

# **2,4-D Survey in China**

**The Tenth Edition**

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**Researched & Prepared by:**

**Kcomber Inc.**

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## Contents

<b>Executive summary .....</b>	<b>1</b>
<b>Scope and methodology .....</b>	<b>2</b>
<b>1 Brief introduction to 2,4-D in China .....</b>	<b>4</b>
<b>2 Production of 2,4-D in China.....</b>	<b>6</b>
2.1 Technology .....	6
2.2 Key raw materials .....	8
2.3 Registration .....	9
2.4 Capacity and output, 2019–2023E.....	13
2.5 Key producers .....	14
<b>3 Price &amp; exports of 2,4-D in China, 2021–Q3 2023 .....</b>	<b>16</b>
3.1 Price .....	16
3.2 Exports .....	17
3.2.1 Details in 2021–Q3 2023.....	18
<b>4 Consumption of 2,4-D in China, 2019–2023.....</b>	<b>32</b>
4.1 Consumption overview, 2019–2023.....	32
4.2 Share by crop, 2023 .....	33
4.3 Share by region, 2023.....	34
<b>5 Forecast on 2,4-D industry in China, 2024–2028 .....</b>	<b>35</b>
5.1 Key influencing factors .....	35
5.2 Forecast on supply and demand.....	36
<b>6 Conclusions .....</b>	<b>37</b>

### LIST OF TABLES

Table 1-1 China's imports and exports of pesticides and herbicides, 2019–2021
Table 1-2 Domestic output and consumption of 2,4-D technical and related shares in herbicides, 2019–2021
Table 2.3-1 Valid registrations of 2,4-D in China, as of Oct. 2022
Table 2.3-2 Valid registration of 2,4-D technical in China, as of Oct. 2022
Table 2.5-1 Production of major 2,4-D technical producers in China, 2018–2022
Table 3.2.1-1 Monthly exports of 2,4-D technical and formulations in China, H1 2022
Table 3.2.1-2 Monthly exports of 2,4-D technical and formulations in China, 2021
Table 3.2.1-3 Monthly exports of 2,4-D technical and formulations in China, 2020
Table 3.2.1-4 Export volume of 2,4-D technical and formulations from China by destination in H1 2022, tonne
Table 3.2.1-5 Export volume of 2,4-D technical and formulations from China by destination in 2021, tonne
Table 3.2.1-6 Export volume of 2,4-D technical and formulations from China by destination in 2020, tonne
Table 3.2.1-7 Export volume of 2,4-D technical and formulations from China by exporter in H1 2022, tonne
Table 3.2.1-8 Export volume of 2,4-D technical and formulations from China by exporter in 2021, tonne
Table 3.2.1-9 Export volume of 2,4-D technical and formulations from China by exporter in 2020, tonne

Table 3.2.1-10 Export volume of 2,4-D technical and formulations from China by producer in H1 2022, tonne

Table 3.2.1-11 Export volume of 2,4-D technical and formulations from China by producer in 2021, tonne

Table 3.2.1-12 Export volume of 2,4-D technical and formulations from China by producer in 2020, tonne

Table 4.1-1 Production, export, import and apparent consumption of 2,4-D in China, 2019–2022E

## **LIST OF FIGURES**

Figure 1-1 Output and share of herbicides in China's pesticide industry, 2016–2022E

Figure 2.4-1 Capacity and output of 2,4-D technical in China, 2018–2022E

Figure 3.1-1 Annual ex-works price of 96% 2,4-D technical in China, 2018–2021

Figure 3.1-2 Monthly ex-works price of 96% 2,4-D technical in China, Jan. 2020–Sept. 2022

Figure 3.2-1 Annual export price of main specifications of 2,4-D technical and formulations in China, 2016–H1 2022

Figure 3.2-2 Annual export volume of 2,4-D technical and formulations in China, 2017–H1 2022

Figure 4.1-1 Actual consumption volume of 2,4-D (converted into 100% technical) in China, 2019–2022E

Figure 4.2-1 Consumption of 2,4-D formulations (converted into 100% technical) by crop in China, 2022E

Figure 4.3-1 Consumption of 2,4-D formulations (calculated by 100% technical) in China by region, 2022E

Figure 5.2-1 Forecast on supply of 2,4-D technical (calculated by 100% technical) in China, 2023–2027

Figure 5.2-2 Forecast on demand for 2,4-D formulations (calculated by 100% technical) in China, 2023–2027

## 1. Introduction

2,4-D products, with a history of production and application exceeding 30 years in China, enjoy a stable market demand. Farmers prefer to use 2,4-D as a herbicide in wheat-, corn- and rice-growing fields or as a plant growth regulator applied on eggplant, tomato, pumpkin, watermelon and etc.

