

Survey of Acetochlor in China

The Eighth Edition

Jan. 2022

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Kcomber Inc.

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Executive summary

Acetochlor is mainly used to control weeds in the fields of corn, soybean, peanut and other crops in China. As of 11 Oct., 2021, the number of registrations of acetochlor in China increased to 673. The number for acetochlor technical maintained at 30. As to acetochlor formulations, there were 248 for single formulations and 395 for mixed formulations, changing from 255 single formulations and 385 mixed formulations in Jan. 2021.

- Production

In recent years, acetochlor industry in China has experienced overcapacity. In 2021, domestic capacity of acetochlor technical was 87,000 t/a; the output was some 26,700 tonnes, down some 6% year on year. It is unlikely to see a capacity expansion of acetochlor technical in China in the next five years (2022–2026); the capacity may even go down further in the long run.

- Export

According to the export data from Tranalysis, in 2020, China exported 7,267 tonnes of acetochlor products. Major acetochlor products for export in 2020 were 50% EC, 90% EC, 92% TC, 93% TC, 95% TC and 97% TC.

- Consumption

In 2021, the apparent consumption and actual consumption of acetochlor technical (calculated by 100% AI) kept steady compared with that of 2020. The apparent consumption was about 16,364 tonnes; the actual consumption of acetochlor technical was about 16,413 tonnes. Corn, soybean and vegetables were the three major end users of acetochlor in 2021, accounting for about 54%, 16%, 7% respectively. Currently, 50% EC and 90% EC are the major types of acetochlor single formulations applied in China; mixed formulations of acetochlor with bensulfuron-methyl, prometryn or 2,4-D butylate are also popular in domestic market.

It is estimated that the supply and demand of acetochlor technical in China will go down after some growth in the short term. Domestic demand for acetochlor technical may decrease after 2024 for reduced unit consumption of pesticides on crops and competition from its substitutes.

Methodology and source

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, 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

SE: aqueous suspo-emulsion

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

t/a: tonne/annum, tonne per year

USD: US dollar, currency unit in the US

RMB: currency unit in China, also named yuan

Table null-1 USD/CNY exchange rate, Jan. 2017–Dec. 2021

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly average
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
2019	6.8482	6.7081	6.6957	6.7193	6.7344	6.8896	6.8716	6.8938	7.0883	7.0726	7.0437	7.0262	6.8826
2020	6.9614	6.9249	6.9811	7.0771	7.0690	7.1315	7.0710	6.9980	6.8498	6.7796	6.7050	6.5921	6.9284
2021	6.5408	6.4623	6.4754	6.5584	6.4895	6.3572	6.4709	6.4660	6.4680	6.4604	6.4192	6.3693	6.4615

Source: The People's Bank of China

1 Industry overview

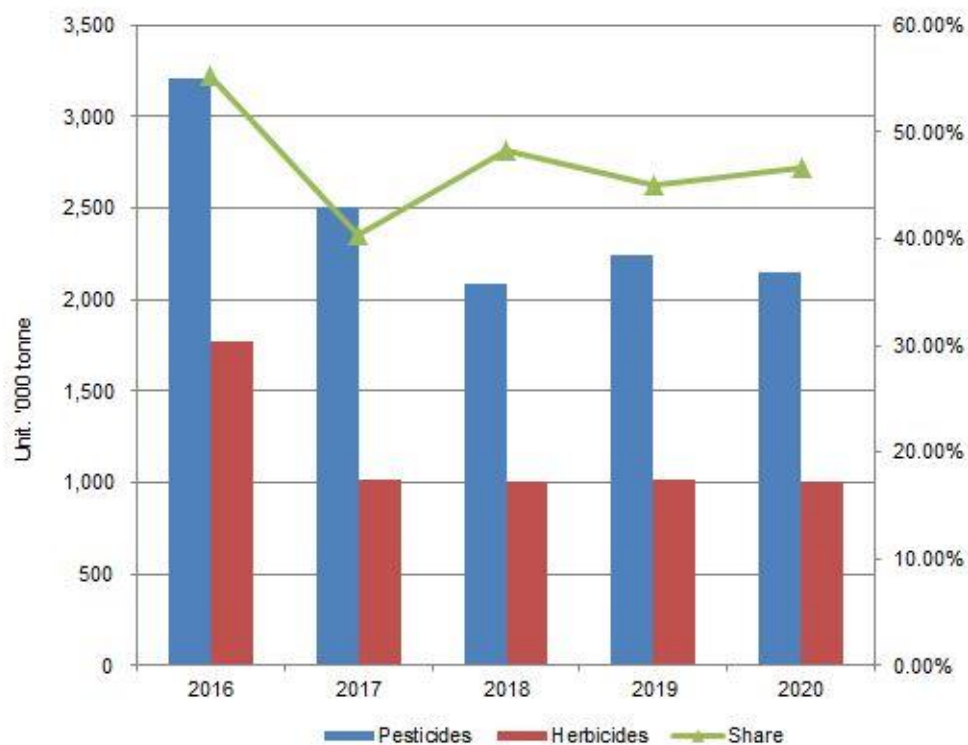
1.1 Brief introduction to pesticide industry in China

China is now the world's largest exporter of pesticides, and herbicides is an important pesticide category. In recent years, against the background of increasing labor cost and a pursuit of higher efficiency, herbicides have been widely used in the production of agricultural products, which can greatly reduce labor cost and other economic costs. However, the abuse of herbicides can easily lead to destruction of ecological environment and the soil. Therefore, with multiple environmental protection policies rolled out, the output of herbicides in China showed a general downward trend in recent years. In 2020, China's herbicide output (by 100% technical) was 1,004,000 tonnes, down 0.69% year on year.

In terms of export of pesticides from China, in 2020, altogether 2,514,000 tonnes of pesticides were exported at a total value of USD7,624 million. Specifically, 1,236,000 tonnes of herbicides were exported at a total value of USD3,069 million, which increased by 24.60% and 13.04% year on year respectively. However, the export volume of herbicides took up less than 50% of the total export volume this year, down from over 65% in 2019.

Along with structural adjustment of pesticide industry and development of products with higher added value and efficacy, structure of pesticide output in China has improved. Notably, China's output proportion of herbicides showed a general uptrend in 2017–2020. In 2020, China's output proportion of herbicides (calculated by 100% technical) was around 46.74%, herbicides still being the largest pesticide category.

Figure 1.1-1 Output and share of herbicides in China's pesticide industry, 2016–2020



Note: All the volumes are calculated by 100% technical.
Source: National Bureau of Statistics of China

Table 1.1-1 China's imports and exports of pesticides and herbicides, 2017–2020

Year	Pesticides				Herbicides				Share of herbicides/pesticides			
	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
2017	83,000	680	1,632,000	6,760	22,000	129	1,135,000	3,679	26.51%	18.97%	69.55%	54.42%
2018	79,000	489	1,405,400	8,073	23,000	149	989,900	4,355	29.11%	30.47%	70.44%	53.95%
2019	90,000	762	1,468,000	4,860	14,000	100	992,000	2,715	15.56%	13.12%	67.57%	55.86%
2020	110,000	911	2,514,000	7,624	14,000	78	1,236,000	3,069	12.73%	8.56%	49.16%	40.25%

Source: National Bureau of Statistics of China

1.2 Position of acetochlor in China's herbicide industry

As a herbicide, acetochlor plays an important role in China's farming. It can be used for pre-emergent control of annual weeds and some broadleaf weeds in the fields of corn, cotton, peanut, soybean, etc. The output share of acetochlor in the total herbicide output in China shrank in 2018–2019, but the share expanded a little in 2020, against a smaller herbicide output.

Table 1.2-1 Output volume and output share of acetochlor in herbicides industry in China, 2017–2020

Year	Herbicide output, tonne	Acetochlor output, tonne	Share
2017	1,012,000	32,844	3.25%
2018	1,006,000	27,968	2.78%
2019	1,011,000	24,748	2.45%
2020	1,004,000	26,220	2.61%

Note: The output is based on contents of 100%.

Source: CCM

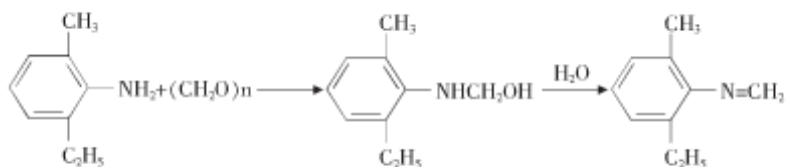
2 Supply

2.1 Production technology

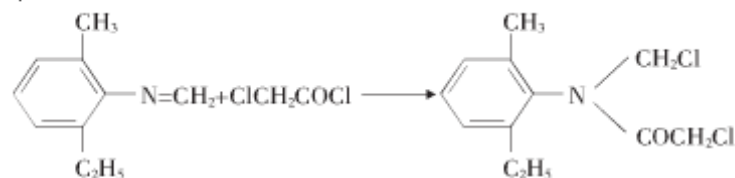
Currently, there are two main routes for producing acetochlor technical in China, namely the methylene route and the ether route. The former, which is listed and supported in the *Plan for Promotion of Cleaner Production Technology in the Pesticide Industry* issued by the Ministry of Industry and Information Technology of the People's Republic of China, is adopted by an increasing number of producers. The latter one is listed as a technology with serious pollution and high environmental risks.

