted to 97% technical, t)	Total value (USD)
1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
3	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
4	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
5	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
6	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
7	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
8	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
9	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
10	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
11	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
12	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
13	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
14	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
...	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Total		XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

Note: The top 14 exporters accounted for over 90% of total export volume (converted to 97% technical).

Source: China Customs & CCM

By Manufacturer

Table 4.1-13 China's exports of atrazine by manufacturer, 2017

No.	Manufacturer	38% SC (t)	48% WP (t)	50% SC (t)	80% WP (t)	90% WDG (t)	97% Tech. (t)	Total volume (converted to 97% technical, t)	Total value (USD)
1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
3	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
4	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
5	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
6	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
7	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
...	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Total		XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

Note: Top 7 manufacturers accounted for over 95% of total export volume (converted to 97% technical).

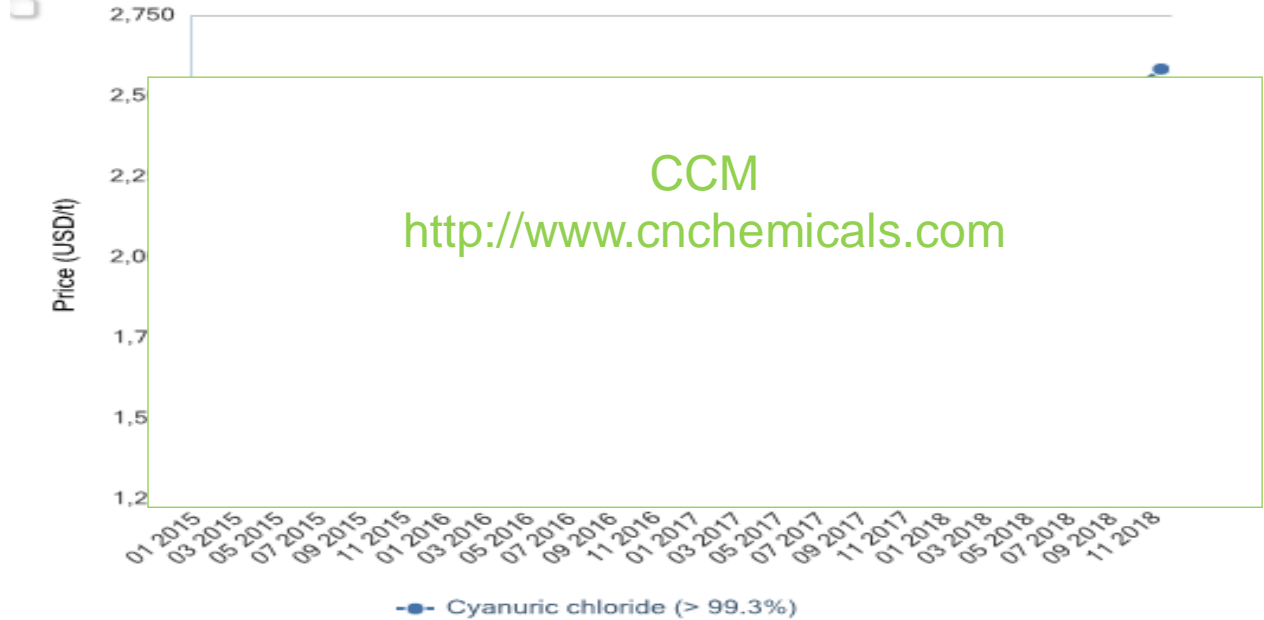
Source: China Customs & CCM



4.2 Price of atrazine in China, 2014–Nov. 2018

...

Figure 4.2-2 Monthly ex-works price of atrazine 97% technical in China, Jan. 2014–Nov. 2018



Source: CCM

Figure 4.2-3 Monthly ex-works price of 97% atrazine technical in China, Jan. 2015–Nov. 2018



Source: CCM



5 Consumption of atrazine in China, 2015–2017

...

Table 5-1 Apparent consumption of atrazine (converted to 97% technical) in China, 2015–2017, tonne

Year	Output	Export	Import	Apparent consumption
2015	XXX	XXX	XXX	XXX
2016	XXX	XXX	XXX	XXX
2017	XXX	XXX	XXX	XXX

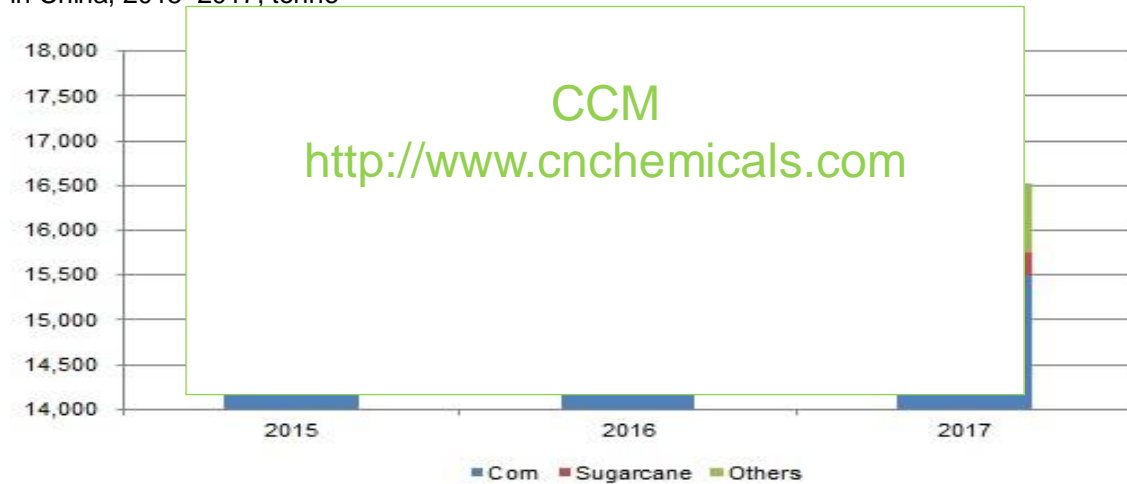
Note: Apparent consumption volume = Output - Export + Import
Source: CCM

Table 5-2 Actual consumption volume and market value of major atrazine formulations in China, 2015–2017

Year	Consumption volume, tonne					Market value (by ex-works price level), million USD				
	38% SC	50% SC	80% WP	90% WDG	Total	38% SC	50% SC	80% WP	90% WDG	Total
2015	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2016	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2017	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

Source: CCM

Figure 5-1 Actual consumption structure of atrazine formulations (converted to 97% technical) by crop in China, 2015–2017, tonne



Source: CCM

...

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

Tel: +86-20-37616606 Fax: +86-20-37616968

Email: econtact@cnchemicals.com