China's 2,4-D output was recorded a year-on-year decline in 2021. The situation improved in 2022 when China launched the implementation of enhancement project for soybean and oilseed production; this project has continued to promote in 2023, considering the soybean- and oilseed-planting areas increased. In 2022, the market price of 2,4-D technical dropped from the high level in late 2021 and kept the downtrend in 2023. Meanwhile, when Chinese genetically modified (GM) herbicide-tolerant crops (mainly corn and soybean) are worth of wide cultivation and promotion, boosting the demand for herbicides for GM herbicide-tolerant crops, China still maintained a quite stable supply of 2,4-D technical for markets home and abroad basically the coming one or two years.

In this report, CCM will do 2,4-D Survey in China 2023 from the following aspects:

- ✓ Production of 2,4-D
- ✓ Price & exports
- ✓ Consumption
- ✓ Forecast on 2,4-D industry in China

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## 2. Scope and methodology

This report aims to demonstrate the development of 2,4-D industry in China and analyse the factors behind it. There are almost complete records and comments about technology, production, price, exports and consumption of this product in the report.

Region: China

Time scope: 2019–2023

### Methodology

The report is drafted by diverse methods as follows:

#### 1. Desk research

The sources of desk research are various, including published magazines, journals, government statistics, industrial statistics, customs statistics, association seminars as well as information from the Internet. A lot of work has gone into the compilation and analysis of the obtained information. When necessary, checks have been made with Chinese suppliers regarding market information such as key producers, key end users, production and demand.

#### 2. Telephone interview

CCM has carried out extensive telephone interviews in order to survey the actual market situation of 2,4-D industry in China.

Interviewees cover:

- Key producers
- Key traders
- Associations
- Experts

#### 3. Network research

CCM adopted network to contact with players in the industry through B2B websites and software. CCM also obtained registration information via network.

### Data processing and presentation

The data collected and compiled are sourced from:

- CCM's database
- Published articles from periodicals, magazines and journals, and third-party databases
- Statistics from governments and international institutes
- Telephone interviews with domestic producers, service suppliers, governments, etc.
- Third-party data providers
- Customs statistics
- Comments from industrial experts
- Professional databases from other sources
- Information from the internet

The data 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 took place in order to analyse the data and draw conclusions from them.

### Unit

USD: currency unit in the US

RMB: currency unit in China, also called Yuan

Tonne: ton, equal to metric ton in this report

t/a: tonne/annual or tonne/year

/t: per tonne

**Table 1 Abbreviations and full names**

<b>Abbreviation</b>	<b>Full name</b>
AS	Aqueous solution
TC	Technical material
TK	Technical concentrate
EC	Emulsifiable concentrate
ICAMA	Institute for the Control of Agrochemicals, Ministry of Agriculture and Rural Affairs

Source: CCM

**Table 2 USD/CNY exchange rate, Jan., 2016–Nov., 2023**

<b>Year</b>	<b>Jan.</b>	<b>Feb.</b>	<b>March</b>	<b>April</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug.</b>	<b>Sept.</b>	<b>Oct.</b>	<b>Nov.</b>	<b>Dec.</b>	<b>Average</b>
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
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
2022	6.3794	6.3580	6.3014	6.3509	6.5672	6.6651	6.6863	6.7467	6.8821	7.0992	7.2081	7.1225	6.6972
2023	6.9475	6.7492	6.9400	6.8805	6.9054	7.0965	7.2157	7.1283	7.1788	7.1789	7.1778	7.1104	7.0422

Source: The People's Bank of China

### 3. Executive summary

2,4-D products, with a history of production and application exceeding XXXXX years in China, enjoy a stable market demand. Farmers prefer to use 2,4-D as a herbicide in wheat-, corn- and rice-growing fields or as a plant growth regulator applied on eggplant, tomato, pumpkin, watermelon, etc. However, the production of XXXXX products has been banned in China since late XXXXX.

In XXXX, China's 2,4-D capacity reached XXXXX t/a and the output (converted to technical XXXXX) slipped to XXXXX tonnes. The ex-works price of 2,4-D technical dropped from the high level in late XXXX and kept the downtrend in XXXXX.

