

Survey of Acetochlor in China

The Fourth Edition

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1. Introduction

Acetochlor is an important selective herbicide in China. This report presents an overview of acetochlor's supply and demand in China, as well as a forecast on the product's future trend.

There's a decline in the production of acetochlor technical in China from 2014 to 2015. But is there any change in 2016 and H1 2017? What's the reason for the change? It is noteworthy that acetochlor was officially listed in the *Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade*, in the 13th Meeting of the Chemical Review Committee (CRC-13) of the Rotterdam Convention held at the end of Oct. 2017. How will the industry go in the coming years?

This report will illustrate the details for readers through the following aspects:

- Product registration, as of 9 Nov., 2017
- Production situation (technology, capacity, output and key producers), 2014–H1 2017
- Prices of technical of acetochlor, 2011–H1 2017
- Export analysis, 2014–H1 2017
- Domestic consumption, 2014–2016
- Forecast on output and demand, 2017–2021

2. Approach for this report

• Methodology

This report is drafted by diverse methods as follows:

Desk research

The sources of desk research are various, including published journals, government statistics, industrial statistics, customs statistics, as well as information from the Internet. Information obtained has been compiled and analysed. When necessary, checks will be made with players in China's acetochlor industry regarding market information such as key producers, production situation, and trend of product price.

Telephone interview

Extensive telephone interviews have been carried out in order to grasp the actual market situation of acetochlor in China.

Interviewees cover:

- Producers
- Traders

Internet search

CCM contacted with the players in the acetochlor industry through B2B websites and software.

• Data processing and presentation

The data collected and compiled were sourced from:

- Published articles from periodicals, magazines and journals
- Statistics from local governments and international institutes
- Telephone interviews with domestic suppliers, traders, industrial experts

- Third-party data providers
- Information from the Internet

Data obtained from various sources have been combined and cross-checked to make this report as precise and scientific as possible. Throughout the process, a series of internal discussions were made in order to analyse the data and have conclusions drawn.

- **Abbreviation**

AI: active ingredient

EC: emulsifiable concentrate

EW: emulsion oil in water

OD: oil dispersion

SC: suspension concentrate

TC: technical material

WP: wettable powder

CAGR: compound annual growth rate

CCPIA: the China Crop Protection Industry Association

ICAMA: the Institute for the Control of Agrochemicals, Ministry of Agriculture of the People's Republic of China

- **Unit**

- Tonne: equals to metric ton in this report

- /t: per tonne

- /a: tonne/annum, tonne per year

- USD: US dollar, currency unit in the US

- RMB: currency unit in China, also named yuan

Table USD/CNY exchange rates, 2013–Oct. 2017

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
2013	6.2787	6.2842	6.2743	6.2471	6.1970	6.1718	6.1725	6.1708	6.1588	6.1393	6.1372	6.1160	6.1920
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	-	-	-

Source: The People's Bank of China

3. Executive summary

Acetochlor accounts for a large market share among selective herbicides applied in China. It can be used for pre-emergent control of annual weeds and some broadleaf weeds in the fields of corn, cotton, peanut, soybean, etc.

According to the Institute for the Control of Agrochemicals, Ministry of Agriculture of the People's Republic of China (ICAMA), as of 9 Nov., 2017, there have been XXX registrations of acetochlor in China, including XXX for technical, XXX for single formulations and XXX for mixed formulations.

The acetochlor industry has been suffering a serious oversupply in China. During 2014 and 2016, the annual average operating rate of acetochlor producers was as low as in a range of XXX. Some producers have idled their production facilities in this period; some have even stopped the production. In 2016, the national total output of acetochlor technical (calculated by 92% technical) was XXX tonnes with a year-on-year growth rate of XXX mainly because of the increasing demand for acetochlor from overseas market in the same year.

The total China's export volume of acetochlor showed a downtrend in 2013–2015, at a CAGR of XXX. But in 2016, the export volume of acetochlor increased to XXX tonnes, with a year-on-year growth rate of XXX.

With regard to export destinations, XXX, XXX, XXX, XXX and XXX were the top 5 destinations of acetochlor exported from China in 2016.