Figure 2.1-1 Methylene route for producing acetochlor technical in China

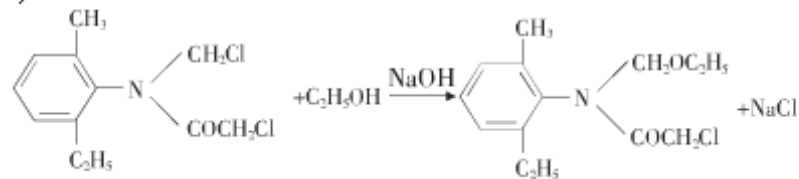
1) *Methylene aniline generation*



2) *Addition reaction*



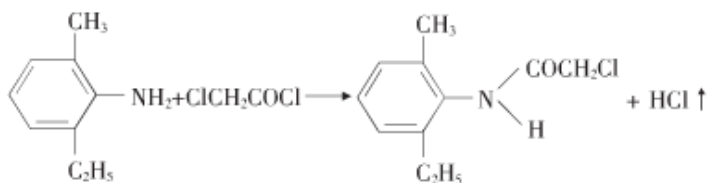
3) *Condensation reaction*



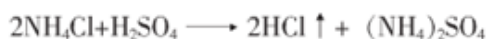
Source: Standard for Discharge of Industrial Water Pollution in Production of Amide Pesticides

Figure 2.1-2 Ether route for producing acetochlor technical in China

1) Acylation



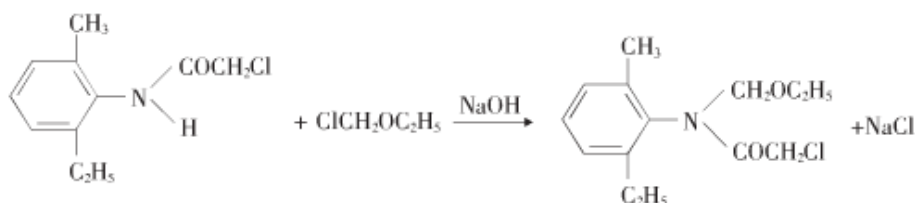
2) Hydrochloric acid gas generation



3) Etherification



4) Condensation reaction



Source: Standard for Discharge of Industrial Water Pollution in Production of Amide Pesticides

Table 2.1-1 Comparison on quality of acetochlor technical between the two production routes adopted in China

Item	Methylene route	Ether route
Content of active ingredient	□ 96%	92%–95%
Yield coefficient	95%–98%	92%–95%

Source: The China Crop Protection Industry Association (CCPIA)

2.2 Registration

Acetochlor is mainly used to control weeds in the fields of corn, soybean, peanut and other crops in China. As of 11 Oct., 2021, the number of registrations of acetochlor in China increased to 673 from 670 in Jan. 2021. And the number of registrations of acetochlor technical in China maintained at 30 in Oct. 2021. As to acetochlor formulations, there were 248 for single formulations and 395 for mixed formulations as of Oct. 2021, changing from 255 single formulations and 385 mixed formulations in Jan. 2021.

Table 2.2-1 Registrations of acetochlor technical in China, as of 11 Oct., 2021

No.	Registration number	Content	Registrant	Expire date
1	PD20094256	93%	Shandong Dehao Chemical Co., Ltd.	2024/3/31
2	PD20080344	93%	Shandong Zhongshi Pesticide Co., Ltd.	2023/2/26
3	PD20080363	93%	Yingde Greatech Chemicals Co., Ltd.	2023/2/28
4	PD20080268	93%	Taizhou Bailly Chemical Co., Ltd.	2023/2/20
5	PD20121383	97%	Anhui Futian Agrochemical Co., Ltd.	2022/9/13
6	PD20080106	93%	Liaoning Shanshui Yinong Technology Co., Ltd.	2023/1/4

No.	Registration number	Content	Registrant	Expire date
7	PD20080745	93%	Jilin Ivsheng Agrochemical Co., Ltd.	2023/6/11
8	PD20097059	93%	Shandong Eshung Industrial Co., Ltd.	2024/10/11
9	PD20130949	95%	Fuhua Tongda Agro-chemical Technology Co., Ltd.	2023/5/2
10	PD20081593	93%	Shandong Huayang Technology Co., Ltd.	2023/11/12
11	PD20070142	93%	Hangzhou Nutrichem Co., Ltd.	2022/5/30
12	PD20082083	93%	Dalian Songliao Chemical Industry Co., Ltd.	2023/11/25
13	PD20096400	93%	Shandong Dacheng Bio-chemical Co., Ltd.	2024/8/4
14	PD20080116	93%	Inner Mongolia Bailing Technology Co., Ltd.	2023/1/3
15	PD20070260	93%	Zhengzhou Labor Agrochemicals Co., Ltd.	2022/9/4
16	PD20101705	95%	Jiangsu Laike Crop Protection Co., Ltd.	2025/6/28
17	PD20110830	97%	Zhongnongfa Henan Agrochemical Co., Ltd.	2026/8/31
18	PD20060128	93%	Shandong Vicome Greenland Chemical Co., Ltd.	2026/6/26
19	PD20081193	93%	Jiangsu Changlong Agrochemical Co., Ltd.	2023/9/11
20	PD20082135	93%	Shangyu Nutrichem Co., Ltd.	2023/11/25
21	PD20083132	95%	Shandong Binnong Technology Co., Ltd.	2023/12/10
22	PD20080888	94%	Jiangsu Tianrong Group Co., Ltd.	2023/7/9
23	PD20096271	93%	Inner Mongolia Zhonggao Chemical Co., Ltd.	2024/7/22
24	PD20080087	95%	Shandong Weifang Rainbow Chemical Co., Ltd.	2023/1/3
25	PD20080635	92%	Shoujian Technology Co., Ltd.	2023/5/13
26	PD20097512	93%	ADAMA Anpon (Jiangsu) Co., Ltd.	2024/11/4
27	PD20080359	93%	Jilin Jinjiu Pesticide Co., Ltd.	2023/2/28
28	PD20096089	90%	Lianyungang Liben Crop Science and Technology Co., Ltd.	2024/6/18
29	PD20080174	93%	Nantong Jiangshan Agrochemical & Chemicals Co., Ltd.	2023/1/4
30	PD20130623	95%	Jiangsu Huifeng Technology Co., Ltd.	2023/4/3

Source: *The Institute for the Control of Agrochemicals, Ministry of Agriculture of the People's Republic of China (ICAMA)*

Table 2.2-2 Registrations of acetochlor formulations in China, as of 11 Oct., 2021

Item	Type of formulation	Total content	Number of registration
Single formulations	EC	50%, 81.5%, 89%, 900g/L, 990g/L, etc.	210
	EW	40%, 48%, 50%, 900g/L	16
	WP	20%, 40%	16
	Others	/	6
	Subtotal	/	248
Mixed formulations	EC	36%, 40%, 44%, 45%, 50%, 78%, 82%, etc.	136
	WP	14%, 18%, 20%, 25%, 30%, 35%, 40%, etc.	116
	SE	40%, 42%, 48%, 50%, 52%, 55%, 63%, 66%, etc.	106
	OD	42%, 51%, 52%, etc.	14
	Others	/	23
	Subtotal	/	395
Total			643

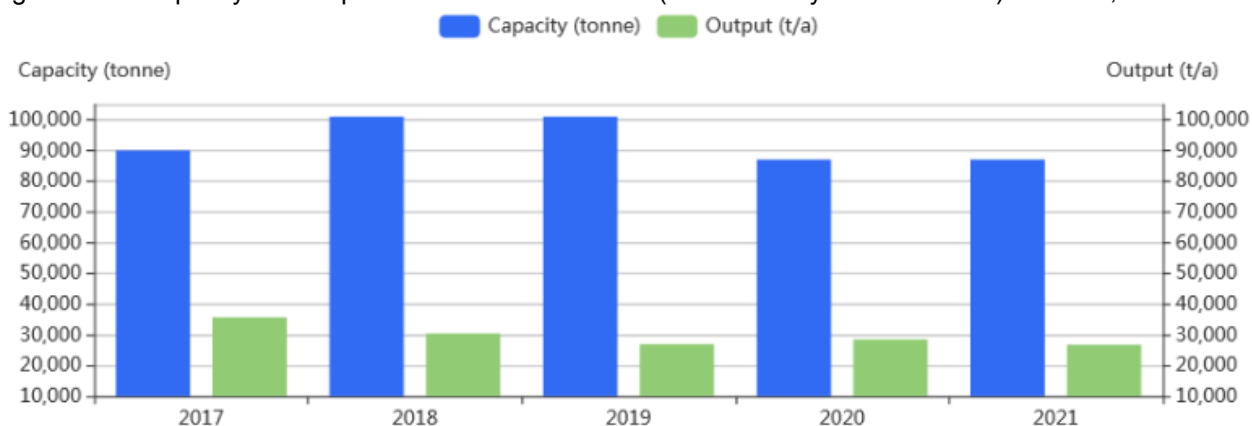
Source: ICAMA

2.3 Production, 2017–2021

In recent years, acetochlor industry in China has experienced overcapacity; total capacity of acetochlor technical has remained much larger than the output. In 2021, domestic capacity of acetochlor technical was 87,000 t/a; the output was some 26,700 tonnes, down some 6% year on year.

During 2017–2021, many producers suspended their production. In 2019, Shandong Qiaochang Chemical Co., Ltd. and Jilin Jinqiu Pesticide Co., Ltd. suspended their production of acetochlor technical. In 2020, Jiangsu Lulilai Co., Ltd. stopped its production lines. In 2021, Zhongnongfa Henan Agrochemical Co., Ltd., with 10,000 t/a capacity of acetochlor technical, suspended its production lines. Besides, Nantong Jiangshan Agrochemical & Chemicals Co., Ltd. and Jiangsu Changlong Chemical Co., Ltd. suspended their production of acetochlor technical in December for lack of the intermediate 6-ethyl-o-toluidine (MEA).

