

Pesticide Price Analysis in China in Jan.–July 2023

**The Eighth Edition
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Kcomber Inc.

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Executive summary

Since H2 2022, China's pesticide market prices followed the downtrend of international food price, which is predicted to sustain in the short term; in the long run, pesticide is of stable growth momentum.

In H1 2023, the total of pesticide production in China decreased overall, dropped by 5.75% year on year. Following global pesticide market downturn, performance reports released by listed enterprises for H1 2023 had shown significant slow-down growths on pesticide revenue and profit, which is estimated to carry over to the next half year.

As of Aug. 2023, ex-works price of pesticide hovered at a low level. Specifically, part insecticides recorded a slight rally in price on low operating rate; while prices of herbicides (except for glyphosate) and fungicides kept going down.

Methodology

This report is concerning price analysis of pesticides in China in Jan.–July 2023. It is drafted by diverse methods as follows:

- 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 agrochemical players.

- Internet

CCM contacted with players in the domestic agrochemical industry through B2B websites and software as well as obtained registration information on the internet.

- Data processing and presentation

The data collected and compiled are sourced from:

- China Crop Protection Industry Association
- CCM's database
- Published articles in periodicals, magazines, journals and third-party databases
- Statistics from governments and international institutes
- Telephone interviews with domestic producers, joint ventures, service suppliers and governments
- Third-party data providers
- 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 were held in order to analyse the data and draw the conclusions.

Table 0-1 USD/CNY exchange rate, Jan. 2017–Aug. 2023

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	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
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	-	-	-	-	6.9829

Source: The People's Bank of China

1 Overview of China's pesticide industry as of July 2023

1.1 Supply and demand of pesticides

Presently, China has become the world's most prime production base of pesticide intermediates and off-patent pesticide technicals, accounting for nearly 70% capacity of pesticide technical in the world. Most of the pesticide technical produced in China are exported for further processing into pesticide formulations by international companies. According to the data from ICAMA, by the end of 2022, the amount of valid pesticide active ingredients registered in China was 727, 62 more than that in 2016, and total approved pesticides topped 45,000, added by almost 10,000 from that in 2016.

Since 2011, China exports 0.8–1 million tonnes of pesticide technicals to other countries annually, meanwhile steadily supplying for domestic agricultural production. From 2020 to 2022, the exports took up at least 50% of the total output of pesticides. However, from H1 2022–H1 2023, world economy experienced hard-pressed downturn, which was carried over to the pesticide industry. According to data from National Bureau of Statistics of China and China Customs, the output of chemical pesticide products came in at 1.23 million tonnes in H1 2023, down by 5.75% YoY, with the share of pesticide exports shrinking to 46.45%.

Nonetheless, against the backdrop of high prominence on food security, pesticide demand remains growth potential; part of the buzzworthy products, e.g. chlorantraniliprole technical, frequently sent out news about newly added capacity, and the overall supply of domestic pesticides will maintain steady.

Table 1.1-1 Pesticide productions and exports in China, 2011–H1 2023

Year	Production, tonne	Export volume, tonne	Share of export
2011	2,648,700	834,400	31.50%
2012	3,549,100	991,500	27.94%
2013	3,190,000	1,019,200	31.95%
2014	3,744,000	1,024,400	27.36%
2015	3,741,000	925,100	24.73%
2016	3,778,300	875,500	23.17%
2017	2,940,900	936,700	31.85%
2018	2,082,800	817,600	39.25%
2019	2,253,900	976,000	43.30%
2020	2,148,000	1,127,600	52.50%
2021	2,498,500	1,527,200	61.12%
2022	2,497,000	1,450,000	58.07%
H1 2023	1,230,000	571,382	46.45%

Note: 1. All the volumes in the table are calculated by 100% technical. 2. Pesticide refers to chemical pesticide product. 3. The export share refers to the proportion for technical exports to total output.

Source: National Bureau of Statistics of China, China Customs and CCM

1.2 Overall price of pesticides

Closely bound up with grain cultivation, China's most pesticides saw prices change in pace with that of food. In H1 2020–H1 2022, the international food price skyrocketed, spurring price spike of pesticides. Entering H2 2022, both international food price and China's pesticide product price started a downturn, with the policy ease on the fronts of trade, production, finance, etc., such as Russia and Ukraine's comebacks on international food market, successional untie of trade regulation policies on food, slipping energy price against raising interests rates, and China's all-round removal of COVID-19 pandemic lockdown.

According China Crop Protection Industry Association (CCPIA), the China Agrochemical Price Index (CAPI) experienced a plunge by 46.61% from Jan. 2022 to July 2023. By category, the CAPI of herbicides rolled down to 90.22 in July 2023, slumping by 53.78% from 195.20 in Jan. 2022, a decline wildly steeper than that of insecticides (32.46%) and fungicides (29.26%), the CAPI of which registered 96.29 and 96.61 respectively.

In H1 2022, compared with overseas market, domestic pesticide supply presented stability. In Q3, influenced by arrested logistics, upstream technical producers ramped up stocking up of goods, yet the downstream demand remained sluggish; only a few products like pyraclostrobin and azoxystrobin were in tight supply and priced up due to irregular operation of upstream raw material producers. In Q4, continuous weak demand led to sharper decrease in prices, most of which marked a 20%–30% drop from those in early 2022, with some even down by 40%.

In Jan.–Feb. 2023, pesticide technical witnessed a short stable price due to Chinese New Year holiday. From March–June, the general weak market for pesticides persisted, and most products went downhill in price. Inventory stood high with stagnant consumption, which had resulted in drastic decline in price and bleak trade volume, leaving the whole industry on the rack. As per semi-annual reports from multiple listed companies in H1 2023, growths in revenue and profit had slackened off in the industry, which is expected to sustain in H2 2023.

According to CCM's monitoring data of 88 pesticide technical products, in July 2023, apart from the price uptick of glyphosate, many other herbicides like bensulfuron-methyl, pretilachlor, acetochlor and glufosinate-ammonium maintained price downtrend. With regards to insecticides, owing to intense supply on production suspension of part producers, imidacloprid and acetamiprid saw price nudge up by 1.00% and 1.22% MoM respectively; price of chlorpyrifos grew by 8.29% MoM, and that of lambda-cyhalothrin registered a slight MoM increase of 2.54%, with increasing attention from downstream. As for fungicides, the monitored products witnessed an overall price downturn, with some marked by a MoM decrease more than 8%, such as those of hymexazol, dimethomorph and azoxystrobin technicals.

Table 1.2-1 China Agrochemical Price Index (CAPI), July 2022–July 2023

Month	Pesticides	Herbicides	Insecticides	Fungicides
July 2022	152.14	169.29	128.68	117.38
Aug. 2022	152.26	169.70	128.49	116.75
Sept. 2022	147.77	162.68	127.42	117.12
Oct. 2022	147.73	162.64	126.64	118.51
Nov. 2022	139.84	151.29	122.51	119.06
Dec. 2022	136.84	149.22	116.91	117.02
Jan. 2023	135.16	145.04	120.67	116.03
Feb. 2023	126.91	135.08	115.49	111.99
March 2023	115.53	120.03	106.41	110.55

Month	Pesticides	Herbicides	Insecticides	Fungicides
April 2023	105.11	105.78	100.47	108.89
May 2023	97.33	94.00	104.67	100.22
June 2023	87.55	83.43	91.57	100.45
July 2023	92.93	90.22	96.29	96.61

Source: China Crop Protection Industry Association (CCPIA)

2 Price analysis of selected herbicides in China, Jan.–July 2023

2.1 Glyphosate

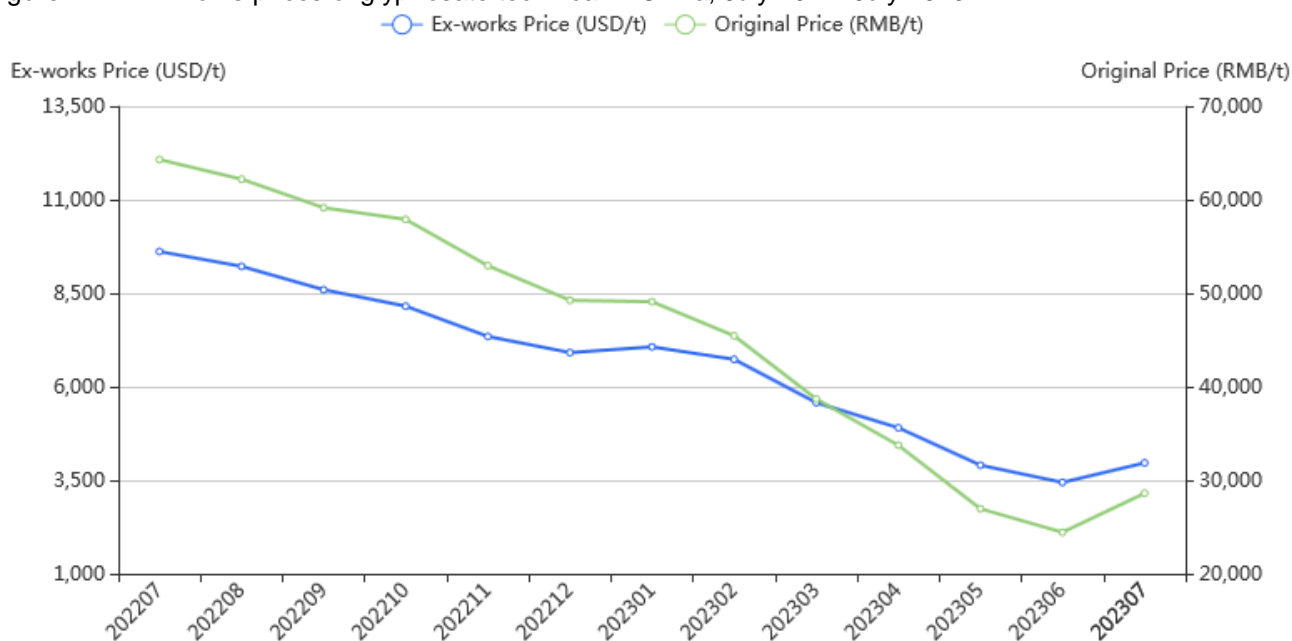
The ex-works price of glyphosate technical slid significantly during 2022–H1 2023 but hinting a small recovery in Q3 2023, considering that the demand for pesticides increases amidst extreme weather.

According to CCM's monitoring data, the year of 2022 had seen glyphosate price dropping, to USD6,915/t at the end of Dec., a fall of 45.08% YoY. July 2023 started to see a reversal from the downtrend from late 2022 to H1 2023, once bottoming out in the month of July, reaching USD3,966/t, up by 15.17% MoM, as domestic inventory kept slipping and overseas demand increased. Meanwhile, the production operating rate of producers subdued, leading to limited orders accepted by some producers in the downstream, formulation production for new orders has been scheduled till August.