There haven't been large changes in the actual consumption of acetochlor formulations (calculated by 92% technical) in China, which ranged from XXX tonnes to XXX tonnes from 2014–2016. During the same period, the market value by consumption at ex-works level was generally decreasing slightly, being XXX million in 2016.

In the domestic market, corn, soybean and peanut are the top three crops in terms of consumption of acetochlor formulations.

4. What's in this report?

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

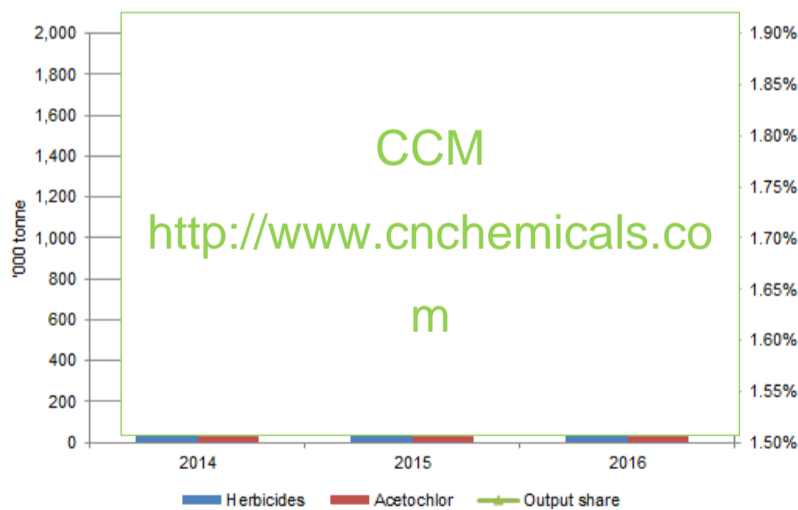
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1.2 Position of acetochlor in China's herbicide industry

Acetochlor plays an important role in China's farming as a herbicide. It can be used for pre-emergent control of annual weeds and some broadleaf weeds in the fields of corn, cotton, peanut, soybean, etc.

In 2016, the technical output of acetochlor accounted for 1.87% of herbicides' total in China. (All data are calculated by 100% AI.)

Figure 1.2-1 Output volume and output share of acetochlor in herbicides industry in China, 2014–2016



Note: The data above are calculated by 100% AI.

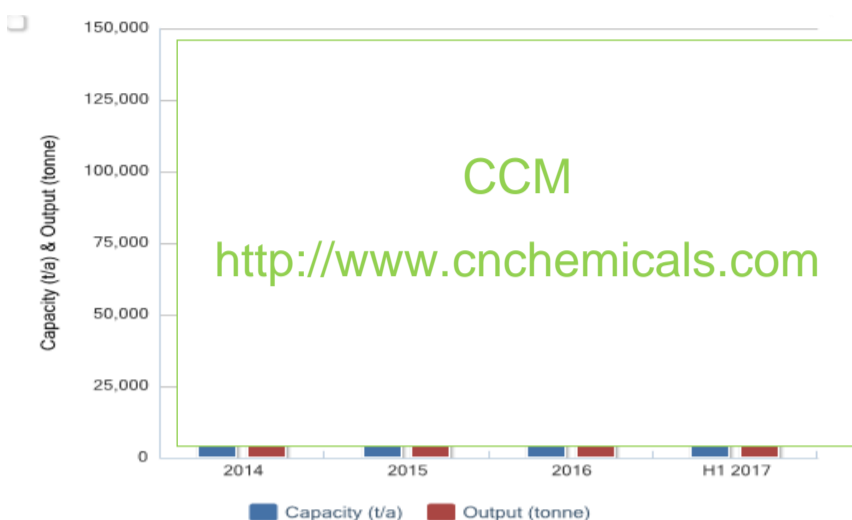
Source: The National Bureau of Statistics of China and CCM

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2 Supply

2.3 Production, 2014–H1 2017

Figure 2.3-1 Capacity and output of acetochlor technical (calculated by 92% technical) in China, 2014–H1 2017



Source: CCM

Table 2.3-1 Basic information on main acetochlor technical producers in China

No.	Producer	Abbreviation	Location	Status in H1 2017
1	XXX	XXX	XXX	XXX
2	XXX	XXX	XXX	XXX
3	XXX	XXX	XXX	XXX
...	XXX	XXX	XXX	XXX
20	XXX	XXX	XXX	XXX

Note: The former name of Zhongnongfa Agrochemical (Henan) Co., Ltd. is Henan Yingtai Chemical Industry Co., Ltd.