Figure 2.3-1 Capacity and output of acetochlor technical (calculated by 92% technical) in China, 2017–2021



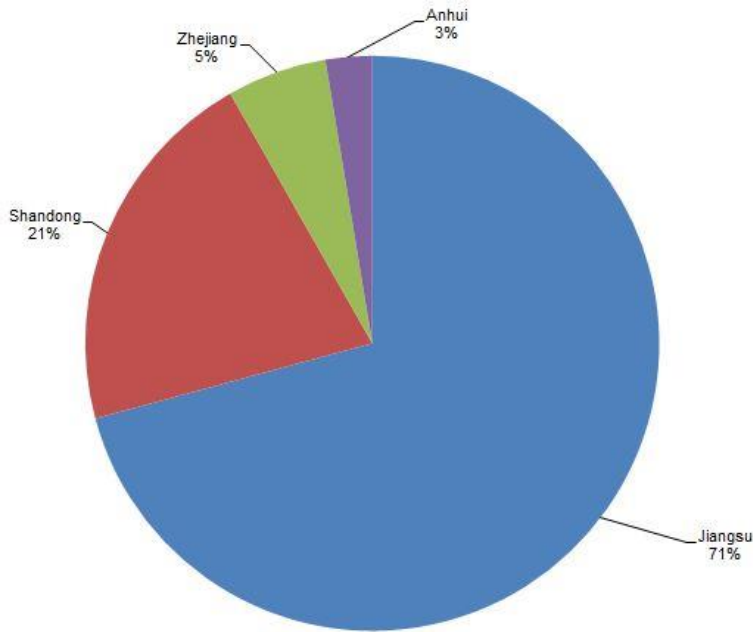
Source: CCM

Table 2.3-1 Capacity and output of key acetochlor technical producers in China, 2019–2021

No.	Producer	Status, 2021	Capacity, t/a			Output, tonne		
			2021	2020	2019	2021	2020	2019
1	Nantong Jiangshan Agrochemical & Chemicals Co., Ltd.	Active	22,000	22,000	22,000	9,500	12,000	6,500
2	Shandong Zhongshi Pesticide Co., Ltd.	Active	20,000	20,000	20,000	4,000	3,000	4,000
3	Jiangsu Changlong Agrochemical Co., Ltd.	Active	10,000	10,000	10,000	7,400	7,500	8,000
4	Zhongnongfa Henan Agrochemical Co., Ltd.	Idle	10,000	10,000	10,000	0	3,000	3,000
5	Shandong Qiaochang Chemical Co., Ltd.	Idle	10,000	10,000	10,000	0	0	0

Source: CCM

Figure 2.3-2 Distribution of active acetochlor technical producers in China by output, 2021



Source: CCM

3 Circulation

3.1 Price, 2017–2021

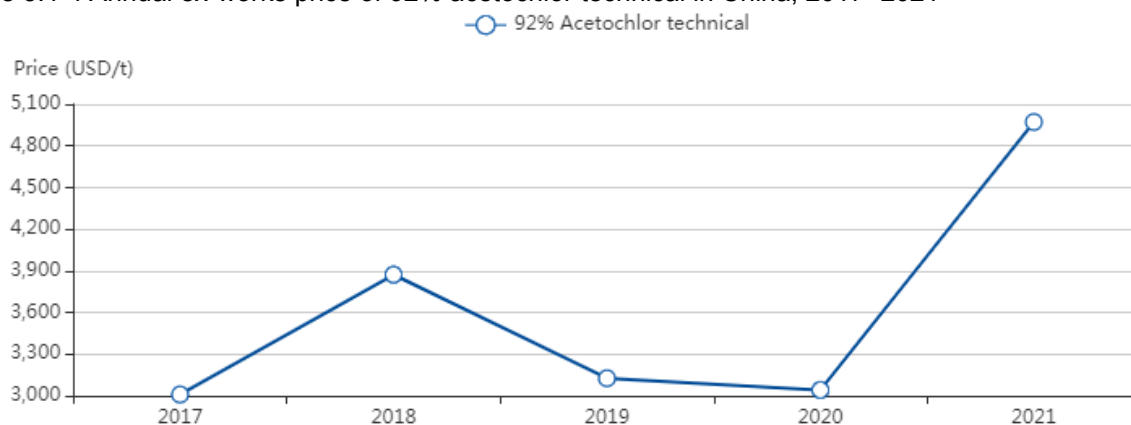
The annual ex-works price of acetochlor technical in China declined in 2019 and 2020, but it soared to USD4,971.63/t in 2021, up by over 60% year on year. Though the monthly price of acetochlor technical in China saw slight decreases from March 2021 to Aug., 2021, the price was still at a high level compared with that in 2020.

Reasons for the price rise in 2021 are as following:

- Some major manufacturers were in an idle state, which led to insufficient supply of acetochlor technical. Anhui Futian Agrochemical Co., Ltd. suspended producing the product in H2. It was found that Nantong Jiangshan Agrochemical & Chemicals Co., Ltd. and Jiangsu Changlong Chemical Co., Ltd. also temporarily stopped producing acetochlor technical in December.
- Prices of raw materials and intermediates for acetochlor production went up in China.

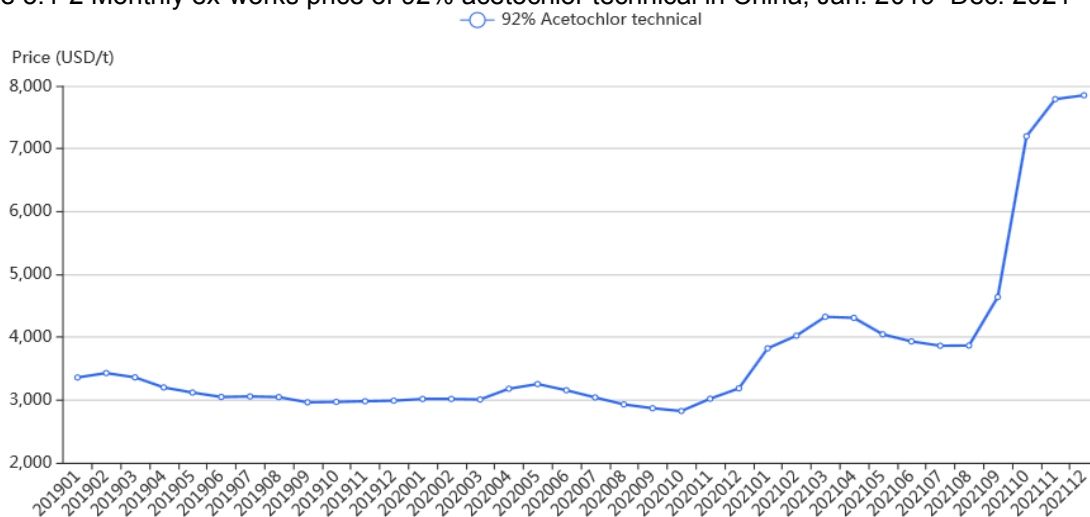
In Oct. 2021, the monthly ex-works price of 92% acetochlor technical in China shot to USD7,197.7/t, up 55.18% month on month, the biggest rise seen since Jan. 2019, encouraged by soaring raw material prices. The Dec. price edged up further to USD7,850.16/t, up 146.42% year on year.

Figure 3.1-1 Annual ex-works price of 92% acetochlor technical in China, 2017–2021



Source: CCM

Figure 3.1-2 Monthly ex-works price of 92% acetochlor technical in China, Jan. 2019–Dec. 2021



Source: CCM

3.2 Export, 2017–2020

3.2.1 By month

According to the export data from Tranalysis, in 2020, China exported 7,267.451 tonnes of acetochlor products. Major acetochlor products for export in 2020 were 50% EC, 90% EC, 92% TC, 93% TC, 95% TC and 97% TC.

Table 3.2.1-1 China's exports of acetochlor technical and formulations by month, 2020

Month	50% EC		90% EC		92% Tech.		93% Tech.		95% Tech.		97% Tech.	
	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	119.920	2.09	947.667	2.94	0.000	/	115.200	2.77	91.975	2.68	0.000	/
2	26.000	2.07	195.790	3.09	0.000	/	112.000	2.63	0.000	/	0.000	/
3	110.880	2.04	122.554	3.07	0.000	/	230.200	2.68	195.000	2.76	28.800	2.71
4	88.260	2.15	86.214	3.00	0.000	/	162.600	2.75	79.750	2.74	0.000	/
5	69.000	2.16	0.000	/	48.000	2.83	362.120	2.83	165.000	2.80	48.000	2.97
6	272.000	2.03	255.420	2.88	0.000	/	158.880	2.82	91.320	2.89	0.000	/
7	80.000	2.03	228.750	3.89	0.000	/	16.000	2.80	27.720	2.91	0.000	/
8	80.000	2.03	464.775	2.83	0.000	/	18.600	2.82	0.000	/	0.000	/
9	0.000	/	63.184	3.25	32.000	3.24	16.000	3.85	0.000	/	0.000	/
10	62.766	3.10	330.000	2.67	0.000	/	16.350	3.58	198.120	2.80	0.000	/
11	32.000	2.86	220.002	2.85	0.000	/	255.360	2.87	136.500	2.85	0.000	/
12	16.000	2.05	315.213	2.75	0.000	/	330.160	2.91	145.400	2.88	0.000	/
Total	956.826	2.16	3,229.569	2.96	80.000	2.99	1,793.470	2.82	1,130.785	2.81	76.800	2.87

Note: 1. Nuances in some data are mainly caused by rounding.

2. The export data of acetochlor technical and formulations in 2020 are incomplete.

Source: China Customs & CCM

Table 3.2.1-2 China's exports of acetochlor technical and formulations by month, 2019

Month	20% WP		50% EC		81.5% EC		90% EC		92% Tech.		93% Tech.		94% Tech.		95% Tech.		97% Tech.	
	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	0.000	/	484.340	2.54	0.000	/	725.762	3.55	0.000	/	85.400	3.17	0.000	/	199.200	3.32	0.000	/
2	0.000	/	153.430	2.55	0.000	/	782.698	3.47	0.000	/	34.000	3.01	64.000	3.13	83.600	3.09	0.000	/
3	0.000	/	548.665	2.39	0.000	/	131.940	3.46	0.000	/	161.600	3.20	0.000	/	175.000	3.15	16.000	3.35
4	0.000	/	224.370	2.31	0.000	/	49.080	4.78	0.000	/	47.600	2.82	0.000	/	120.000	3.02	0.000	/
5	0.000	/	581.939	2.32	101.191	3.37	70.138	3.98	0.000	/	64.000	2.99	0.000	/	270.225	2.87	0.000	/
6	0.000	/	223.680	2.12	0.000	/	278.107	3.83	13.200	2.91	154.200	3.07	0.000	/	259.200	2.90	0.000	/
7	0.000	/	420.316	2.16	0.000	/	162.349	3.86	0.000	/	119.000	2.88	0.000	/	6.075	3.03	0.000	/
8	0.000	/	51.971	2.25	0.000	/	333.328	3.62	0.000	/	51.200	2.99	0.000	/	99.000	2.79	0.000	/
9	3.000	1.91	44.800	2.20	0.000	/	316.295	3.46	0.000	/	0.000	/	0.000	/	67.600	2.92	0.000	/
10	0.000	/	92.586	2.19	0.000	/	212.346	3.18	0.000	/	16.000	2.70	0.000	/	112.180	2.84	0.000	/
11	0.000	/	73.104	2.14	0.000	/	356.650	3.45	0.000	/	16.000	2.83	0.000	/	36.950	2.73	0.000	/
12	0.000	/	111.520	1.98	1.500	4.31	1,205.460	2.89	0.000	/	229.400	2.94	0.000	/	61.000	2.74	0.000	/
Total	3.000	1.91	3,010.721	2.33	102.691	3.69	4,624.153	3.49	13.200	2.91	978.400	3.02	64.000	3.13	1,490.030	2.95	16.000	3.35

Note: Nuances in some data are mainly caused by rounding.