Forecasts on supply, demand and price in H2 2023

- **Supply:** The capacity utilisation of glyphosate production will remain at low end;
- **Demand:** Rigid demand for pesticide use, coupling with production suspension from factory incidents of overseas competitor, is conducive to shifting some global demand to China and accelerating consumption of domestic stocks; in addition, the effects of the El Nino weather has raised demand for agrochemicals, and the pesticide sector will see an overall demand recovery in Q3;
- **Price:** In general, the ex-works price of glyphosate technical is expected to rise first and then stabilise.

Figure 2.1-1 Ex-works prices of glyphosate technical in China, July 2022–July 2023



Source: CCM

2.2 Glufosinate-ammonium

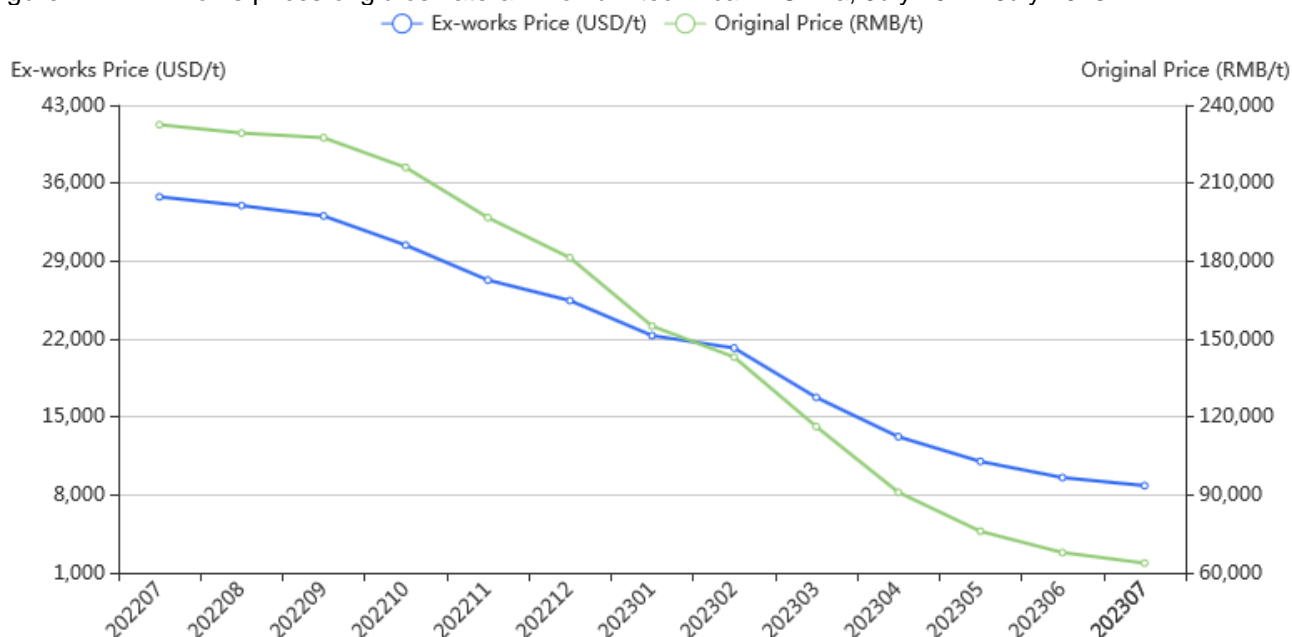
In July 2023, the ex-works price of glufosinate-ammonium technical marked a 74.6% YoY plummet and it is estimated to retain weak trend in Q3 2023.

According to CCM's monitoring data, the ex-works price of 95% glufosinate-ammonium technical diminished to USD25,455/t in Dec. 2022, a reduction of 6.75% MoM and 46.4% YoY. Entering 2023, the price of 95% glufosinate-ammonium technical kept going down, by 60.4% from USD22,310/t in Jan. to USD8,834/t in July; the July price also showed a fall of 7.54% MoM or 74.60% YoY, given the growing capacity built and a weak demand.

Forecasts on supply, demand and price in H2 2023

- **Supply:** The market will continue to face excessive supply and fierce price competition, and is expected to see more capacities put into operation in the near future. For example,
 - Lier Chemical Co., Ltd. (Sichuan Lier, stock code: 002258), with 15,400 t/a of active capacity for glufosinate-ammonium technical, is building 3,000 t/a new capacity in its Guang'an base (7,000 t/a existing capacity), approved in this Feb. for construction of 10,000 t/a glufosinate-p by biochemical process in Jingzhou base, and planning trial production for 20,000 t/a glufosinate-p project in Jinshi base.
 - Jiangsu Changqing Agrochemical Co., Ltd. (Jiangsu Changqing, stock code: 002391)'s 3,500 t/a glufosinate-ammonium technical project commenced in Q4 2022 and is due for completion in Q4 2023. Notably, it might be put off to enter production in 2024, according to the company's response on the interactive platform with investors on 27 June, 2023.
- **Demand:** The market will remain sluggish in trading, in which buyers mainly take orders for rigid replenishment with wait-and-see attitude;
- **Price:** Generally, the price of glufosinate-ammonium technical is estimated to fluctuate around USD9,000/t in H2 2023.

Figure 2.2-1 Ex-works prices of glufosinate-ammonium technical in China, July 2022–July 2023



Source: CCM

2.3 Acetochlor

From Jan. to July 2023, the ex-works price of acetochlor technical marked a sharp drop of 29.95% from a high level; a moderate decline is expected to follow in H2.

According to CCM's monitoring data, the annual ex-works price of acetochlor technical was up by 31.4% to USD6,533/t in 2022 from USD4,972/t in 2021. Partly due to restricted logistics, the price took a downturn from a high level, falling by 29.95% to USD4,033/t in July 2023 from Jan. 2023.

Forecasts on supply, demand and price in H2 2023

- Supply: In the short term, domestic supply will be curtailed due to low operating load from equipment suspension;
- Demand: Acetochlor technical is under a dull season with limited demand, which has not looked up yet;
- Price: In general, the price of acetochlor technical will remain flat with a tendency to fall in H2.

Figure 2.3-1 Ex-works prices of acetochlor technical in China, July 2022–July 2023



Source: CCM

2.4 Pendimethalin

As of July 2023, the ex-works price of pendimethalin technical stood high, despite a decrease of 8.05% from Jan.–July 2023. For H2 2023, price of this product is estimated to fluctuate peacefully.

According to CCM's monitoring data, the ex-works price of 96% pendimethalin technical hovered between USD8,500/t and USD9,500/t, with an annual price of USD9,479/t in 2022, up by 18.76% from the average USD7,982/t in 2021. The high-position price of pendimethalin technical hit USD9,406/t averagely in Jan. and Feb. 2023, and then it started to retreat in March. In July 2023, the ex-works price landed at USD8,523/t, down by 1.81% MoM and 10.26% YoY to the level seen before China's implement of "dual control (on total energy consumption and intensity)" that had caused price surges in most pesticide technicals in the country in Q4 2021.

Forecasts on supply, demand and price in H2 2023

- **Supply:** The industrial capacity utilisation of pendimethalin technical will maintain at a low level;
- **Demand:** With overseas orders gradually sent out and the closing of stocking-up for cotton field, demand for pendimethalin technical might turn dull;
- **Price:** Overall, pendimethalin technical, a substitute for high-toxicity and high-residue pesticides like trifluralin and acetochlor, is unlikely to see tumbling price. The ex-works price of pendimethalin technical is estimated to stand at around USD8,500/t in H2 2023; for the long term, the price is expected to rise with continuous tight supply.

Figure 2.4-1 Ex-works prices of pendimethalin technical in China, July 2022–July 2023



Source: CCM

2.5 Trifluranlin

The ex-works price of trifluranlin technical hit recent peak at USD6,223/t in Feb. 2023 and then rolled back slowly. From August to Dec., 2023, the price is estimated to hover around USD5,000/t with slight fluctuation.

In contrast to the surge in 2021, the ex-works price of trifluralin technical continued to drop in 2022, once to the low point of USD5,272/t in Nov. 2022. Entering 2023, the ex-works price of trifluralin started to take off in Jan., and once bounded to USD6,223/t in Feb., before another downside trend starting in March. During the peak season in Q2, the ex-works price of China's trifluralin hovered at RMB40,500/t in April to July. According to CCM's monitoring data, the July price was USD5,613/t, down by 1.24% YoY.

Forecasts on supply, demand and price in H2 2023

- **Supply:** The trifluralin supply is estimated to be stable, with some producers expanding to the production of upstream materials in order to avoid impacts from lack of intermediates and price fluctuation. For example:
 - In Jan. 2023, Jiangsu Fengshan Group Co., Ltd. announced a fine chemicals construction project with a total investment of USD95.53 million, of which USD78.56 million was from fund raising. The project is designed in Yaojiagang Chemical Industrial Park, Yichang City, Hubei Province and to form 67,500 t/a fine chemicals for the production of trifluralin technical, including 4-chlorotoluene, 2-chlorotoluene and etc.
- **Demand:** China's trifluralin is mainly exported to overseas markets; an increase of overseas demand for trifluralin technical in Q3 will help to lift the overall price.
- **Price:** In general, the ex-works price of trifluralin technical is unlikely to witness significant ups and downs, estimated to hover around USD5,000/t in the last five months of 2023.

Figure 2.5-1 Ex-works prices of trifluralin technical in China, July 2022–July 2023



Source: CCM

2.6 Nicosulfuron

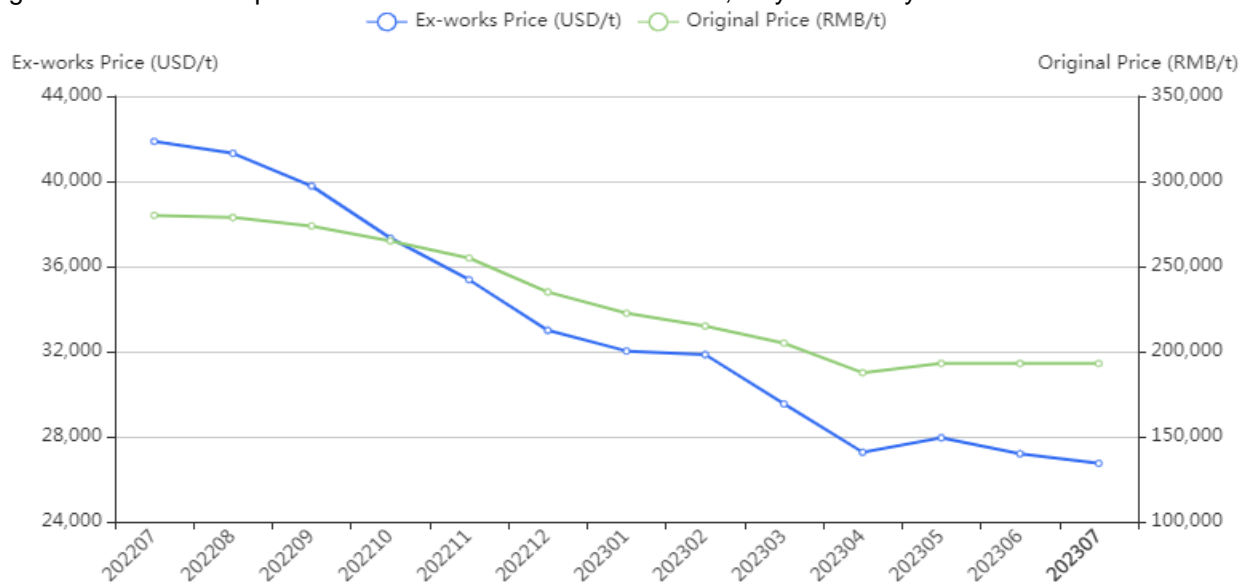
The ex-works price of nicosulfuron technical has been on a slow decline since Q3 2022, almost flatlining in Q2 2023 at the level expected to last to 2024.