Source: CCM

Table 2.3-2 Capacity and output of main acetochlor technical producers in China, 2014–H1 2017

No.	Producer	2014		2015		2016		H1 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
2	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
3	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
...	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
20	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

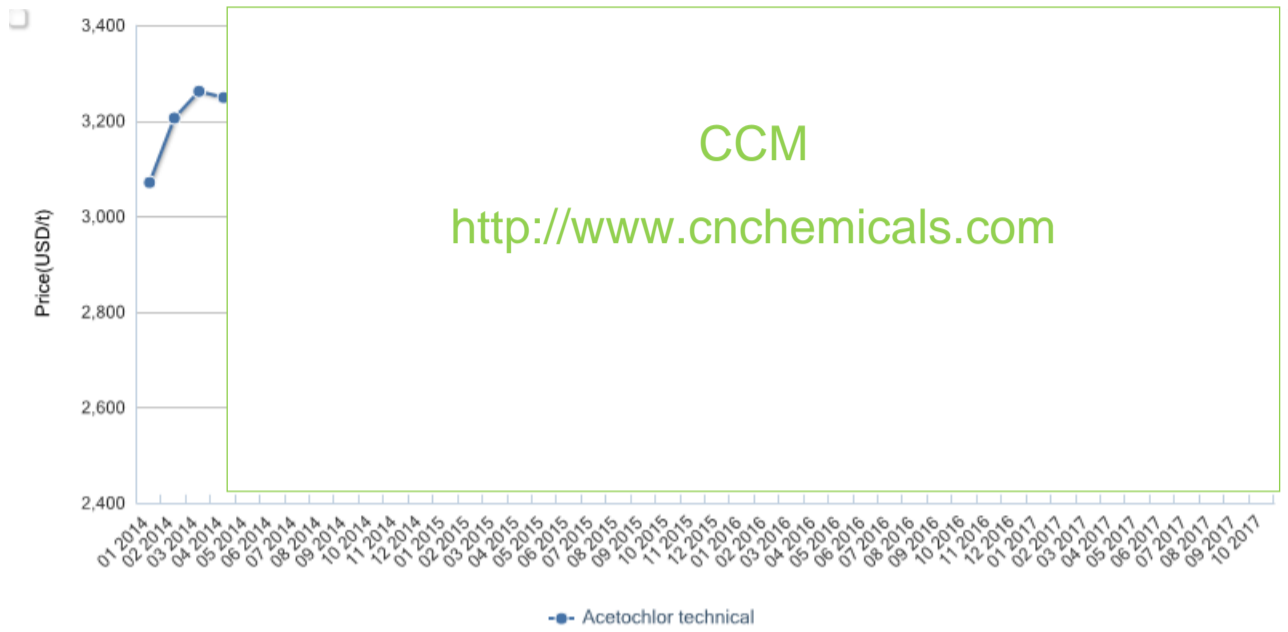
Source: CCM

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3 Circulation

3.1 Prices of acetochlor technical, 2011–H1 2017

Figure 3.1-2 Monthly ex-works price of 92% acetochlor technical in China, Jan. 2014–Oct. 2017



Source: CCM

3.2 Export, 2014–2016

3.2.1 By month

Table 3.2.1-1 China's exports of acetochlor technical and formulations by month, 2016

Month	Acetochlor 20% WP		Acetochlor 50% EC		Acetochlor 90% EC		Acetochlor 990g/L EC		92% Acetochlor technical		93% Acetochlor technical		94% Acetochlor technical		95% Acetochlor technical		97% Acetochlor technical	
	Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg
1	XXX	XXX	XXX	XXX	XXX	XXX	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	XXX	XXX	XXX	XXX	XXX	XXX
3	XXX	XXX	XXX	XXX	XXX	XXX	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	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
6	XXX	XXX	XXX	XXX	XXX	XXX	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	XXX	XXX	XXX	XXX	XXX	XXX
8	XXX	XXX	XXX	XXX	XXX	XXX	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	XXX	XXX	XXX	XXX	XXX	XXX
10	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
11	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
12	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	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