Most 2,4-D products, including XXXXX, are for export. Although XXXXX products were withdrawn from Chinese market from XXXXX, demand of the replacements (such as XXXXX) still allows 2,4-D to enjoy a promising prospect in China. In XXXXX, the expansion of new crop-growing area in China and North American markets is expected and the demand for 2,4-D is likely to increase at home and abroad in the coming future.

## 4. What's in this report

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

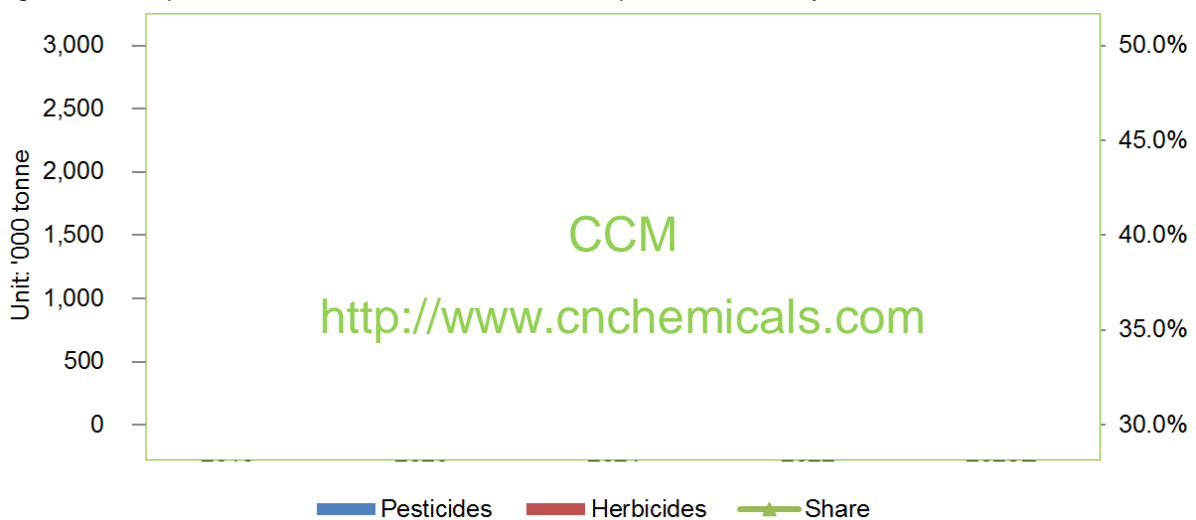
### 1 Brief introduction to 2,4-D in China

#### - Brief introduction to herbicide industry

China is now the world's largest exporter of pesticides, and herbicide is an important pesticide category. In recent years, amid the rising labour cost and the pursuit of higher efficiency and cost-effectiveness, herbicides have been widely used in agricultural production. However, the abuse of herbicides can easily lead to destruction of ecological environment and soil fertility. Therefore, in recent years multiple environmental protection policies rolled out and the output of herbicides in China showed a general downward trend. In 2022, China's herbicide output was XXXX tonnes (converted to XXXX technical), down by XXXX year on year. According to National Bureau of Statistics of China, the output of pesticides (by XXXX technical) reached XXXX tonnes in XXXX. It is expected that the 2023 output will be close to or lower than that in 2022, reaching XXXX tonnes. As for herbicides, the largest pesticide category in China will stand at XXXX + of all pesticides, with the average output proportions in 2019–2023 about XXXX.

In terms of export in 2022, China's pesticides marked an average price hike YoY, with the value increasing by XXXX YoY yet the volume (actual volume, the same hereinafter) dropping by XXXX YoY. Specifically, China exported XXXX tonnes of pesticides at a total value of USD XXXX. During XXXX, XXXX tonnes of herbicides were exported, accounting for XXXX of the total and amounting to USD XXXX; the total value of herbicide imports was USD XXXX with a volume of XXXX tonnes (=XXXX of the total).

Figure 1-1 Output and share of herbicides in China's pesticide industry, 2019–2023E



*Note: All the volumes are calculated by 100% technical.*

*Source: National Bureau of Statistics of China*



## - Position of 2,4-D in herbicide industry

Table 1-2 Domestic output and consumption of 2,4-D technical and related shares in herbicides, 2019–2022

Year	Output, tonne		Output share	Consumption, tonne		Consumption share
	Herbicides (100% technical)	2,4-D (100% technical)		Herbicides (100% technical)	2,4-D (100% technical)	
2019	XXX	XXX	XXX	XXX	XXX	XXX
2020	XXX	XXX	XXX	XXX	XXX	XXX
...	...	...	...	...	...	...
2022	XXX	XXX	XXX	XXX	XXX	XXX

Source: CCM

## 2 Production of 2,4-D in China

### 2.1 Technology

...