According to CCM's monitoring data, the ex-works price of nicosulfuron technical was on a sharp decline in 2022, down to USD32,994/t in Dec. Although the downtrend has eased in early 2023, because of producers' accelerated delivery of orders before the Chinese New Year holiday, the price kept falling and registered the lowest point of USD27,265/t since 2019 in April 2023, due to the tight supply of upstream intermediate, down by over 50% from the historic high of USD54,951/t in Dec. 2021. However, the price picked up slightly to USD27,949/t in May, up by 2.51% MoM, and then in June–July it fell back to the level of April, factoring in the limited supply of intermediate.

Forecasts on supply, demand and price in H2 2023

- **Supply:** Sufficient capacity and oversupply, and intense competition are to continue in domestic nicosulfuron technical market;
- **Demand:** Domestic trade of nicosulfuron technical will tail off in August and overseas trade will pick up the baton in Q3, with expectedly growing demand;
- **Price:** In general, the price of nicosulfuron technical will maintain stable in the second half of 2023 and even to 2024 for improving overseas sales.

Figure 2.6-1 Ex-works prices of nicosulfuron technical in China, July 2022–July 2023



Source: CCM

2.7 Clethodim

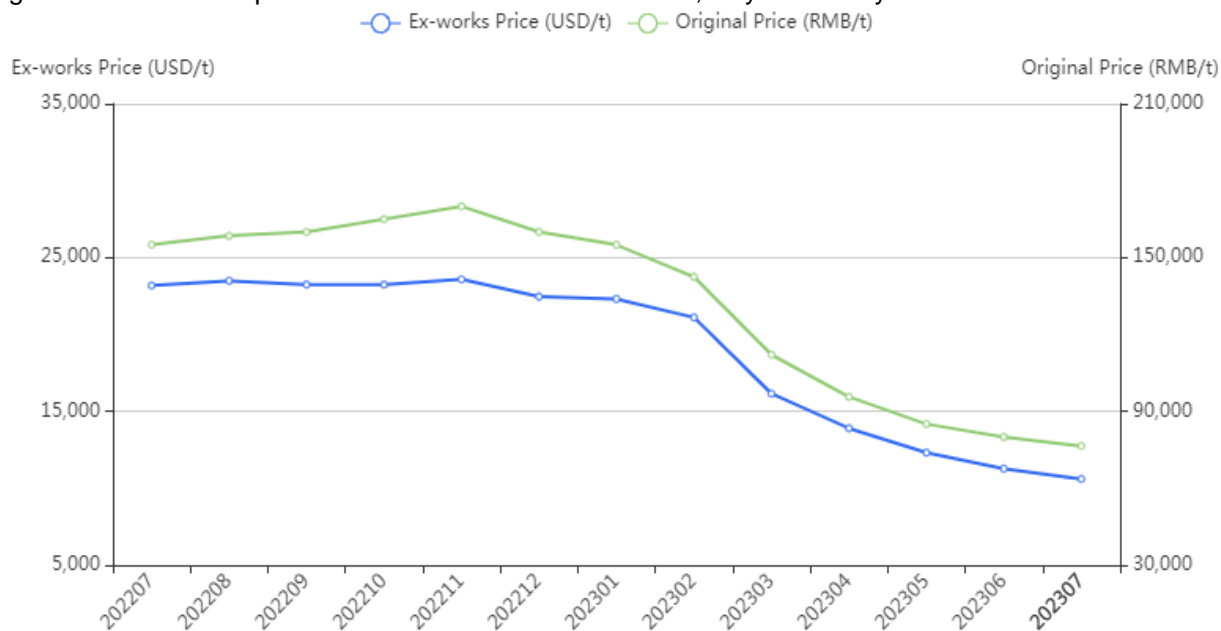
In Jan.–July 2023, the ex-works price of clethodim technical in China had suffered sharp drop, and is expected to stabilise or recover after August.

According to CCM's monitoring data, in H2 2022, the ex-works price of clethodim technical averaged at USD23,202/t, down by 17.98% from that in H1 2022. In Jan.–July 2023, proceeding with sluggish demand, clethodim technical suffered an undercut in export orders and overall price. The July price was USD10,602/t, down by 5.95% MoM or 54.27% YoY.

Forecasts on supply, demand and price in H2 2023

- **Supply:** Presently, clethodim technical is in excessive supply; with part producers entering device maintenance in Aug., capacity utilisation will maintain at a low level and thus reduce supply. However, there is still 17,000 t/a of potential capacity for clethodim technical in China, including:
 - In July 2023, the environmental impact report of Hebei Lansen Bio-technology Co., Ltd.'s 25,005 t/a high-efficiency and low-toxicity pesticide expansion project was publicised, which included expanding capacity for clethodim technical from 4,000 t/a to 12,000 t/a;
 - On 25 April, 2023, Shandong Cynda (Group) Co., Ltd. announced to construct a 5,000 t/a clethodim technical material and technical concentrate project.
- **Demand:** Demand for clethodim technical is expected to rise;
- **Price:** In general, market for clethodim technical will mainly be steady.

Figure 2.7-1 Ex-works prices of clethodim technical in China, July 2022–July 2023



Source: CCM

2.8 Atrazine

The atrazine technical market presented has recorded a stable price trend and ample supply in a year before July 2023, but a downturn in price may follow in the future.

According to CCM's monitoring data, since 2022 the ex-works price of atrazine technical has been moving around RMB36,000/t (USD5,171/t) in RMB terms or above USD5,000/t in USD term. Entering 2023, despite the growth in cost on the rising intermediate prices, the decreased demand sent down the product price to USD4,989/t in July, a yearly drop of 12.21%; meanwhile, intermediates like cyanuric chloride, isopropylamine and ethylamine have sustained steady prices.

Forecasts on supply, demand and price in H2 2023

- **Supply:** Presently, producers of atrazine technical maintain low operating load, while some are under an overhaul. Whereas the currently ample stocks will fulfil the downstream need for a short time;
- **Demand:** Sluggish market demand is to remain in a short term;
- **Price:** Overall, the price of atrazine technical in H2 2023 may stay steady, but with a high possibility to drop.

Figure 2.8-1 Ex-works prices of atrazine technical in China, July 2022–July 2023



Source: CCM

2.9 Diquat

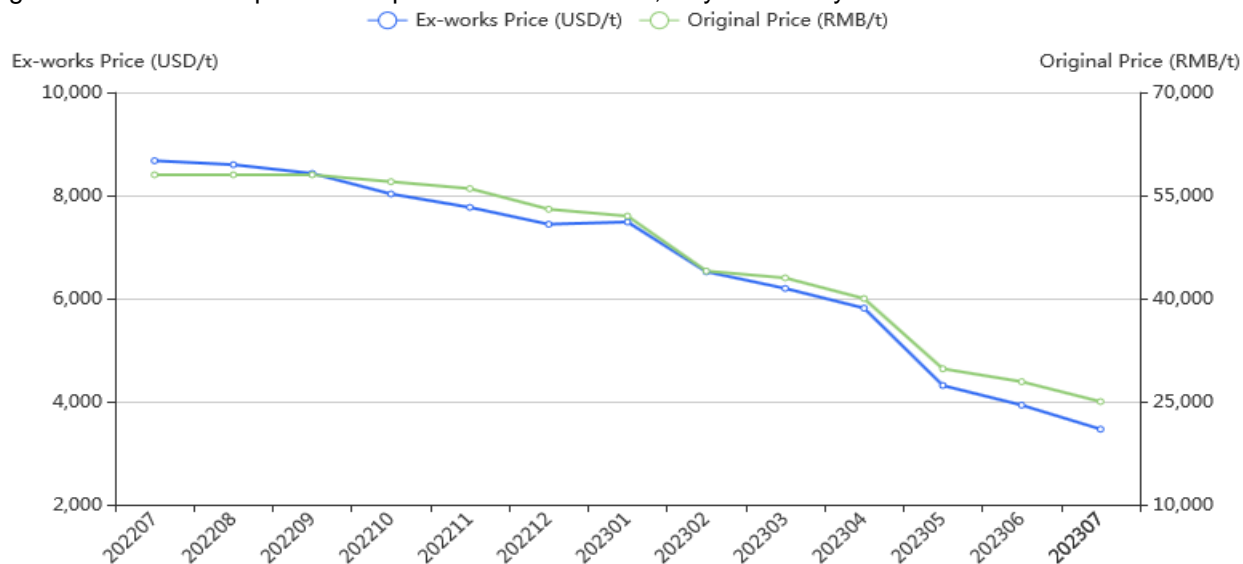
In July 2023, the ex-works price of diquat technical had touched the bottom, down by 11.87% MoM or 60.06% YoY. Given limited stocks, the price may rise first then stabilise.

According to CCM's monitoring data, in 2022, the ex-works price of diquat technical diminished to USD7,441/t in Dec., down by 4.22% MoM or 25.36% YoY. The dipping price carried on in 2023, recording an average at USD5,389/t in Jan.–July, down by 37.52% compared with the annual USD8,625/t in 2022. The July price of 40% diquat technical hit the bottom at USD3,465/t, down by 11.87% MoM or 60.06% YoY; meanwhile, inventory for diquat technical came in at the low end, coupling with price hike of raw material pyridine, which hinted a potential stabilised or rebounding price of diquat technical.

Forecasts on supply, demand and price in H2 2023

- **Supply:** In Aug., the capacity utilisation in the industry maintained at a low level, and stocks in early stage are mainly used for export orders, which may result in insufficient supply in domestic;
- **Demand:** Demand for diquat technical remains dull, and is unlike to improve due to low cost performance;
- **Price:** In general, the price of diquat technical is expected to go up first and then stabilise in late 2023.