Source: China Customs & CCM

Table 3.2.1-3 China's exports of acetochlor technical and formulations by month, 2018

Month	50% EC		81.5% EC		90% EC		92% Tech.		93% Tech.		94% Tech.		95% Tech.		97% Tech.	
	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	482.080	3.63	0.000	/	198.149	3.84	0.000	/	1,318.220	3.64	0.000	/	16.000	3.89	0.000	/
2	343.544	3.52	0.000	/	318.848	3.43	0.000	/	470.680	3.35	0.000	/	44.000	3.58	0.000	/
3	261.840	2.92	0.000	/	362.973	4.15	0.000	/	104.800	4.49	0.000	/	244.500	3.75	32.000	3.86
4	182.393	2.94	0.000	/	91.900	4.06	0.000	/	45.400	3.96	13.000	3.71	373.900	3.80	16.000	3.73
5	529.860	2.75	0.000	/	203.185	4.10	0.000	/	76.120	3.89	15.200	3.92	71.280	4.08	37.000	3.68
6	191.432	2.83	0.000	/	301.840	4.28	17.600	3.65	59.720	3.68	0.000	/	198.000	3.78	5.050	4.50
7	94.264	2.90	0.000	/	531.329	4.62	0.000	/	36.300	4.02	0.000	/	65.000	3.66	0.000	/
8	114.816	2.82	0.000	/	305.226	4.67	0.000	/	17.600	3.66	0.000	/	372.430	3.98	16.000	3.95
9	39.472	2.90	71.670	4.24	492.532	4.02	0.000	/	421.600	3.32	0.000	/	82.000	3.42	32.000	3.95
10	59.408	2.53	0.000	/	556.008	3.77	0.000	/	322.200	3.28	0.000	/	38.000	3.26	0.000	/
11	222.400	2.58	65.506	4.12	1,286.776	3.63	0.000	/	437.000	3.24	96.000	3.20	109.200	3.20	0.000	/
12	443.783	2.50	0.000	/	529.821	3.43	0.000	/	506.079	3.24	0.000	/	0.000	/	0.000	/
Total	2,965.292	2.97	137.176	3.96	5,178.588	3.76	17.600	3.65	3,815.719	3.52	124.200	3.28	1,614.310	3.67	138.050	3.84

Note: Nuances in some data are mainly caused by rounding.

Source: China Customs & CCM

Table 3.2.1-4 China's exports of acetochlor technical and formulations by month, 2017

Month	20% WP		50% EC		90% EC		92% Tech.		93% Tech.		94% Tech.		95% Tech.		97% Tech.	
	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	0.000	/	540.240	1.92	2,111.492	2.97	32.000	2.60	543.400	2.48	32.000	2.39	94.200	2.96	65.600	3.12
2	0.000	/	519.480	1.92	675.202	2.85	0.000	/	384.550	2.57	0.000	/	2.400	3.47	17.600	2.57
3	0.000	/	813.274	2.07	604.485	3.10	84.800	2.61	223.780	2.55	0.000	/	198.000	2.69	33.400	2.78
4	0.000	/	569.896	1.98	194.554	2.98	0.000	/	323.995	2.83	0.000	/	82.000	2.63	37.200	2.62
5	16.000	1.82	463.355	2.08	291.750	2.93	0.000	/	242.340	2.60	0.000	/	329.640	2.70	0.000	/
6	0.000	/	172.390	2.25	693.999	3.09	0.000	/	168.800	2.39	0.000	/	116.000	2.56	0.000	/
7	0.000	/	230.101	2.21	794.048	3.42	0.000	/	65.100	2.64	0.000	/	330.850	2.80	0.000	/
8	0.000	/	32.475	7.20	337.487	3.50	0.000	/	96.000	2.75	0.000	/	94.650	2.63	0.000	/
9	0.000	/	46.560	2.62	440.976	3.49	0.000	/	109.200	2.60	0.000	/	160.000	2.96	32.000	3.48
10	0.000	/	171.280	2.49	197.760	3.56	0.000	/	251.100	2.82	0.000	/	0.000	/	0.000	/
11	0.000	/	228.770	2.60	143.020	3.75	0.000	/	216.200	3.51	0.000	/	37.000	3.52	0.000	/
12	0.000	/	39.600	3.18	1,075.678	3.98	0.000	/	279.400	3.68	0.000	/	290.000	3.64	24.000	4.00
Total	16.000	1.82	3,827.421	2.13	7,560.451	3.16	116.800	2.62	2,903.865	2.74	32.000	2.39	1,734.740	2.92	209.800	3.12

Note: Nuances in some data are mainly caused by rounding.

Source: China Customs & CCM

3.2.2 By destination

Ukraine, Pakistan, Vietnam, Argentina and Thailand were the top five destinations of acetochlor exported from China in 2020.

Table 3.2.2-1 China's exports of acetochlor technical and formulations by destination, 2020

No.	Destination	50% EC		90% EC		92% Tech.		93% Tech.		95% Tech.		97% Tech.		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	
1	Ukraine	35.200	3.10	2083.177	2.85	0.000	/	0.000	/	70.400	2.89	0.000	/	2,188.778
2	Pakistan	21.000	2.51	0.000	/	32.000	3.24	987.390	2.80	446.000	2.79	0.000	/	1,486.390
3	Vietnam	528.000	2.08	9.190	3.25	48.000	2.83	207.120	2.82	366.385	2.83	0.000	/	1,158.695
4	Argentina	0.000	/	523.000	2.85	0.000	/	0.000	/	100.000	2.77	0.000	/	623.000
5	Thailand	333.060	2.06	3.136	2.06	0.000	/	80.000	2.71	128.000	2.72	40.800	2.71	584.996
6	The US	0.000	/	0.000	/	0.000	/	293.760	2.85	0.000	/	0.000	/	293.760
7	Chile	0.000	/	263.707	3.77	0.000	/	0.000	/	0.000	/	0.000	/	263.707
8	South Africa	0.000	/	90.350	3.04	0.000	/	35.200	2.95	0.000	/	36.000	3.05	161.550
9	Israel	0.000	/	0.000	/	0.000	/	128.000	3.00	0.000	/	0.000	/	128.000
10	Russia	0.000	/	123.200	3.21	0.000	/	0.000	/	0.000	/	0.000	/	123.200
11	Bolivia	0.000	/	38.282	3.12	0.000	/	0.000	/	0.000	/	0.000	/	38.282
12	Singapore	0.000	/	0.000	/	0.000	/	38.000	2.65	0.000	/	0.000	/	38.000
13	Guatemala	0.000	/	36.424	3.10	0.000	/	0.000	/	0.000	/	0.000	/	36.424
14	The Dominican Republic	27.566	3.10	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	27.566
15	Mexico	0.000	/	0.000	/	0.000	/	0.000	/	20.000	3.10	0.000	/	20.000
16	Egypt	0.000	/	17.448	3.10	0.000	/	0.000	/	0.000	/	0.000	/	17.448
17	The UK	0.000	/	16.895	3.24	0.000	/	0.000	/	0.000	/	0.000	/	16.895

No.	Destination	50% EC		90% EC		92% Tech.		93% Tech.		95% Tech.		97% Tech.		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	
18	Uruguay	0.000	/	15.360	2.83	0.000	/	0.000	/	0.000	/	0.000	/	15.360
19	Colombia	0.000	/	0.000	/	0.000	/	13.000	3.07	0.000	/	0.000	/	13.000
20	Guinea	12.000	2.84	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	12.000
21	Bangladesh	0.000	/	0.000	/	0.000	/	11.000	2.65	0.000	/	0.000	/	11.000
22	Zambia	0.000	/	7.200	3.73	0.000	/	0.000	/	0.000	/	0.000	/	7.200
23	Mozambique	0.000	/	2.200	3.77	0.000	/	0.000	/	0.000	/	0.000	/	2.200
Total		956.826	2.16	3,229.569	2.96	80.000	2.99	1,793.470	2.82	1,130.785	2.81	76.800	2.87	7,267.451

Note: 1. Nuances in some data are mainly caused by rounding.

2. The export data of acetochlor technical and formulations in 2020 are incomplete.

Source: China Customs & CCM

Table 3.2.2-2 China's exports of acetochlor technical and formulations by destination, 2019

No.	Destination	20% WP		50% EC		81.5% EC		90% EC		92% Tech.		93% Tech.		94% Tech.		95% Tech.		97% Tech.		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	Ukraine	0.000	/	0.000	/	0.000	/	3,064.775	3.18	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	3,064.775
2	Thailand	0.000	/	1,838.312	2.30	0.000	/	41.296	2.22	0.000	/	64.000	2.93	0.000	/	162.200	3.04	0.000	/	2,105.808
3	Vietnam	3.000	1.91	785.725	2.24	0.000	/	18.725	2.79	13.200	2.91	184.200	3.01	0.000	/	519.950	2.82	0.000	/	1,524.800
4	South Africa	0.000	/	0.000	/	22.519	3.15	502.788	3.64	0.000	/	17.600	3.14	0.000	/	130.355	3.09	0.000	/	673.262
5	Pakistan	0.000	/	38.688	2.45	0.000	/	0.000	/	0.000	/	250.800	3.00	64.000	3.13	211.200	2.98	0.000	/	564.688
6	Argentina	0.000	/	0.000	/	0.000	/	47.434	3.14	0.000	/	38.000	2.86	0.000	/	413.000	3.02	0.000	/	498.434
7	The US	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	336.600	3.06	0.000	/	0.000	/	0.000	/	336.600
8	North Korea	0.000	/	254.150	2.37	0.000	/	18.520	3.09	0.000	/	13.200	3.08	0.000	/	1.125	2.79	0.000	/	286.995
9	New Zealand	0.000	/	0.000	/	0.000	/	199.857	4.22	0.000	/	16.000	2.95	0.000	/	0.000	/	0.000	/	215.857
10	Uruguay	0.000	/	0.000	/	0.000	/	179.400	3.17	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	179.400
11	Mozambique	0.000	/	0.000	/	0.000	/	127.682	3.43	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	127.682
12	Chile	0.000	/	0.000	/	0.000	/	113.310	4.85	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	113.310
13	Egypt	0.000	/	46.296	3.67	0.000	/	63.627	3.33	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	109.923
14	Venezuela	0.000	/	0.000	/	78.672	3.59	18.445	3.16	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	97.117
15	Iran	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	58.000	3.28	0.000	/	16.000	3.14	16.000	3.35	90.000
16	Zambia	0.000	/	0.000	/	0.000	/	66.750	3.77	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	66.750
17	Tanzania	0.000	/	0.000	/	0.000	/	42.680	3.50	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	42.680
18	Russia	0.000	/	0.000	/	0.000	/	32.960	3.74	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	32.960
19	Bolivia	0.000	/	16.000	2.16	0.000	/	16.500	3.50	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	32.500
20	Israel	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	32.000	3.45	0.000	/	32.000
21	The Democratic Republic of the Congo	0.000	/	0.110	5.15	0.000	/	22.000	3.41	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	22.110
22	Cambodia	0.000	/	15.440	2.72	0.000	/	4.080	3.13	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	19.520
23	Bangladesh	0.000	/	16.000	2.39	0.000	/	2.910	6.08	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	18.910
24	Zimbabwe	0.000	/	0.000	/	0.000	/	16.300	3.81	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	16.300
25	The Dominican Republic	0.000	/	0.000	/	0.000	/	7.700	2.99	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	7.700
26	Malawi	0.000	/	0.000	/	0.000	/	6.000	3.09	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	6.000
27	Angola	0.000	/	0.000	/	0.000	/	4.840	3.38	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	4.840
28	Myanmar	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	4.200	3.20	0.000	/	4.200