### 2.2 Key raw materials

...

### 2.3 Registration

As of Dec. 2023, the number of registered 2,4-D products reached XX.

Table 2.3-1 Valid registrations of 2,4-D in China, as of Dec. 2023

Specification		Number of registrations
Single formulations	EC	XXX
	AS	XXX
	Others	XXX
Mixed formulations		XXX
Technical	2,4-D	XXX
	2,4-D-ethylhexyl	XXX
	2,4-D butylate	XXX
	2,4-D Na	XXX
	2,4-DB	XXX
<b>Total</b>		XXX

Source: Institute for the Control of Agrochemicals, Ministry of Agriculture (ICAMA)

Table 2.3-2 Valid registration of 2,4-D technical in China, as of Dec. 2023

No.	Registration Code	Company (CN)	Company	Active ingredients	Content	Expiry Date
1	XXX	XXX	XXX	XXX	XXX	XXX
2	XXX	XXX	XXX	XXX	XXX	XXX
...	...	...	...	...	...	...
XX	XXX	XXX	XXX	XXX	XXX	XXX

Source: ICAMA

## 2.4 Capacity and output, 2019–2023E

In 2023, China has the 2,4-D production scale of about XXX t/a.

...

Figure 2.4-1 Capacity and output of 2,4-D technical in China, 2019–2023E



Note: All the volumes of output are calculated by 100% technical.

Source: CCM

## 2.5 Key producers

At present, most 2,4-D technical producers in China are still located in XX Province even though it has been under great pressures of environmental protection in recent years. XX has always been a crucial domestic pesticide production base and has advantages on abundant raw material supply, convenient transportation and large consumption.

Picture 2.5-1 Capacity distribution of top six 2,4-D technical manufacturers in China by region, 2023



Source: CCM

...

Table 2.5-1 Production of major 2,4-D technical producers in China, 2019–2023E

No.	Producer	Location	Status, as of Dec. 2023	Capacity, t/a					Output, tonne				
				2023E	2022	2021	2020	2019	2023E	2022	2021	2020	2019
1	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
3	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
...													

Source: CCM

### 3 Price & exports of 2,4-D in China, 2021-Q3 2023

#### 3.1 Price

In China, with production and operation resumption of 2,4-D manufacturers, the annual ex-works price of 2,4-D significantly dropped in XXX and even further in XXX. However, domestic production of 2,4-D technical was affected by policies, such as the Dual Control on energy consumption and Power Rationing (as of XXX XXX) which gave rise to the supply shortage and intermittent suspension of pesticide production in Zhejiang and Jiangsu provinces, etc.; the average ex-works price in XXX hit USD XXX /t, up by XXX QoQ.

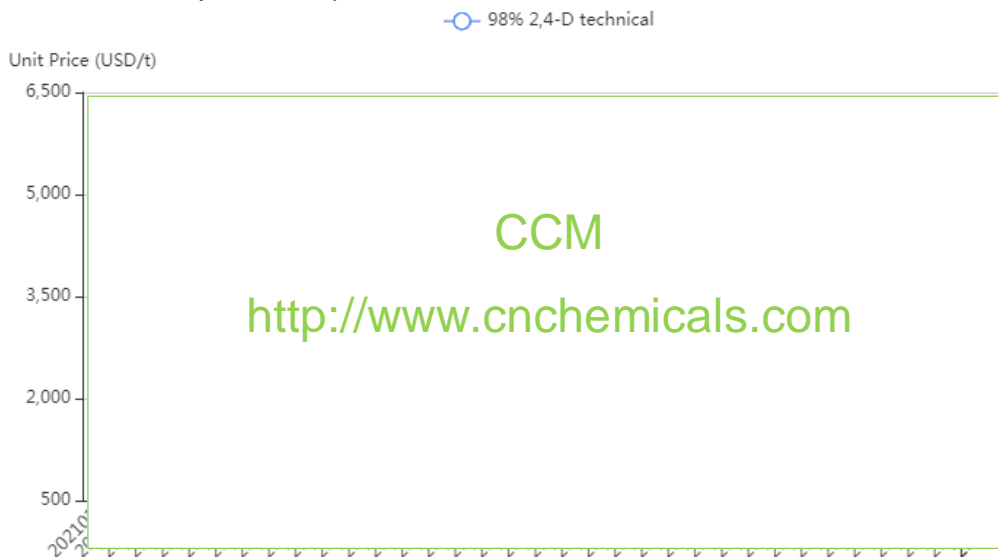
...