Figure 2.9-1 Ex-works prices of diquat technical in China, July 2022–July 2023



Source: CCM

2.10 Mesotrione

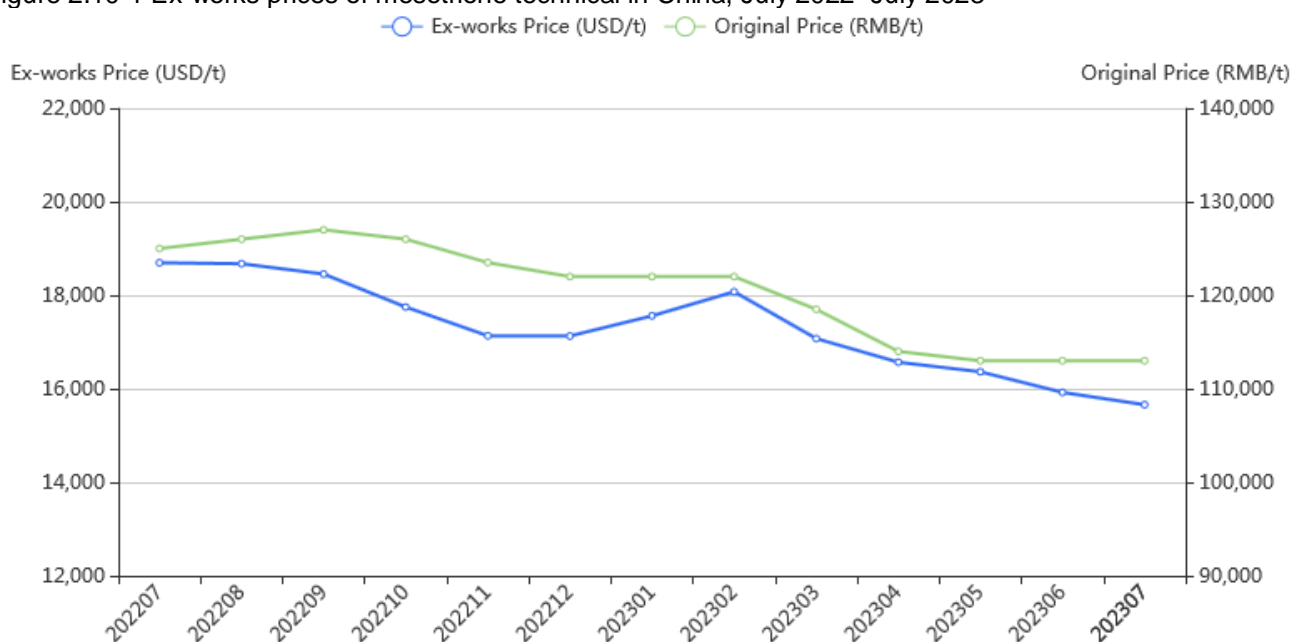
In Jan.–July 2023, the ex-works price of mesotrione technical declined by 10.82%, maintaining at a low level; it is expected to stabilise in the new future.

According to CCM's monitoring data, Dec. 2022 marked the lowest ex-works price in the past five years at USD17,129/t, down by 0.03% MoM and 37.66% YoY. Before March 2023, the average price of mesotrione technical price was USD17,818/t, while later renewed record lows on a monthly basis in the following five months, due to high level of inventory. By July, the price had moved to USD15,660/t, down by 16.23% YoY.

Forecasts on supply, demand and price in H2 2023

- **Supply:** Given the ample capacity, oversupply and excessive inventory, it is foreseeable that the situation will not change much in the second half of the year;
- **Demand:** Overseas demand for mesotrione technical is expected to increase in Q3, the traditional peak season for export;
- **Price:** In the short run, mesotrione technical will stabilise at a low level of price.

Figure 2.10-1 Ex-works prices of mesotrione technical in China, July 2022–July 2023



Source: CCM

3 Price analysis of selected insecticides in China, Jan.–July 2023

3.1 Emamectin benzoate

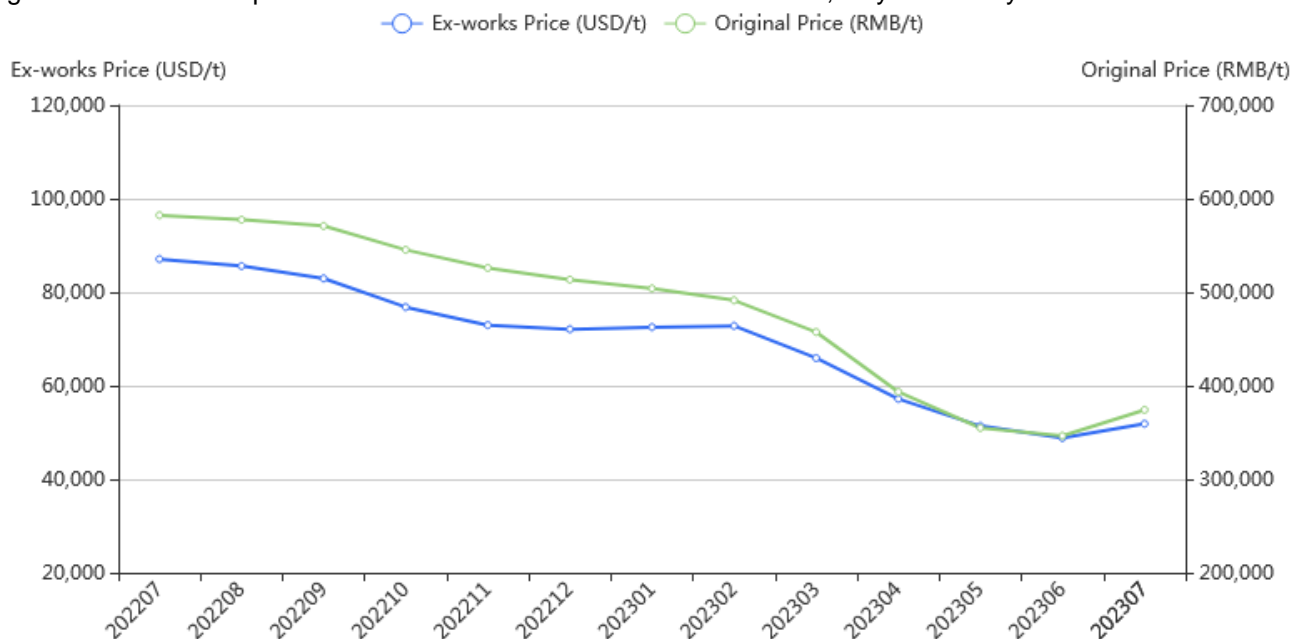
In China, emamectin benzoate has been suffering soft demand, dull trading and slipping price, though the price rose a bit in July 2023 as the raw material price stabilised. The price of this product is estimated to stay stable in the short term.

In 2022, market for emamectin benzoate technical went downhill through the year, with soft demand, dull trading and slipping price. In Dec., the price had reached a record low since 2019 to USD72,095/t, down by 1.2% MoM or 47.19% YoY. Based on 2023's monitoring to date, small-volume emamectin benzoate orders had increased, with 70% emamectin benzoate technical priced around USD72,000/t in Jan.–Feb., a comparatively high level, before it was dragged down to the low level seen in 2021 by the nosediving price of the raw material abamectin. In June, the ex-works price of emamectin benzoate technical bottomed out at USD48,827/t down by 28.51% from USD72,095/t of Jan. In July, it inched up to USD51,862/t, a rise of 6.22% MoM, as abamectin price levelling off; the month also marking a 40.45% YoY slump, owing to increasing registrations of the alternative product chlorantraniliprole at home and abroad.

Forecasts on supply, demand and price in H2 2023

- **Supply:** There are strong supply capacities of emamectin benzoate technical at present, and will be constant unless of planning capacity or injection of investment in the sector, which will lead to intense domestic competition in the short term. For example:
 - In June 2023, Qilu Pharmaceutical Group Co., Ltd. put the 2,000 t/a emamectin benzoate technical transformation and upgrading project into production, which will make the company the world's largest emamectin benzoate producer once the project operating at full;
 - In May 2023, Hebei Veyong Bio-chemical Co., Ltd. announced an expansion project plan to add 500 t/a production capacity for emamectin benzoate technical on top of the existing 300 t/a.
- **Demand:** Market may face a lukewarm demand for emamectin benzoate technical due to more and more registrations of the alternative product chlorantraniliprole with most buyers only placing orders by need;
- **Price:** As a whole, the price of emamectin benzoate technical is estimated to stay stable in the short term with a tendency to move downwards.

Figure 3.1-1 Ex-works prices of emamectin benzoate technical in China, July 2022–July 2023



Source: CCM

3.2 Imidacloprid

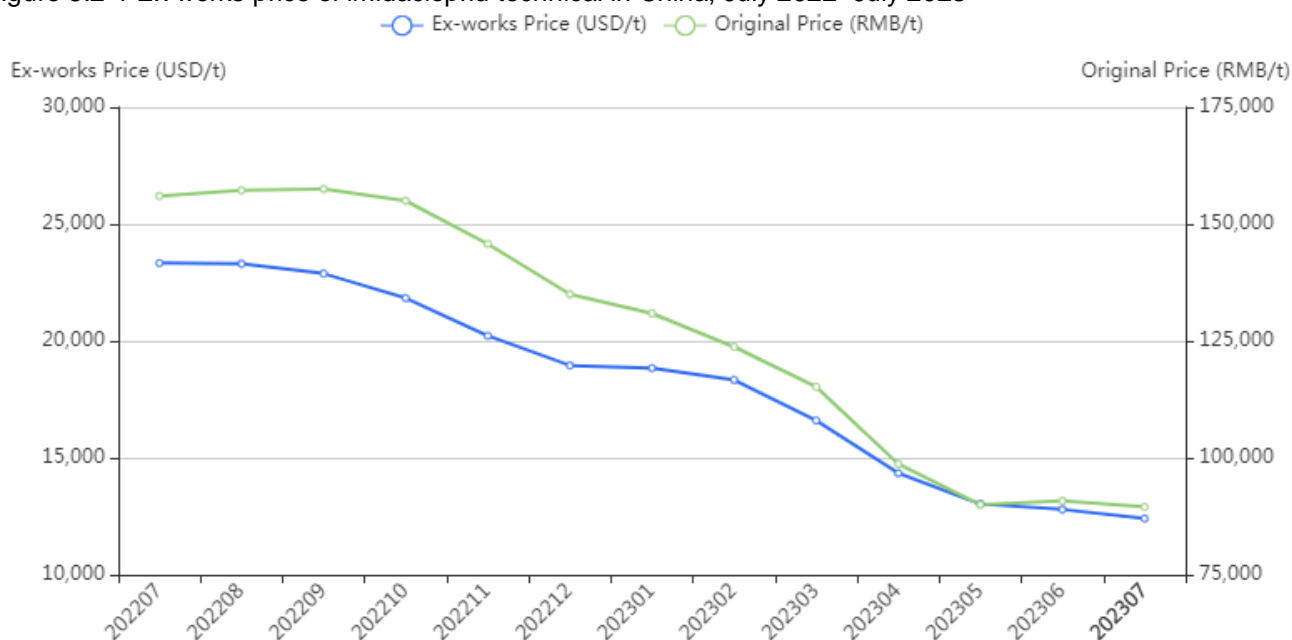
The recent imidacloprid technical market has seen downward price trend due to weak demand; price in July 2023 down by 3.04% MoM or 46.83% YoY. In Q3 2023, the ex-works price is expected to rise due to lack of supply.