No.	Destination	20% WP		50% EC		81.5% EC		90% EC		92% Tech.		93% Tech.		94% Tech.		95% Tech.		97% Tech.		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	
29	Nigeria	0.000	/	0.000	/	0.000	/	4.000	2.82	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	4.000
30	Moldova	0.000	/	0.000	/	1.500	4.31	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	1.500
31	Kenya	0.000	/	0.000	/	0.000	/	1.100	4.20	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	1.100
32	Honduras	0.000	/	0.000	/	0.000	/	0.474	4.43	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.474
Total		3.000	1.91	3,010.721	2.33	102.691	3.69	4,624.153	3.49	13.200	2.91	978.400	3.02	64.000	3.13	1,490.030	2.95	16.000	3.35	10,302.195

Note: Nuances in some data are mainly caused by rounding.
Source: China Customs & CCM

Table 3.2.2-3 China's exports of acetochlor technical and formulations by destination, 2018

No.	Destination	50% EC		81.5% EC		90% EC		92% Tech.		93% Tech.		94% Tech.		95% Tech.		97% Tech.		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	
1	Ukraine	564.344	3.75	0.000	/	2,749.008	3.64	0.000	/	324.000	3.28	0.000	/	12.320	4.45	0.000	/	3,649.672
2	Thailand	1,739.979	2.72	0.000	/	51.200	2.59	0.000	/	403.280	3.24	0.000	/	751.680	3.58	0.000	/	2,946.139
3	Israel	0.000	/	0.000	/	0.000	/	0.000	/	1,312.000	3.46	0.000	/	0.000	/	0.000	/	1,312.000
4	South Africa	0.000	/	72.700	3.69	960.410	3.90	0.000	/	168.920	3.78	0.000	/	106.000	4.10	0.000	/	1,308.030
5	Pakistan	48.000	2.55	0.000	/	24.800	3.18	17.600	3.65	505.600	3.48	96.000	3.20	246.000	3.39	0.000	/	938.000
6	Vietnam	221.481	2.70	0.000	/	11.590	5.29	0.000	/	190.419	3.36	16.000	3.74	402.580	3.75	42.050	3.89	884.120
7	The US	0.000	/	0.000	/	0.000	/	0.000	/	614.900	3.78	0.000	/	0.000	/	0.000	/	614.900
8	Uruguay	0.000	/	17.440	4.07	381.366	3.70	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	398.806
9	New Zealand	0.000	/	0.000	/	233.274	4.99	0.000	/	0.000	/	0.000	/	15.000	4.31	0.000	/	248.274
10	Egypt	39.800	7.62	0.000	/	138.530	3.92	0.000	/	54.000	3.52	0.000	/	0.000	/	0.000	/	232.330
11	Guatemala	8.784	3.40	0.000	/	46.587	3.41	0.000	/	32.000	3.39	0.000	/	0.030	7.40	96.000	3.87	183.401
12	North Korea	156.820	2.63	0.000	/	12.080	3.75	0.000	/	2.000	3.11	0.000	/	1.000	3.75	0.000	/	171.900
13	Venezuela	0.000	/	0.000	/	162.000	3.85	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	162.000
14	Australia	0.000	/	0.000	/	0.000	/	0.000	/	158.400	4.52	0.000	/	0.000	/	0.000	/	158.400
15	Chile	0.000	/	0.000	/	130.768	5.10	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	130.768
16	Cambodia	113.564	2.73	0.000	/	10.000	5.16	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	123.564
17	Mozambique	0.000	/	0.000	/	83.600	4.32	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	83.600
18	Tanzania	0.000	/	3.960	4.62	52.140	4.26	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	56.100
19	Malawi	0.000	/	40.876	4.35	11.000	3.77	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	51.876
20	Argentina	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	50.000	3.82	0.000	/	50.000
21	Bangladesh	10.000	3.59	0.000	/	0.000	/	0.000	/	38.500	3.45	0.000	/	0.000	/	0.000	/	48.500
22	Russia	17.600	4.00	0.000	/	17.600	4.00	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	35.200
23	Zimbabwe	0.000	/	0.000	/	26.404	4.67	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	26.404
24	Iran	0.000	/	0.000	/	0.000	/	0.000	/	11.700	3.85	12.200	4.03	0.000	/	0.000	/	23.900
25	Myanmar	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	23.700	3.49	0.000	/	23.700
26	Bolivia	17.600	3.86	0.000	/	5.500	4.28	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	23.100
27	Congo (Kinshasa)	0.000	/	0.000	/	23.100	4.07	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	23.100
28	Zambia	0.000	/	2.200	4.88	15.409	4.98	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	17.609
29	South Korea	15.440	2.75	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	15.440
30	Guinea	11.880	4.38	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	11.880
31	The Dominican Republic	0.000	/	0.000	/	8.724	3.51	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	8.724

No.	Destination	50% EC		81.5% EC		90% EC		92% Tech.		93% Tech.		94% Tech.		95% Tech.		97% Tech.		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	
32	Nicaragua	0.000	/	0.000	/	6.600	3.49	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	6.600
33	Colombia	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	6.000	3.72	0.000	/	6.000
34	El Salvador	0.000	/	0.000	/	5.465	4.25	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	5.465
35	Iraq	0.000	/	0.000	/	5.460	2.84	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	5.460
36	Moldova	0.000	/	0.000	/	3.300	4.25	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	3.300
37	Panama	0.000	/	0.000	/	1.353	4.72	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	1.353
38	Angola	0.000	/	0.000	/	0.660	4.90	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.660
39	Honduras	0.000	/	0.000	/	0.419	5.38	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.419
40	Madagascar	0.000	/	0.000	/	0.220	4.77	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.220
41	Togo	0.000	/	0.000	/	0.020	8.65	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.020
Total		2,965.292	2.97	137.176	3.96	5,178.588	3.76	17.600	3.65	3,815.719	3.52	124.200	3.28	1,614.310	3.67	138.050	3.84	13,990.935

Note: Nuances in some data are mainly caused by rounding.
Source: China Customs & CCM

Table 3.2.2-4 China's exports of acetochlor technical and formulations by destination, 2017

No.	Destination	20% WP		50% EC		90% EC		92% Tech.		93% Tech.		94% Tech.		95% Tech.		97% Tech.		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	
1	Ukraine	0.000	/	0.000	/	4,316.312	3.08	0.000	/	3.200	2.69	0.000	/	144.000	3.37	0.000	/	4,463.512
2	Thailand	0.000	/	1,523.654	2.20	26.467	3.15	0.000	/	746.100	2.58	0.000	/	651.000	2.74	0.000	/	2,947.221
3	Vietnam	16.000	1.82	1,156.226	2.14	0.000	/	0.000	/	320.740	2.52	0.000	/	149.250	3.09	0.000	/	1,642.216
4	Argentina	0.000	/	0.000	/	940.235	3.15	0.000	/	328.000	2.43	0.000	/	252.000	2.79	0.000	/	1,520.235
5	Pakistan	0.000	/	349.141	1.92	0.000	/	81.600	2.60	756.270	2.77	32.000	2.39	96.000	3.17	70.400	2.56	1,385.411
6	South Africa	0.000	/	0.000	/	863.720	3.34	35.200	2.63	147.860	3.29	0.000	/	62.800	3.24	0.000	/	1,109.580
7	North Korea	0.000	/	577.570	1.99	38.706	2.87	0.000	/	0.675	2.60	0.000	/	0.000	/	14.400	2.61	631.351
8	Uruguay	0.000	/	0.000	/	479.700	3.13	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	479.700
9	Israel	0.000	/	0.000	/	0.000	/	0.000	/	256.000	2.91	0.000	/	0.000	/	0.000	/	256.000
10	Guatemala	0.000	/	0.000	/	132.657	3.81	0.000	/	0.000	/	0.000	/	0.000	/	120.000	3.54	252.657
11	New Zealand	0.000	/	0.000	/	201.420	3.32	0.000	/	0.000	/	0.000	/	19.040	2.57	0.000	/	220.460
12	Myanmar	0.000	/	0.000	/	1.100	3.93	0.000	/	0.000	/	0.000	/	212.850	2.64	0.000	/	213.950
13	Chile	0.000	/	0.000	/	132.789	3.44	0.000	/	59.400	3.14	0.000	/	0.000	/	0.000	/	192.189
14	Senegal	0.000	/	136.045	2.87	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	136.045
15	The US	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	124.400	3.76	0.000	/	124.400
16	Egypt	0.000	/	16.955	9.59	84.599	3.46	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	101.554
17	Australia	0.000	/	0.000	/	0.000	/	0.000	/	99.000	3.80	0.000	/	0.000	/	0.000	/	99.000
18	Mozambique	0.000	/	0.000	/	77.550	3.20	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	77.550
19	Peru	0.000	/	0.000	/	0.000	/	0.000	/	63.200	2.53	0.000	/	0.000	/	0.000	/	63.200
20	Cambodia	0.000	/	59.830	2.19	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	59.830
21	Tanzania	0.000	/	0.000	/	52.804	3.51	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	52.804
22	Singapore	0.000	/	0.000	/	0.000	/	0.000	/	49.940	2.44	0.000	/	0.000	/	0.000	/	49.940
23	Iran	0.000	/	8.000	4.01	0.000	/	0.000	/	35.880	3.09	0.000	/	0.000	/	5.000	2.41	48.880
24	Hungary	0.000	/	0.000	/	36.300	2.95	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	36.300
25	Russia	0.000	/	0.000	/	35.200	3.09	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	35.200
26	Bangladesh	0.000	/	0.000	/	0.000	/	0.000	/	17.600	2.43	0.000	/	16.000	2.51	0.000	/	33.600
27	Ghana	0.000	/	0.000	/	32.400	3.72	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	32.400
28	Zambia	0.000	/	0.000	/	20.800	3.73	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	20.800
29	The UK	0.000	/	0.000	/	17.280	2.79	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	17.280
30	Malawi	0.000	/	0.000	/	12.100	2.65	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	12.100
31	Guinea	0.000	/	0.000	/	12.000	2.88	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	12.000