Figure 3.1-1 Annual ex-works price of 98% 2,4-D technical in China, 2019–2022



Source: CCM

Figure 3.1-2 Monthly ex-works price of 98% 2,4-D technical in China, Jan. 2021–Dec. 2023



Source: CCM

### 3.2 Exports

...

Chinese pesticide suppliers answer to about 70% of global demand. During XXXXXX, export prices in XXX were the lowest; the export price of all 2,4-D products peaked in XXX—prices for XXXXX on average were USDXXX/t, USDXXX/t and USDXXX/t, separately, thanks to the easing global COVID-19 pandemic, China's domestic economy has continued to recover from the production disruption in early XXX.

Figure 3.2-1 Annual export price of main specifications of 2,4-D technical and formulations in China, 2019–Q3 2023



Source: Tranalysis

### - Exports of 2,4-D

Figure 3.2-2 Annual export volume of 2,4-D technical and formulations in China, 2019–Q3 2023



Source: Tranalysis

### 3.2.1 Details in 2021-Q3 2023

#### -By months

Table 3.2.1-1 Monthly exports of 2,4-D technical and formulations in China, Q1–Q3 2023

Month	2,4-D amine salt 600g/L SL		2,4-D amine salt 720g/L SL		2,4-D amine salt 80% SG		2,4-D amine salt 860g/L SL		2,4-D amine salt 96% SG		95% 2,4-D technical		96% 2,4-D technical		98% 2,4-D technical		Value, million USD	
	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg	Volume, tonne	Price, USD/kg		
Jan.	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Feb.	XXX	XXX	XXX	XXX	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	XXX	XXX	XXX	XXX
April	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	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
<b>Total/Ave</b>	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

Source: Tranalysis...

...

**-By destination**

Table 3.2.1-4 Export volume of 2,4-D technical and formulations from China by destination, Q1–Q3 2023, tonne

No.	Country	2,4-D amine salt 600g/L SL	2,4-D amine salt 720g/L SL	2,4-D amine salt 80% SG	2,4-D amine salt 860g/L SL	2,4-D amine salt 96% SG	304g/L SL	95% 2,4-D TC	98% 2,4-D TC	Total
1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
3	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
...										

Source: Tranalysis...

...

**-By exporter**

Table 3.2.1-7 Export volume of 2,4-D technical and formulations from China by exporter, Q1–Q3 2023, tonne

No.	Exporter	2,4-D amine salt 600g/L SL	2,4-D amine salt 720g/L SL	2,4-D amine salt 80% SG	2,4-D amine salt 860g/L SL	2,4-D amine salt 96% SG	304g/L SL	95% 2,4-D TC	98% 2,4-D TC	Total
1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
3	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
...										

Source: Tranalysis

...



**-By manufacturer**

Table 3.2.1-10 Export volume of 2,4-D technical and formulations from China by producer, Q1–Q3 2023, tonne

No.	Producer	2,4-D amine salt 600g/L SL	2,4-D amine salt 720g/L SL	2,4-D amine salt 80% SG	2,4-D amine salt 860g/L SL	2,4-D amine salt 96% SG	304g/L SL	95% 2,4-D TC	98% 2,4-D TC	Total
1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
3	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
...										

Source: Tranalysis

...

## 4 Consumption of 2,4-D in China, 2019–2023

### 4.1 Consumption overview, 2019–2023

...

### 4.2 Share by crop, 2023

Figure 4.2-1 Consumption of 2,4-D formulations (converted into 100% technical) by crop in China, 2023



*Note: Due to rounding, the total may not equal 100.00%.*

*Source: CCM*

### 4.3 Share by region, 2022

Figure 4.3-1 Consumption of 2,4-D formulations (calculated by 100% technical) in China by region, 2022E



Source: CCM

## 5 Forecast on 2,4-D industry in China, 2024–2028

### 5.1 Key influencing factors

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### 5.2 Forecast on supply and demand

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## 6 Conclusions

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

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