According to CCM's monitoring data, the ex-works price of imidacloprid technical fell to USD18,954/t in Dec. 2022, down by 40.3% from Jan. 2022. Weak demand for imidacloprid technical has sustained to 2023, putting prices in volatility, which was averaged at USD17,925/t in Q1 and moved to USD12,406/t in July 2023, down by 3.04% MoM and 46.83% YoY.

Forecasts on supply, demand and price in H2 2023

- **Supply:** Presently, prices of imidacloprid's intermediates CCMP and DMF remain stable, they are likely to rise though, which will suppress the production of imidacloprid technical. In addition, it is expected a high-temperature overhaul of production equipment among producers in late Aug., which will reduce supply of imidacloprid technical;
- **Demand:** Recently, buying sentiment is better off in downstream; it is expected that there will be some new orders in the market;
- **Price:** Generally speaking, the price is highly possible to go up from insufficient supply.

Figure 3.2-1 Ex-works price of imidacloprid technical in China, July 2022–July 2023



Source: CCM

3.3 Malathion

During July 2022–July 2023, the ex-works price of malathion technical first fluctuated, then landed back to the 2022 annual, and is expected to fluctuate horizontally in the short term.

According to CCM's monitoring data, in 2022, malathion technical, mainly for export, registered an annual price of USD5,503/t, up by 23.74% YoY. In Jan.–July 2023, the market price was stabilised and averaged at USD5,460/t. Owing to increasing ban and restriction on organic phosphorus products, the export demand shrank in July, sending the price back to USD5,266/t by 1.65% MoM or 4.83% YoY.

Forecasts on supply, demand and price in H2 2023

- **Supply:** In the short term, supply of malathion technical is sufficient due to overcapacity in domestic, with potential capacities included in the following project:
 - On 1 Aug., 2022, the environment impact report of Gansu Wobilin Plant Protection Co., Ltd.'s 9850 t/a pesticide technical production project was publicised, including building production lines for 5,000 t/a malathion technical.
- **Demand:** In the short term, demand for malathion technical will have little change; but export demand may increase at the end of 2023;
- **Price:** Price of malathion technical is expected to fluctuate around the same the level seen in July.

Figure 3.3-1 Ex-works prices of malathion technical in China, July 2022–July 2023



Source: CCM

3.4 Pymetrozine

As of July 2023, the ex-works price of pymetrozine technical had struggled with a 2-year-period downward drift; the July price was down by 49.45% compared with the peak in Nov. 2021. Before 2024, this product price is estimated to rebound and fluctuate around USD18,500/t.

According to CCM's monitoring data, pymetrozine technical has continued the downtrend throughout 2022 since late Q3 2021 when its price peaked at USD30,378/t in Nov. 2021, and was down to USD18,252/t in Dec. 2022, and to 2023 so far, bottoming recently at USD15,079/t in April 2023. It then rebounded in May due to lack of supply and low operating rate, while the pickup did not last long— the price landed at USD15,355/t in July, a decrease of 14.22% from USD17,901/t in Nov. 2014, one of the worse time in the pymetrozine market when price war broke out.

Forecasts on supply, demand and price in H2 2023

- **Supply:** Given the overcapacity in the current domestic market, it is likely that producers will lower operating rate or suspend production in order to stabilise the price and release cost pressure;
- **Demand:** Entering rigid season, demand for pymetrozine technical is expected to recover;
- **Price:** Overall, price of pymetrozine technical is estimated to rebound and fluctuate around USD18,500/t.

Figure 3.4-1 Ex-works prices of pymetrozine technical in China, July 2022–July 2023



Source: CCM

3.5 Lambda-cyhalothrin

The ex-works price of lambda-cyhalothric technical ex-works price has seen downtrend since 2022 as sluggish demand lingered, but the price is expected to turn stable with little fluctuation in H2 2023.

According to CCM's monitoring data, the lambda-cyhalothric price fell below to USD25,974.03 at the end of 2022, down by 2.74% MoM and 34.48% YoY. In the first two months of 2023, the price of lambda-cyhalothric technical was able to stand around USD26,000/t temporally. In Q2, as intermediate price dropped rapidly, pyrethroid products were sold at reduced prices. According to CCM, the July price of 95% lambda-cyhalothrin technical was USD16,353/t, a sharp year-on-year decrease of 46.40%.

Forecasts on supply, demand and price in H2 2023

- **Supply:** Given the Q3 equipment maintenance, the domestic supply of lambda-cyhalothric technical may be restricted, whereas there are new capacities in planning. For example:
 - On 31 July, 2023, the environmental impact (EI) report of Jiangsu Chunjiang Runtian Agrochemical Co., Ltd.'s 2,600 t/a lambda-cyhalothric technological renovation project was approved;
 - On 5 May, 2023, the Environmental Impact Assessment (EIA) of Shandong Lukang Biological Pesticide Co., Ltd.'s pesticide formulation expansion and upgrading project was publicised, which will add 300 t/a lambda-cyhalothric technical;
 - On 10 Oct., 2022, the EIA of Gansu Tailing Technology Co., Ltd.'s 23,000 t/a green pesticide and intermediate production project (phase I) was publicised, and the project is to build 2,000 t/a lambda-cyhalothric in the phase II.
- **Demand:** The slack demand is very likely to last through H2 2023;
- **Price:** In general, the market of lambda-cyhalothric will largely witness a steady trend in H2 2023.

Figure 3.5-1 Ex-works prices of lambda-cyhalothrin technical in China, July 2022–July 2023



Source: CCM

3.6 Bifenthrin

In 2023, the ex-works price of bifenthrin technical in China represented a decrease of 37.5% from Jan.–July. Before 2024, this product may not see a spike but keep steady or declining.

According to CCM's monitoring data, 2022 experiencing a year-long drop in the ex-works price of bifenthrin technical, which was averaged at USD43,638/t, up by 5.6% YoY. In Jan.–July 2023, bifenthrin technical sustained weak demand, nevertheless the capacity expansion had brought about fiercer competition; the price continued to climb down with costs lifted up by the rising prices of basic raw materials. The YoY declines of the monthly ex-works prices in Jan.–July excelled 35%; the July price came in at USD22,174/t, down by 7.26% MoM or 47.05% YoY., registering a 37.5% decline from that in Jan.

Forecasts on supply, demand and price in H2 2023

- **Supply:** Since Aug., main producers has resumed operation, which will increase supply, and there is news about new capacities for long-term stable supply. For example:
 - On 10 Oct., 2022, the Environmental Impact Assessment (EIA) of Gansu Tailing Technology Co., Ltd.'s 23,000 t/a green pesticide and intermediate production project (Phase I) was publicised. The project included building production lines for 1,000 t/a acetamiprid technical and 3,000 t/a 2-chloro-5-chloromethylpyridine in Phase I and 2,000 t/a lambda-cyhalothric, 1,500 t/a bifenthrin technical and 1,000 t/a nitenpyram in Phase II in Yumendong Building Material and Chemical Industrial Park of Jiuquan Circular Economy Industrial Park in Gansu Province;
 - In May 2023, Shandong Sino-Agri United Biotechnology Co., Ltd. unveiled at the performance briefing that the company's bifenthrin technical project of its 3,300 t/a insecticide technical project will complete construction in H2 2024.
- **Demand:** Demand in domestic remains sluggish while that in overseas is limited in the short term;
- **Price:** The price of bifenthrin technical is expected to retain steady or decline instead.

Figure 3.6-1 Ex-works prices of bifenthrin technical in China, July 2022–July 2023



Source: CCM

3.7 Chlorfenapyr

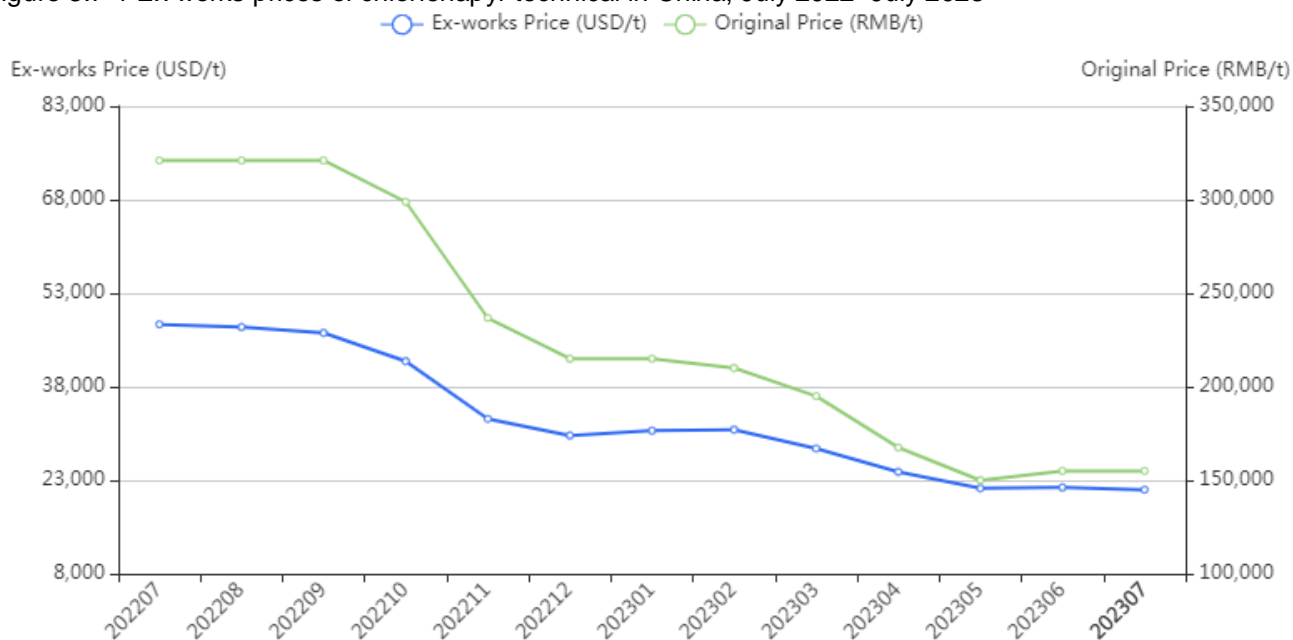
The ex-works price of 98% chlorfenapyr technical in China dropped by over 30.% from Jan. to July 2023. In a short period, price of this product is expected to maintain stability.