No.	Destination	20% WP		50% EC		90% EC		92% Tech.		93% Tech.		94% Tech.		95% Tech.		97% Tech.		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	
32	Zimbabwe	0.000	/	0.000	/	12.000	3.44	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	12.000
33	Taiwan Province	0.000	/	0.000	/	0.000	/	0.000	/	10.000	2.55	0.000	/	0.000	/	0.000	/	10.000
34	The United Arab Emirates	0.000	/	0.000	/	0.000	/	0.000	/	10.000	2.87	0.000	/	0.000	/	0.000	/	10.000
35	Greece	0.000	/	0.000	/	9.900	3.00	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	9.900
36	El Salvador	0.000	/	0.000	/	6.549	2.99	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	6.549
37	Honduras	0.000	/	0.000	/	6.274	4.00	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	6.274
38	Mauritius	0.000	/	0.000	/	5.500	3.26	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	5.500
39	Indonesia	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	4.000	3.00	0.000	/	4.000
40	Moldova	0.000	/	0.000	/	4.000	3.31	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	4.000
41	Venezuela	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	2.400	3.47	0.000	/	2.400
42	The Dominican Republic	0.000	/	0.000	/	1.159	6.22	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	1.159
43	The Philippines	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	1.000	2.50	0.000	/	1.000
44	Angola	0.000	/	0.000	/	0.930	3.30	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.930
Total		16.000	1.82	3,827.421	2.13	7,560.451	3.16	116.800	2.62	2,903.865	2.74	32.000	2.39	1,734.740	2.92	209.800	3.12	16,401.077

Note: Nuances in some data are mainly caused by rounding.

Source: China Customs & CCM

3.2.3 By exporter

Table 3.2.3-1 China's exports of acetochlor technical and formulations by exporter, 2020

No.	Exporter	50% EC		90% EC		92% Tech.		93% Tech.		95% Tech.		97% Tech.		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	
1	Hangzhou Nutrichem Co., Ltd.	0.000	/	1,627.123	2.80	0.000	/	72.000	2.79	0.000	/	0.000	/	1,699.123
2	Nantong Jiangshan Agrochemical & Chemicals Co., Ltd.	138.000	2.05	0.000	/	16.000	3.85	427.470	2.82	35.200	2.76	0.000	/	616.670
3	Shandong Binnong Technology Co., Ltd.	21.000	2.45	21.960	2.82	0.000	/	0.000	/	450.400	2.82	0.000	/	493.360
4	Shandong Weifang Rainbow Chemical Co., Ltd.	48.240	2.28	78.812	2.99	0.000	/	0.000	/	359.000	2.77	0.000	/	486.052
5	DAI Company Ltd.	0.000	/	485.000	2.85	0.000	/	0.000	/	0.000	/	0.000	/	485.000
6	Eastchem Co., Ltd.	208.000	2.14	0.000	/	0.000	/	7.000	2.78	189.725	2.80	0.000	/	404.725
7	Nanjing Bodao Logistics Co., Ltd.	0.000	/	0.000	/	0.000	/	400.000	2.76	0.000	/	0.000	/	400.000
8	Yangzhou Pioneer Chemical Co., Ltd.	0.000	/	0.000	/	0.000	/	333.200	2.86	0.000	/	0.000	/	333.200
9	Jiangsu Changlong Agrochemical Co., Ltd.	102.880	1.98	0.000	/	0.000	/	160.000	2.87	0.000	/	0.000	/	262.880
10	Jiangsu Sinamyang International Group Co., Ltd.	160.000	2.03	0.000	/	0.000	/	16.000	2.84	0.000	/	0.000	/	176.000
11	Honbor Chemical Co., Ltd.	160.000	2.05	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	160.000
12	Shenzhen Iprochem Co., Ltd.	50.880	2.76	97.460	3.27	0.000	/	0.000	/	0.000	/	0.000	/	148.340
13	Nutrichem Company Limited	0.000	/	0.000	/	0.000	/	141.000	3.01	0.000	/	0.000	/	141.000
14	China Jiangsu International Economic and Technical Cooperation Group, Ltd.	0.000	/	65.120	3.03	0.000	/	12.000	2.91	0.000	/	36.000	3.05	113.120
15	Shanghai KJ Import and Export Co., Ltd.	0.000	/	105.600	3.09	0.000	/	0.000	/	0.000	/	0.000	/	105.600
Others		67.826	2.64	748.495	3.30	64.000	2.78	224.800	2.75	96.460	2.91	40.800	2.71	1,242.381
Total		956.826	2.16	3,229.570	2.96	80.000	2.99	1,793.470	2.82	1,130.785	2.81	76.800	2.87	7,267.451

Note: 1. Nuances in some data are mainly caused by rounding.

2. The export data of acetochlor technical and formulations in 2020 are incomplete.

Source: China Customs & CCM

Table 3.2.3-2 China's exports of acetochlor technical and formulations by exporter, 2019

No.	Exporter	20% WP		50% EC		81.5% EC		90% EC		92% Tech.		93% Tech.		94% Tech.		95% Tech.		97% Tech.		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	Hangzhou Nutrichem Co., Ltd.	0.000	/	0.000	/	0.000	/	2,308.420	3.03	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	2,308.420
2	Shandong Binnong Technology Co., Ltd.	0.000	/	145.344	2.69	0.000	/	1,037.080	3.48	0.000	/	16.000	2.93	0.000	/	290.200	3.00	0.000	/	1,488.624
3	Shandong Weifang Rainbow Chemical Co., Ltd.	0.000	/	314.370	2.27	0.000	/	232.432	4.09	0.000	/	0.000	/	0.000	/	491.775	2.98	0.000	/	1,038.577
4	Nantong Jiangshan Agrochemical & Chemicals Co., Ltd.	0.000	/	492.792	2.25	0.000	/	17.600	3.77	0.000	/	81.600	2.90	0.000	/	0.000	/	0.000	/	591.992
5	Jingjiang Sinamyang Import & Export Co., Ltd.	0.000	/	391.065	2.31	0.000	/	0.000	/	0.000	/	80.000	3.07	0.000	/	0.000	/	0.000	/	471.065
6	Eastchem Co., Ltd.	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	15.000	3.13	0.000	/	451.150	2.79	0.000	/	466.150
7	Suzhou Everfortune Imp. & Exp. Co., Ltd.	0.000	/	0.000	/	0.000	/	270.468	3.83	0.000	/	17.600	3.14	0.000	/	52.800	3.28	0.000	/	340.868
8	China Jiangsu International Economic Technical Cooperation Group Co., Ltd.	0.000	/	30.880	2.45	0.000	/	138.600	3.18	0.000	/	52.800	3.15	0.000	/	17.600	3.34	0.000	/	239.880
9	Shenzhen Honbor Industrial Co., Ltd.	0.000	/	200.720	2.28	0.000	/	0.000	/	0.000	/	16.000	3.00	0.000	/	16.000	3.00	0.000	/	232.720
10	Yangzhou Pioneer Chemical Co., Ltd.	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	224.400	3.00	0.000	/	0.000	/	0.000	/	224.400
11	Jiangsu Changlong Agrochemical Co., Ltd.	0.000	/	215.505	2.06	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	215.505
12	Zhejiang Zhongshan Chemical Industry Group Co., Ltd.	0.000	/	199.680	2.12	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	199.680
13	Shandong Qiaochang Modern Agriculture Import & Export Co., Ltd.	0.000	/	55.296	2.21	0.000	/	37.758	4.48	0.000	/	0.000	/	0.000	/	42.180	2.85	0.000	/	135.234
14	Shanghai Haoyan International Trading Co., Ltd.	0.000	/	131.760	2.35	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	131.760
15	Shandong Kesai Eagrow Chemical Co., Ltd.	0.000	/	100.880	2.06	22.519	3.15	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	123.399
Others		3.000	1.91	732.429	2.40	80.172	3.61	581.795	3.56	13.200	2.91	475.000	3.05	64.000	3.13	128.325	3.08	16.000	3.35	2,093.921
Total		3.000	1.91	3,010.721	2.33	102.691	3.69	4,624.153	3.49	13.200	2.91	978.400	3.02	64.000	3.13	1,490.030	2.95	16.000	3.35	10,302.195

Note: Nuances in some data are mainly caused by rounding.
Source: China Customs & CCM

Table 3.2.3-3 China's exports of acetochlor technical and formulations by exporter, 2018