Source: China Customs & CCM

3.2.2 By destination

Table 3.2.2-1 China's exports of acetochlor technical and formulations by destination, 2016

No.	Destination	Acetochlor 20% WP		Acetochlor 50% EC		Acetochlor 90% EC		Acetochlor 990g/L EC		92% Acetochlor technical		93% Acetochlor technical		94% Acetochlor technical		95% Acetochlor technical		97% Acetochlor technical		Total quantity, tonne	
		Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg		
1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	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	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	
3	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	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	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	XXX	XXX	
...	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	
30	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	
...	XXX	XXX	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	/	XXX	/	XXX	XXX

Source: China Customs & CCM

3.2.3 By exporter

Table 3.2.3-1 China's exports of acetochlor technical and formulations by exporter, 2016

No.	Exporter	Acetochlor 20% WP		Acetochlor 50% EC		Acetochlor 90% EC		Acetochlor 990g/L EC		92% Acetochlor technical		93% Acetochlor technical		94% Acetochlor technical		95% Acetochlor technical		97% Acetochlor technical		Total quantity, tonne
		Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg	Quantity, tonne	Price, USD/kg	
1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	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	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
...	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	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	XXX	XXX
15	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
	Others	XXX	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	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

Source: China Customs & CCM

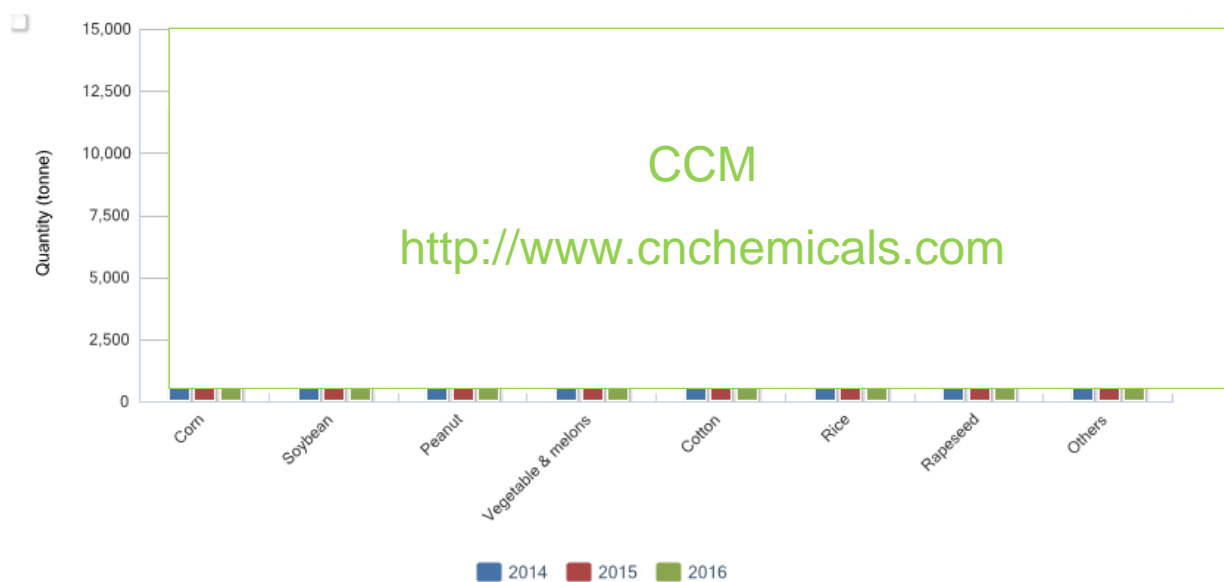
4 Consumption, 2014–2016

Table 4-2 Actual consumption of acetochlor in China by type of formulations, 2014–2016

Year	Consumption volume, tonne					Market value, million USD			
	90% EC	50% EC	Others	Total	Total (calculated by 92% Tech)	90% EC	50% EC	Others	Total
2014	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2015	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2016	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

Source: CCM

Figure 4-1 Actual consumption of acetochlor formulations (calculated by 92% technical) in China by crop, 2014–2016



Source: CCM

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