According to CCM's monitoring data, the annual ex-works price of chlorfenapyr technical in 2022 recorded a general downtrend to USD30,186/t in Dec., slumping by 45.91% from that in Jan. In 2023 so far, the price has continued falling: in Jan.–Feb., owing to lower operating rate during the Chinese Spring Festival holiday, the price of chlorfenapyr technical was moving within the monthly change range of 0.5%–3.0%. The overall demand has not recovered and intense competition among producers persisted. Subsequently, the price started dipping, and bottomed at USD21,722/t in May, after which the price plateaued. In July, the ex-works price of 98% chlorfenapyr technical in China registered USD21,481/t, down by 1.65% MoM or 55.26% YoY, and down by 30.59% from that in Jan.

Forecasts on supply, demand and price in H2 2023

- **Supply:** Product supply will remain stable for short; during Aug. 2022–July 2023, projects of at least 6,500 t/a new capacity for chlorfenapyr technical are as follows:
 - On 6 June, the environmental impact (EI) report of Lanzhou Zhaofeng Chemical Technology Co., Ltd.'s 500 t/a tralopyril and 400 t/a 2-chloroacrylonitrile project (Phase II: 1,200 t/a chlorfenapyr technical and supporting intermediate project) was approved;
 - In May, Shandong Sino-Agri United Biotechnology Co., Ltd. disclosed at the performance briefing that the company's chlorfenapyr technical project of its 3,300 t/a insecticide technical project had entered trial production, with production volume steadily going up and approaching the target at present.
 - On 1 Aug., 2022, the EI report of Gansu Wobilin Plant Protection Co., Ltd.'s 9850 t/a pesticide technical production project was publicised, including building production lines for 800 t/a chlorfenapyr technical.
- **Demand:** Due to high use cost, demand for chlorfenapyr may increase with price dropping in the short term; from a long time perspective, it may be impacted as the patent of chlorantraniliprole expired.
- **Price:** Price of chlorantraniliprole technical is expected to maintain stability in a short time.

Figure 3.7-1 Ex-works prices of chlorfenapyr technical in China, July 2022–July 2023



Source: CCM

3.8 Thiamethoxam

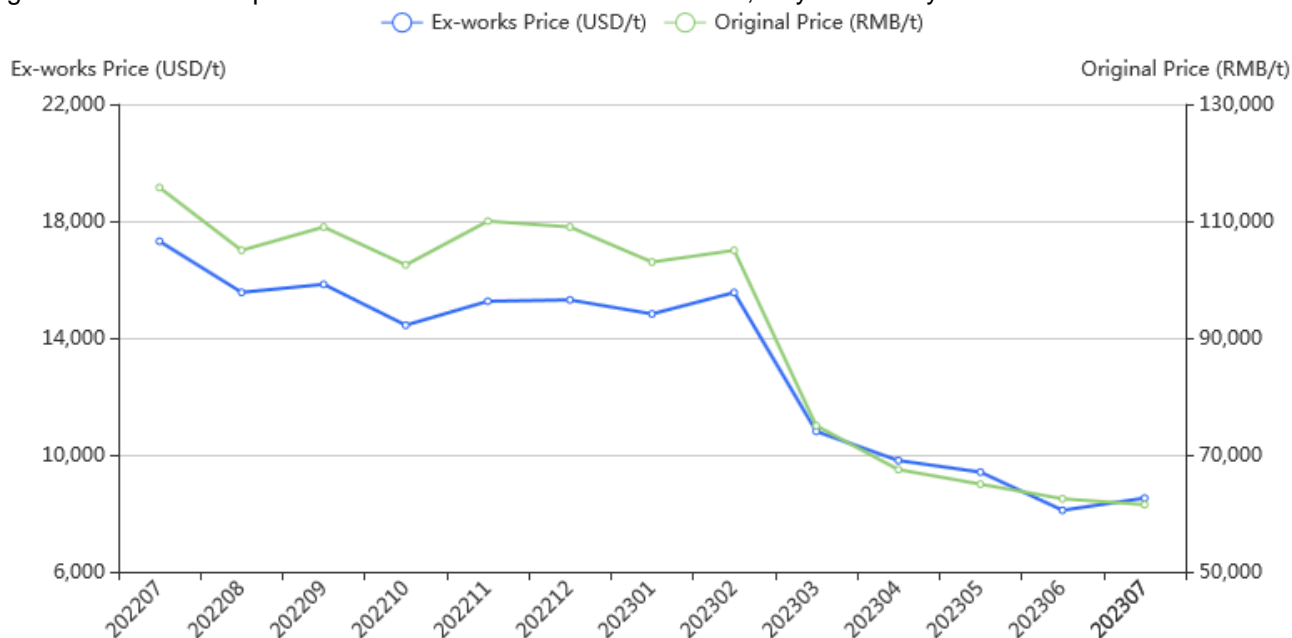
In 2023, the price of thiamethoxam technical presented stability at first and then plunged, down by 42.5% in July from that in Jan. For the coming months in 2023, the market price is likely to rise.

According to CCM's monitoring data, in 2022, the price of thiamethoxam technical fell on the whole but at a moderate degree, averaging at USD17,183/t. In Jan.–Feb. 2023, end products of thiamethoxam technical entered the replenishment season, which carried over the steady trend in late 2022. With stern competition, the price took a dive at the end of March to USD10,807/t, down by 30.54% MoM; resulting from bleak demand and trading, the price kept falling until Q3, when overseas orders increased; in July, it arrived at USD8,523/t, up by 5.15% MoM yet down by 50.77% YoY, and down by 42.5% from that in Jan.

Forecasts on supply, demand and price in H2 2023

- **Supply:** Domestic supply of thiamethoxam technical will remain sufficient for a long time, with at least 17,500 t/a new capacity disclosed in 2023. Details of the projects are as follows.
 - In July 2023, Hebei Derui Chemical Co., Ltd.'s 3,000 t/a thiamethoxam technical technological transformation project was publicised;
 - In June 2023, the Environmental Impact Assessments of Jiangxi Oushi Chemical Co., Ltd.'s 2,000 t/a lufenuron and 1,000 t/a dinotefuran project and 2,000 t/a picoxystrobin and 10,000 t/a thiamethoxam project were publicised for the first time;
 - On 15 March, 2023, the environmental impact (EI) report of Gansu Hanlong Chemical Co., Ltd.'s pesticide intermediate and technical production lines project (Phase II) was approved, which included 1,500 t/a thiamethoxam technical;
 - On 9 March, 2023, the EI report of Hubei Jinghesheng Biotechnology Co., Ltd.'s 13,600 t/a pesticide technical and intermediate project was publicised before approval, which included 3,000 t/a thiamethoxam technical.
- **Demand:** With the upcoming overseas demand in Q3, sales of thiamethoxam technical are expected to grow.
- **Price:** Generally speaking, the market price of thiamethoxam technical is likely to rise in the short term.

Figure 3.8-1 Ex-works prices of thiamethoxam technical in China, July 2022–July 2023



Source: CCM

3.9 Acetamiprid

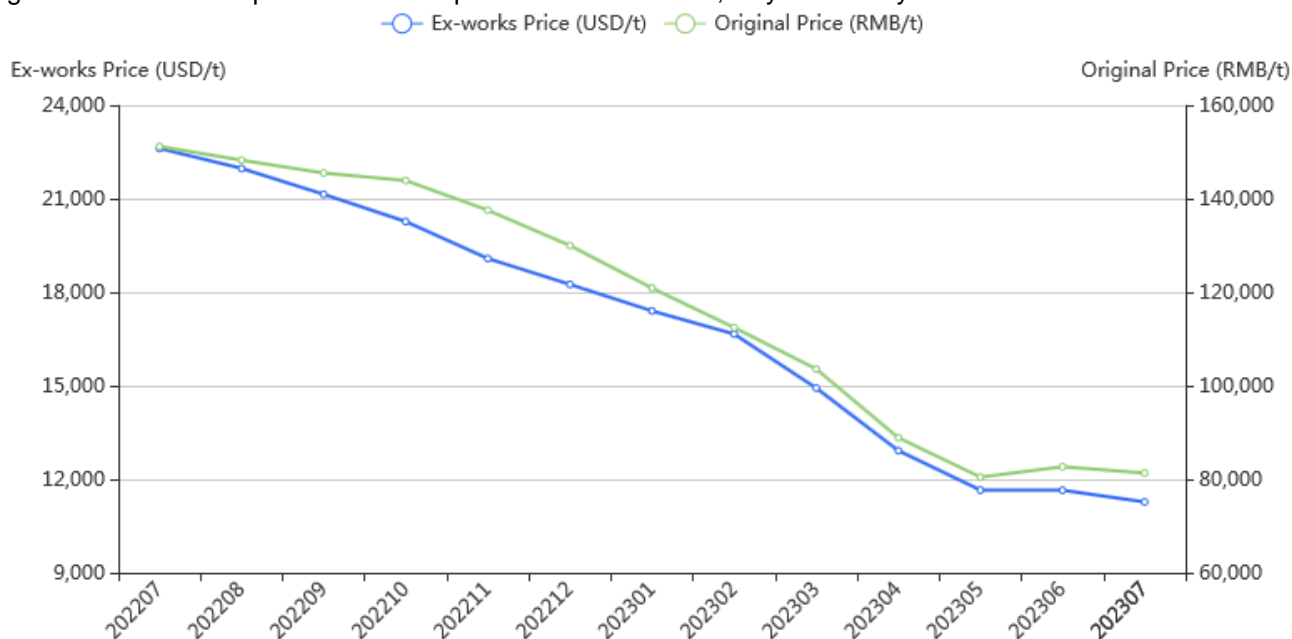
In Jan.–July 2023, acetamiprid technical registered sound supply, with price in July going down 3.22% MoM and 50.14% YoY; it is expected to see price rally in the short time.

According to CCM's monitoring data, during 2022, the ex-works price of acetamiprid technical kept slipping, recording USD18,954/t in Dec., down by 42.14% in the year. The price sustained the downtrend in 2023 as a result of sound supply and unrecovered demand, amounting to USD11,654/t in May, down by 9.8% MoM or 50.46% YoY. Thanks to the subsequent resumption of downstream end demand, coupling with inventory consumption along the channel, the price maintained a temporary stability, hitting USD11,275/t in July, a 35.2% decrease from that in Jan. 2023.