No.	Exporter	50% EC		81.5% EC		90% EC		92% Tech.		93% Tech.		94% Tech.		95% Tech.		97% Tech.		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	
1	Shandong Binnong Technology Co., Ltd.	287.656	2.83	0.000	/	578.854	4.09	0.000	/	16.000	3.13	0.000	/	565.200	3.58	0.000	/	1,447.710
2	Hangzhou Nutrichem Co., Ltd.	0.000	/	0.000	/	1,075.470	3.43	0.000	/	324.000	3.28	0.000	/	0.000	/	0.000	/	1,399.470
3	Shandong Weifang Rainbow Chemical Co., Ltd.	339.491	2.85	0.000	/	316.617	4.73	0.000	/	0.000	/	0.000	/	654.030	3.96	0.000	/	1,310.138
4	Nutrichem Company Limited	0.000	/	0.000	/	0.000	/	0.000	/	1,120.000	3.41	0.000	/	0.000	/	0.000	/	1,120.000
5	Nantong Jiangshan Agrochemical & Chemicals Co., Ltd.	712.336	2.79	0.000	/	56.800	2.72	0.000	/	289.020	3.21	0.000	/	16.000	2.72	0.000	/	1,074.156
6	Hangzhou Qingfeng Import and Export Co., Ltd.	553.440	2.99	0.000	/	206.800	3.64	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	760.240
7	Yangzhou Pioneer Chemical Co., Ltd.	0.000	/	0.000	/	0.000	/	0.000	/	614.900	3.78	0.000	/	0.000	/	0.000	/	614.900
8	Suzhou Everfortune Imp. & Exp. Co., Ltd.	0.000	/	0.000	/	311.740	4.02	0.000	/	150.920	3.80	0.000	/	0.000	/	0.000	/	462.660
9	Jiangsu Trustchem Co., Ltd.	0.000	/	0.000	/	455.558	3.19	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	455.558
10	Binzhou Qiaochang Huanyu Import and Export Co., Ltd.	0.000	/	0.000	/	396.000	3.72	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	396.000
11	Eastchem Co., Ltd.	0.000	/	0.000	/	0.000	/	0.000	/	46.879	3.02	16.000	3.74	286.580	3.75	26.050	3.92	375.509
12	China Jiangsu International Economic Technical Cooperation Group Co., Ltd.	116.160	4.06	0.000	/	158.620	3.92	0.000	/	66.000	3.54	0.000	/	0.000	/	0.000	/	340.780
13	Nanjing Bodao Warehousing Co., Ltd.	0.000	/	0.000	/	0.000	/	0.000	/	192.000	3.38	96.000	3.20	16.000	3.59	0.000	/	304.000
14	Sino-Agri Leading Biosciences Co., Ltd.	0.000	/	0.000	/	228.800	3.78	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	228.800
15	Nanjing Red Sun Group International Trade Co., Ltd.	33.704	3.80	17.440	4.07	176.000	3.71	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	227.144
	Others	922.505	2.89	119.736	3.94	1,217.328	3.94	17.600	3.65	996.000	3.68	12.200	4.03	76.500	3.50	112.000	3.87	3,473.869
	Total	2,965.292	2.97	137.176	3.96	5,178.588	3.76	17.600	3.65	3,815.719	3.52	124.200	3.28	1,614.310	3.67	138.050	3.84	13,990.935

Note: Nuances in some data are mainly caused by rounding.

Source: China Customs & CCM

Table 3.2.3-4 China's exports of acetochlor technical and formulations by exporter, 2017

No.	Exporter	20% WP		50% EC		90% EC		92% Tech.		93% Tech.		94% Tech.		95% Tech.		97% Tech.		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	
1	Shandong Weifang Rainbow Chemical Co., Ltd.	0.000	/	671.000	2.31	971.125	3.57	0.000	/	0.000	/	0.000	/	942.600	2.88	0.000	/	2,584.725
2	Nantong Jiangshan Agrochemical & Chemicals Co., Ltd.	0.000	/	552.850	2.19	105.667	3.09	0.000	/	506.180	2.60	0.000	/	0.000	/	0.000	/	1,164.699
3	Shandong Binnong Technology Co., Ltd.	0.000	/	196.000	2.24	671.179	3.24	0.000	/	0.000	/	0.000	/	236.000	3.07	0.000	/	1,103.179
4	Suzhou Everfortune Imp. & Exp. Co., Ltd.	0.000	/	0.000	/	744.700	3.39	0.000	/	57.860	3.38	0.000	/	0.000	/	0.000	/	802.560
5	Jiangsu Changlong Agrochemical Co., Ltd.	0.000	/	0.000	/	767.000	2.79	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	767.000
6	Hangzhou Qingfeng Import and Export Co., Ltd.	0.000	/	0.000	/	522.016	3.32	0.000	/	52.800	3.62	0.000	/	7.040	2.63	0.000	/	581.856
7	Shenzhen Honbor Industrial Co., Ltd.	0.000	/	492.320	1.82	53.904	3.36	0.000	/	17.600	2.75	0.000	/	0.000	/	0.000	/	563.824
8	Ningbo Kenova Chemical Co., Ltd.	0.000	/	0.000	/	498.960	2.97	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	498.960
9	Jiangsu Trustchem Co., Ltd.	0.000	/	0.000	/	474.106	2.81	0.000	/	10.000	2.87	0.000	/	0.000	/	0.000	/	484.106
10	Nanjing Bodao Warehousing Co., Ltd.	0.000	/	0.000	/	0.000	/	0.000	/	352.000	2.92	32.000	2.39	64.000	2.89	0.000	/	448.000
11	Nanjing Red Sun International Trading Co., Ltd.	0.000	/	0.000	/	382.118	3.25	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	382.118
12	Eastchem Co., Ltd.	0.000	/	0.000	/	0.000	/	0.000	/	69.300	2.60	0.000	/	292.500	2.74	0.000	/	361.800
13	Hangzhou Nutrichem Co., Ltd.	0.000	/	0.000	/	312.620	3.10	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	312.620
14	Zhejiang Changxing Zhongshan Import and Export Co., Ltd.	0.000	/	307.200	1.98	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	0.000	/	307.200
15	China Jiangsu International Economic Technical Cooperation Group Co., Ltd.	0.000	/	98.030	2.54	44.000	2.97	35.200	2.63	90.000	3.09	0.000	/	0.000	/	0.000	/	267.226
Others		16.000	1.82	1,510.021	2.14	2,013.056	3.12	81.600	2.61	1,748.125	2.64	0.000	/	192.600	3.30	209.800	3.12	5,771.204
Total		16.000	1.82	3,827.421	2.13	7,560.451	3.16	116.800	2.62	2,903.865	2.74	32.000	2.39	1,734.740	2.92	209.800	3.12	16,401.077

Note: Nuances in some data are mainly caused by rounding.

Source: China Customs & CCM

3.3 Export, Jan.–May 2021

Table 3.3-1 China's exports of acetochlor technical and formulations by month, Jan.–May 2021

Month	20% WP		90% EC		93% Tech.		94% Tech.		95% Tech.	
	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	0.000	/	802.821	2.91	430.682	3.13	0.000	/	285.563	2.70
2	0.000	/	800.819	3.08	522.112	3.36	32.000	3.95	16.000	2.93
3	0.000	/	39.800	3.20	64.208	3.28	0.000	/	67.600	4.46
4	12.000	3.40	145.200	3.82	32.000	3.71	0.000	/	89.252	3.39
5	0.000	/	0.000	/	0.000	/	0.000	/	38.088	2.80
Total	12.000	3.40	1,788.640	3.07	1,049.002	3.27	32.000	3.95	496.503	3.08

Note: 1. The export data of acetochlor technical and formulations in Jan.–May 2021 are incomplete.

2. The data come from Tranalysis on 6 Dec., 2021.

Source: China Customs & CCM

Table 3.3-2 China's exports of acetochlor technical and formulations by destination, Jan.–May 2021

No.	Destination	20% WP		90% EC		93% Tech.		94% Tech.		95% Tech.		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	
1	Ukraine	0.000	/	1,752.968	3.07	17.600	3.40	0.000	/	264.003	2.67	2,034.571
2	The US	0.000	/	0.000	/	745.202	3.28	0.000	/	95.220	2.76	840.422
3	Pakistan	0.000	/	0.000	/	229.200	3.19	32.000	3.95	0.000	/	261.200
4	Vietnam	12.000	3.40	0.000	/	32.000	3.71	0.000	/	65.280	3.47	109.280
5	Mexico	0.000	/	0.000	/	0.000	/	0.000	/	72.000	4.63	72.000
6	Argentina	0.000	/	0.000	/	25.000	3.14	0.000	/	0.000	/	25.000
7	Chile	0.000	/	24.085	2.91	0.000	/	0.000	/	0.000	/	24.085
8	The Dominican Republic	0.000	/	11.587	3.08	0.000	/	0.000	/	0.000	/	11.587
Total		12.000	3.40	1,788.640	3.07	1,049.002	3.27	32.000	3.95	496.503	3.08	3,378.145

Note: 1. The export data of acetochlor technical and formulations in Jan.–May 2021 are incomplete.

2. The data come from Tranalysis on 6 Dec., 2021.

Source: China Customs & CCM

Table 3.3-3 China's exports of acetochlor technical and formulations by exporter, Jan.–May 2021

No.	Exporter	20% WP		90% EC		93% Tech.		94% Tech.		95% Tech.		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	
1	Hangzhou Nutrichem Co., Ltd.	0.000	/	875.162	2.83	0.000	/	0.000	/	0.000	/	875.162
2	Yangzhou Pioneer Chemical Co., Ltd.	0.000	/	0.000	/	745.202	3.28	0.000	/	0.000	/	745.202
3	Shandong Binnong Technology Co., Ltd.	0.000	/	44.000	2.77	0.000	/	0.000	/	336.003	3.09	380.003
4	Sharda Cropchem Limited	0.000	/	110.000	3.90	0.000	/	0.000	/	95.220	2.76	205.220
5	Shandong Weifang Rainbow Chemical Co., Ltd.	0.000	/	129.492	3.09	8.000	3.57	0.000	/	0.000	/	137.492
6	Jiangsu Changlong Agrochemical Co., Ltd.	0.000	/	0.000	/	128.000	3.18	0.000	/	0.000	/	128.000
7	Limanox Investments Limited	0.000	/	123.200	3.41	0.000	/	0.000	/	0.000	/	123.200
8	Kronos Chemical Limited	0.000	/	116.600	3.33	0.000	/	0.000	/	0.000	/	116.600
9	ASA Swiss AG	0.000	/	109.999	2.93	0.000	/	0.000	/	0.000	/	109.999
10	Fader Alliance Polska Sp.Z O.O.	0.000	/	70.400	3.64	0.000	/	0.000	/	0.000	/	70.400
11	Nanjing Bioagriland Crop Care Co., Ltd.	0.000	/	70.400	3.28	0.000	/	0.000	/	0.000	/	70.400
12	Hy-Xin Agricultural Science & Technology Co., Ltd.	0.000	/	44.000	2.95	0.000	/	0.000	/	0.000	/	44.000
13	Nantong Jiangshan Agrochemical & Chemicals Co., Ltd.	0.000	/	0.000	/	35.200	3.18	0.000	/	0.000	/	35.200
14	King Elong Group Limited	0.000	/	0.000	/	0.000	/	0.000	/	35.200	3.60	35.200
15	DVA Agro GmbH	0.000	/	35.200	3.33	0.000	/	0.000	/	0.000	/	35.200
Others		12.000	3.40	60.187	3.19	132.600	3.33	32.000	3.95	30.080	3.32	266.867
Total		12.000	3.40	1,788.640	3.07	1,049.002	3.27	32.000	3.95	496.503	3.08	3,378.145

Note: 1. The export data of acetochlor technical and formulations in Jan.–May 2021 are incomplete.