Forecasts on supply, demand and price in H2 2023

- **Supply:** Supply of acetamiprid technical is expected to remain steady with a potential capacity of 6,000 t/a specified as below.
 - On 10 Oct., 2022, the Environmental Impact Assessment of Gansu Tailing Technology Co., Ltd.'s 23,000 t/a green pesticide and intermediate project (Phase I) was publicised, which included building production lines for 1,000 t/a acetamiprid technical;
 - In May 2023, Shandong Sino-Agri United Biotechnology Co., Ltd. announced completion of workshop construction for a 5,000 t/a acetamiprid technical project.
- **Demand:** Presently, acetamiprid formulations are in demand for production, and overseas orders are likely to increase in the short term;
- **Price:** In general, price of acetamiprid technical is expected to rise first and then stabilise at around USD11,000/t.

Figure 3.9-1 Ex-works prices of acetamiprid technical in China, July 2022–July 2023



Source: CCM

3.10 Chlorantraniliprole

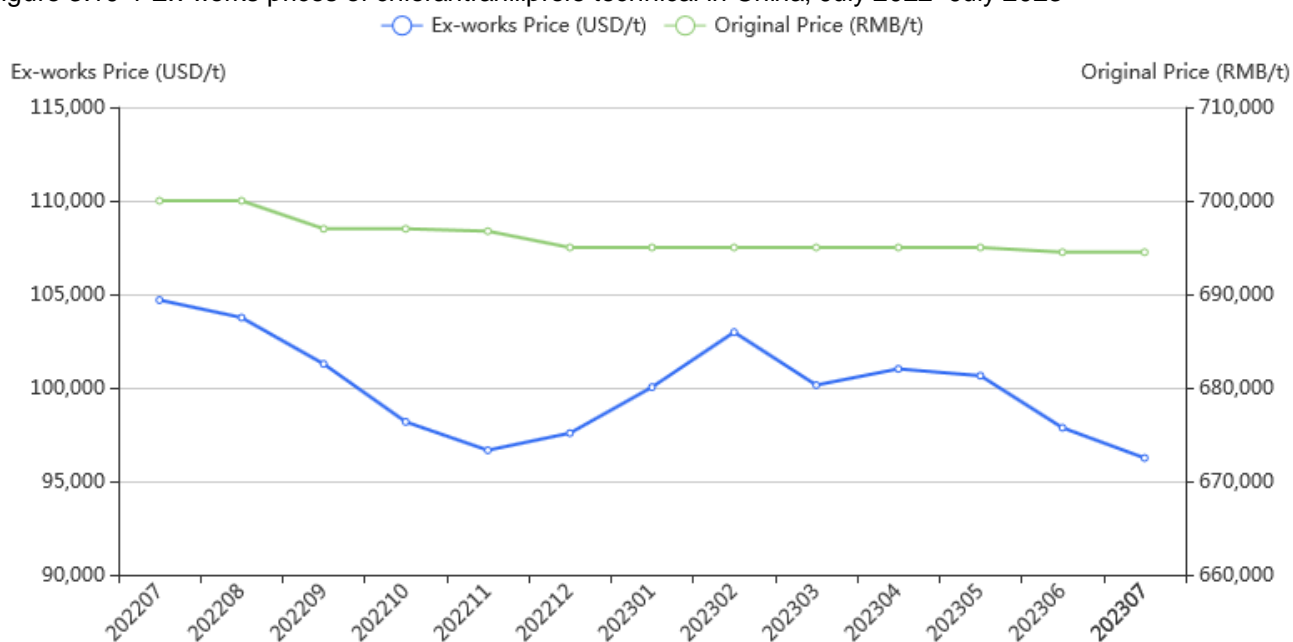
The ex-works price of chlorantraniliprole technical in China recovered to a high level in early 2023 from the downturn in H2 2022, on the increasing market sentiment, though then it pulled back slightly in later period. It is expected to swing around USD96,000/t in a short term.

According to CCM's monitoring data, chlorantraniliprole technical had seen its price heading down sharply in the second half of 2022 since expiration of compound patent and then rebounded to USD97,578/t in Dec. 2022, the rise carried on to early 2023. In 2023, ICAMA publicised the pesticides to be approved, with more chlorantraniliprole products on the list, which suggested China's pesticide players are setting off the layout of chlorantraniliprole in succession. The continuously rising attention has raised the product price. During Jan.– May 2023, the price stood at RMB695,000/t with the average of USD100,962/t. Later on, it rolled back as construction of capacities launched in domestic, with the price of 95% chlorantraniliprole technical was USD96,248/t in July, down by 1.65% MoM or 8.06% YoY.

Forecasts on supply, demand and price in H2 2023

- **Supply:** As of Aug. 2023, at least 28,500 t/a new capacity for chlorantraniliprole technical is to be constructed or put into operation, which will ensure sufficient supply afterwards.
- **Demand:** Facing with fiercer competition of pesticide technicals and formulations, demand for the new red-hot insecticide chlorantraniliprole is unlikely to surpass that of other products in the short term despite the high industrial attention.
- **Price:** It is estimated that price of chlorantraniliprole technical will remain around USD96,000/t for a short time, and is expected to drop significantly due to expanded capacity.

Figure 3.10-1 Ex-works prices of chlorantraniliprole technical in China, July 2022–July 2023



Source: CCM

4 Prices analysis of selected fungicides in China, Jan.–July 2023

4.1 Difenoconazole

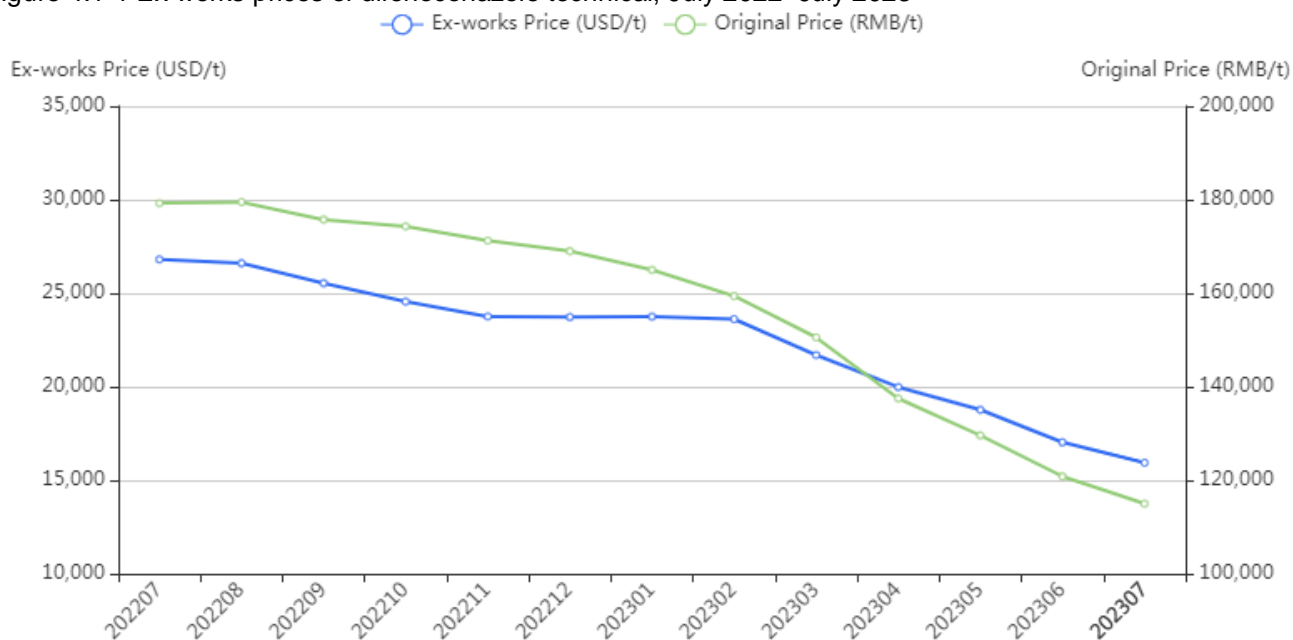
The ex-works price of difenoconazole technical was slashed by 33% from Jan.–July 2023; it is expected to stabilise in the short term.

According to CCM's monitoring data, the ex-works price of difenoconazole technical descended slowly to USD23,728/t in Dec. 2022., and has hovered around USD23,700/t from late 2022 to early 2023, close to the cost line, as buyers showed low enthusiasm and only placed orders by their needs. In March, the market experienced a bigger decrease in price. In July, the price arrived at USD15,937/t, down by 40.55% YoY, registering a 32.9% decline from Jan. 2023.

Forecasts on supply, demand and price in H2 2023

- **Supply:** In late Aug., part production equipment will enter high-temperature maintenance, which will lower the supply;
- **Demand:** Demand in the short term will stay dull without favourable signs currently;
- **Price:** Overall, it is expected that the price of difenoconazole technical will mainly be steady.

Figure 4.1-1 Ex-works prices of difenoconazole technical, July 2022–July 2023



Source: CCM

4.2 Propiconazole

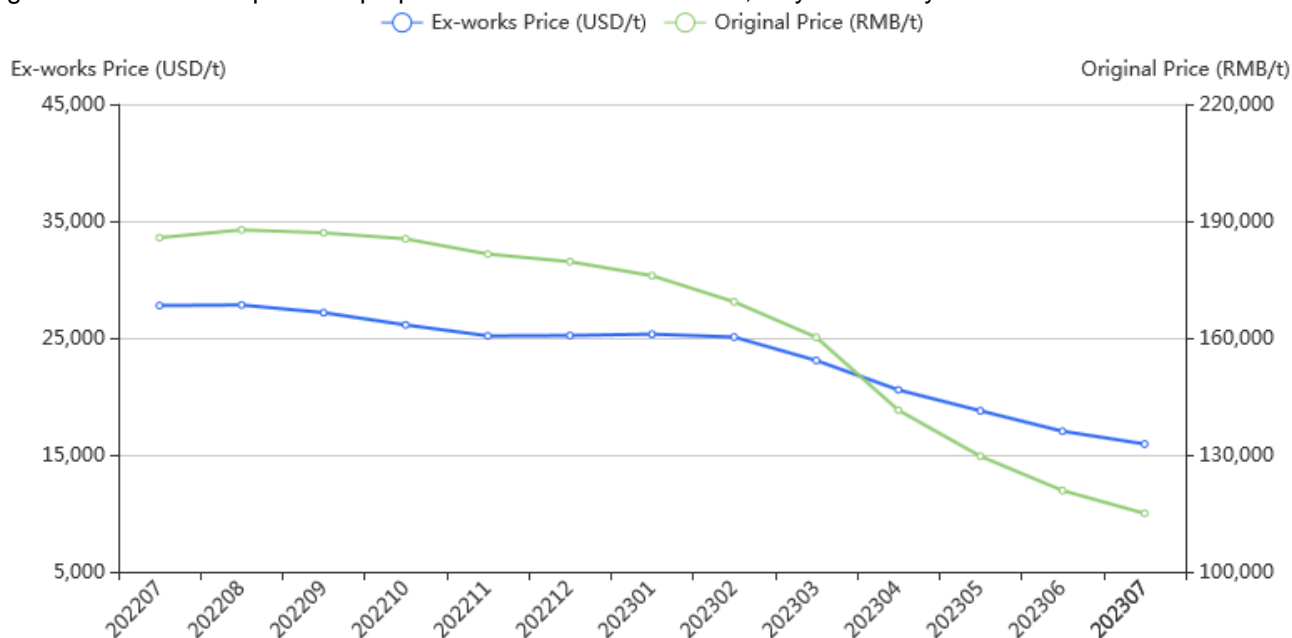
In Jan.–July, the ex-works price of propiconazole technical slumped by 37.09%; with production cost standing high in early Aug., the market trend is very likely to turn the corner.