2. The data come from Tranalysis on 6 Dec., 2021.

Source: China Customs & CCM

4 Consumption, 2017–2021

Acetochlor can be used for pre-emergent control of annual weeds and some broadleaf weeds in the fields of corn, cotton, peanut, soybean, etc. In 2021, the apparent consumption and actual consumption of acetochlor technical (calculated by 100% AI, the same below) kept steady compared with that of 2020. The apparent consumption was about 16,364 tonnes; the actual consumption of acetochlor technical was about 16,413 tonnes.

During 2017–2021, the apparent consumption of acetochlor technical showed a general downward trend. Policies on cutting down unit consumption of pesticides should be the main reason. Since 2015, the Ministry of Agriculture and Rural Affairs of the People's Republic of China has pushed forward the zero-growth campaign for the use of chemical fertilizers and pesticides. Statistics show that pesticide utilization rate on rice, wheat and corn in China averaged 40.60% in 2020, up about 4% compared with that in 2015.

In 2021, corn, soybean and vegetables were the three major end users of acetochlor, accounting for about 53.61%, 16.15%, 7.11% respectively, whereas in 2020, peanut was the third major end user. Currently, 50% EC and 90% EC are the major types of acetochlor single formulations applied in China; mixed formulations of acetochlor with bensulfuron-methyl, prometryn or 2,4-D butylate are also popular in domestic market.

Table 4-1 Apparent consumption of acetochlor technical in China, 2017–2021

Year	Output (calculated by 92% technical), tonne	Output (calculated by 100% AI), tonne	Export (calculated by 100% AI), tonne	Apparent consumption (calculated by 100% AI), tonne
2017	35,700	32,844	12,544	20,300
2018	30,400	27,968	11,423	16,545
2019	26,900	24,748	8,218	16,530
2020	28,500	26,220	9,672	16,548
2021	26,700	24,564	8,200	16,364

Note: The export volume in 2020 and 2021 is evaluated according to the actual consumption, output and stock evaluation.

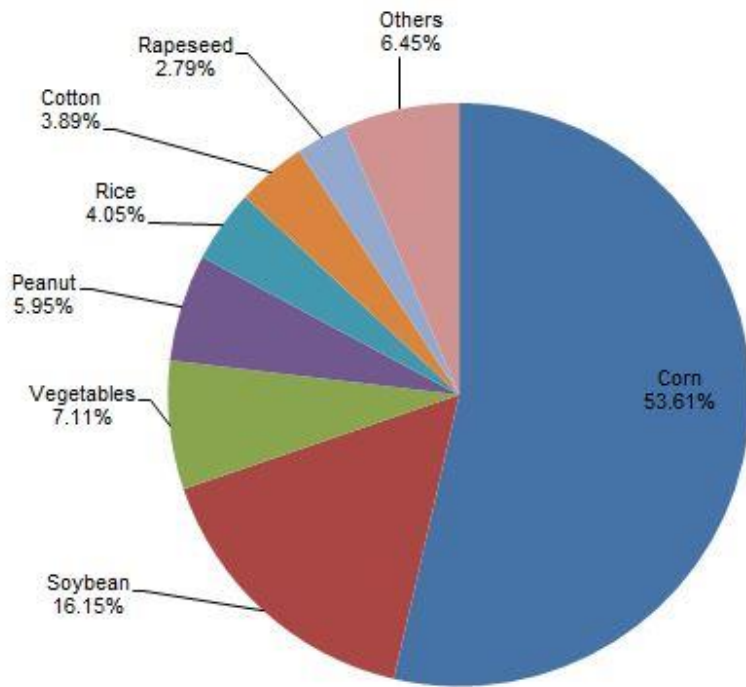
Source: China Customs & CCM

Table 4-2 Actual consumption of acetochlor in China by crop, 2021

Crops	Consumption volume (calculated by 100% AI), tonne
Corn	8,798
Soybean	2,651
Vegetables	1,167
Peanut	977
Rice	664
Cotton	638
Rapeseed	458
Others	1,059
Total	16,413

Source: CCM

Figure 4-1 Actual consumption pattern of acetochlor in China by crop, 2021



Source: CCM

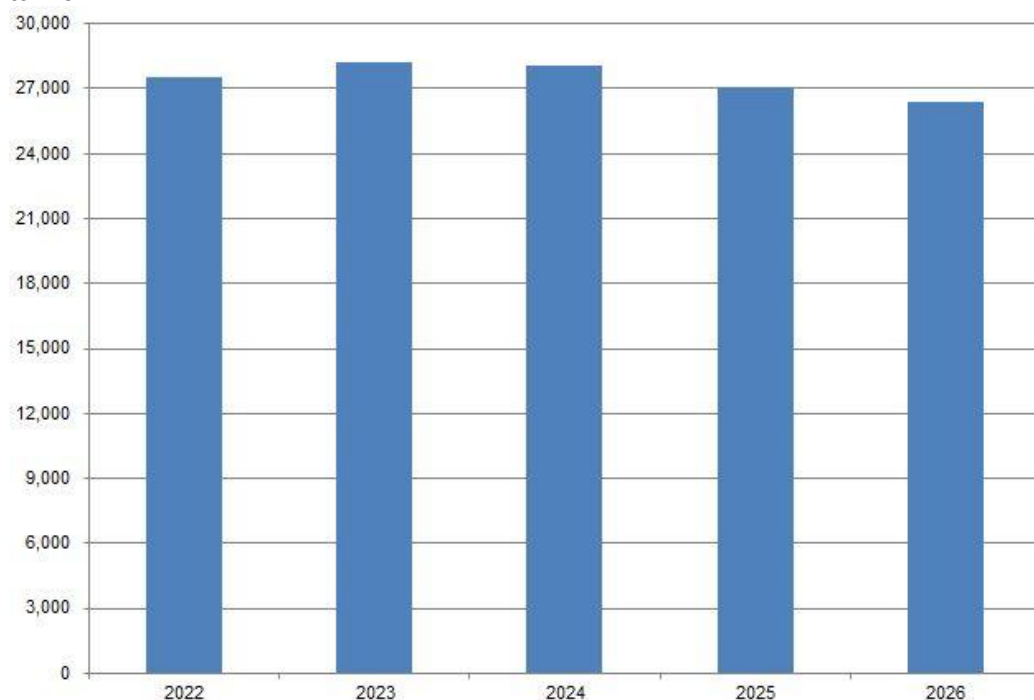
5 Outlook, 2022–2026

In 2021, total capacity of acetochlor technical in China was 87,000 t/a, and the output was about 26,700 tonnes. From 2017 to 2021, the capacity in China decreased in general, so did domestic demand for acetochlor technical. China's acetochlor industry saw some setbacks in this period. It is unlikely to see an increase in the capacity of acetochlor technical in China in the next five years (2022–2026); the capacity may even go down further in the long run.

The output of acetochlor technical in China is estimated to go up in 2022–2024. In recent two years, pesticide supply chain has been continuously disrupted by public events and extreme weather, and the inventory of acetochlor technical has been basically exhausted. It is estimated that there would be a tight supply of acetochlor technical in the future, which will boost the output in the short run. Furthermore, with increasing planting areas of cotton and soybean in China, more acetochlor technical will be needed in the three years to come.

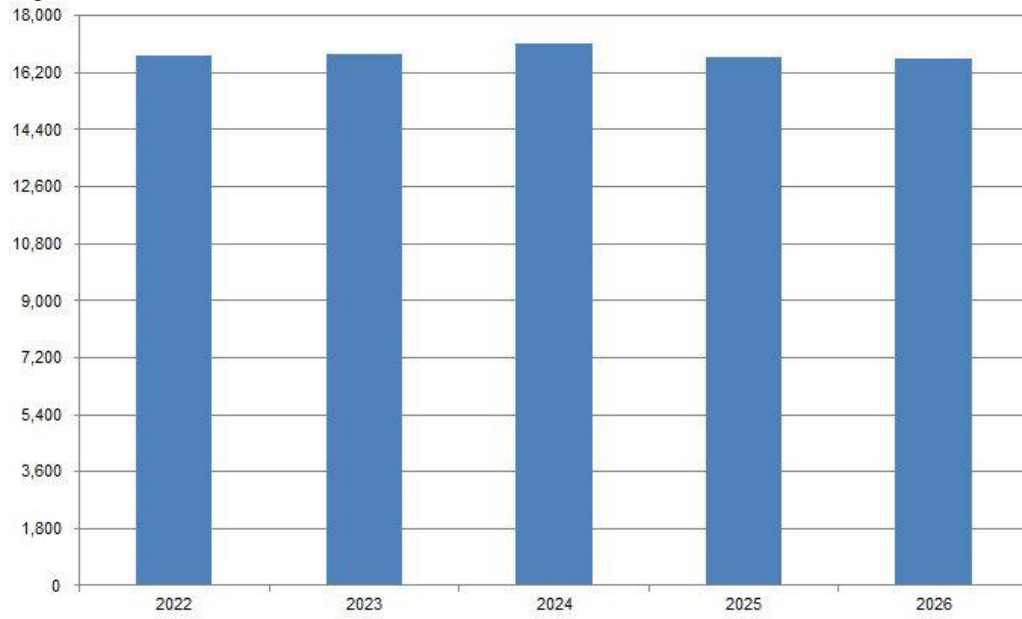
Nevertheless, domestic demand for acetochlor technical may decrease after 2024. That's mainly because cutting down on unit consumption of pesticides on crops has become mainstream in China these years. Moreover, competition from its substitutes, such as metolachlor technical, is also a concern. Therefore, it is estimated that the supply and demand of acetochlor technical in China will go down after some growth in the short term.

Figure 5-1 Supply (output) trend of acetochlor technical (calculated by 92% technical) in China, 2022–2026, tonne



Source: CCM

Figure 5-2 Demand trend of acetochlor in China, 2022–2026, tonne



Note: The volume is based on consumption volume calculated by 100% AI.
Source: CCM

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