According to CCM's monitoring data, in 2022, the price of propiconazole technical registered a decline of 9.23% from USD27,781/t in July to USD25,216/t in Dec. Pushed up by the cost, the price went on a steady trend in Q1 2023; it then decreased sharply, as a result of soft demand, overcapacity, low price of raw material 1,2-pentanediol and price competition among producers. The July price dropped to USD15,937/t, down by 3.83% MoM or 37.88% YoY.

Forecasts on supply, demand and price in H2 2023

- **Supply:** In the short term, supply of propiconazole technical tends to be limited, as producers may restrict or even suspend operation for an overhaul in order to ward off deficit resulted from overcapacity.
- **Demand:** Demand for propiconazole technical is unlikely to improve;
- **Price:** In general, price of propiconazole technical is very likely to rebound in the short time if jointly held up by producers.

Figure 4.2-1 Ex-works prices of propiconazole technical in China, July 2022–July 2023



Source: CCM

4.3 Tebuconazole

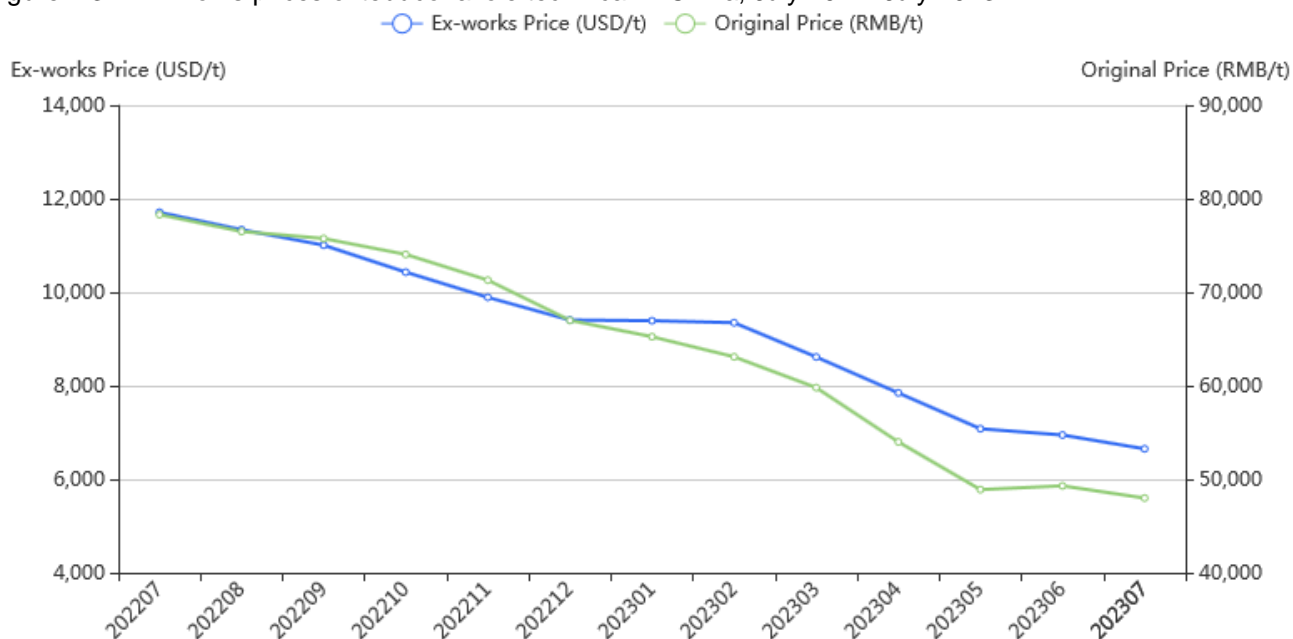
As of July 2023, the price of tebuconazole technical experienced a long-term downtrend, but may lay flat in the near future.

According to CCM's monitoring data, the price tebuconazole technical hit USD9,407/t at the end of Dec. 2022, the lowest in the past recent years. With further release of new capacities, market competition of tebuconazole technical was flared in 2023, leading to a 29.17% decrease in price from Jan. to July, which only stabilised for the first two months then slid along the way. In June, the price continued to fall but marginally. As of July 2023, the ex-works price of 97% tebuconazole technical was USD6,652/t, down by 43.19% YoY and close to cost.

Forecasts on supply, demand and price in H2 2023

- **Supply:** Tebuconazole technical market is expected ample supply, with a potential new capacity of no less than 2,700 t/a and relevant projects are summarised as below.
 - In Aug. 2023, the Environment Impact Assessment (EIA) of Fuxin Tianli Fine Chemical Co., Ltd. (Fuxin Tianli)'s 4,000 t/a pesticide and pharmaceutical intermediate project was publicised for the second time. The project is to form 1,000 t/a tebuconazole technical which is already in trail run.
 - In June 2023, Shenyang Liansheng Chemical Industry Co., Ltd. planned to construct capacities for 700 t/a tebuconazole, 2,000 t/a terbuchlor and 8,000 t/a acetochlor;
 - In May 2023, Hebi Baoruide Chemical Co., Ltd.'s 2,200 t/a chemicals project was completed construction work and entered trial run
- **Demand:** Recently low price fuels popularity of tebuconazole technical, which will further motivate trading.
- **Price:** Overall, tebuconazole technical price will turn stable in the short term.

Figure 4.3-1 Ex-works prices of tebuconazole technical in China, July 2022–July 2023



Source: CCM

4.4 Azoxystrobin

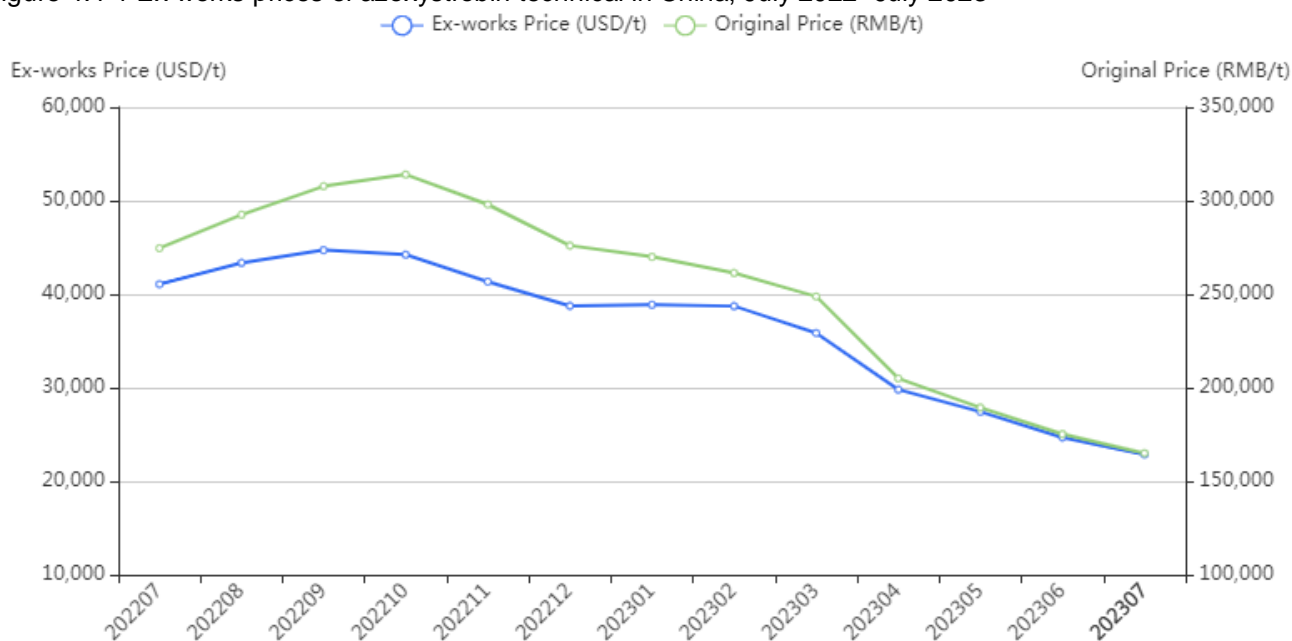
Since late 2022, the ex-works price of azoxystrobin technical presented an overall downtrend; in July 2023 it went down by 36.29% MoM or 44.32% YoY, but may not drop further in the short term.

According to CCM's monitoring data, in 2022, the ex-works price of azoxystrobin technical kept going down in general. Entering 2023, producers mainly received export orders as the domestic demand was sluggish. The lack of new orders and dull market led to slight drop in price, with the quarterly price in Q1 averaging at USD37,812/t, down by 8.76% QoQ. The decline continued after March. The July ex-works price of 96% azoxystrobin technical was USD22,867/t, down by 36.29% MoM or 44.32% YoY, and representing a slump of 41.2% from Jan. 2023.

Forecasts on supply, demand and price in H2 2023

- **Supply:** Producers are of low enthusiasm in going into operation; such situation may not improve in a short time, hence the overall supply is expected to be low;
- **Demand:** Demand from foreign trade tends to increase in Q3;
- **Price:** In general, the price is expected to turn stable in a short term.

Figure 4.4-1 Ex-works prices of azoxystrobin technical in China, July 2022–July 2023



Source: CCM

4.5 Carbendazim

The ex-works price of carbendazim technical fluctuated around USD6,000/t in first few months of 2023 then started a downturn in May, registering a 12.3% decrease from July to Jan.; a stable price is expected in H2 2023.

According to CCM's monitoring data, the ex-works price of carbendazim technical with a monthly decline of lower than 6.5% through 2022, averaged at USD6,926/t in the year, a rise of 8.6% YoY. The price kept fluctuating around USD6,000/t from Q3 2022 to early 2023. In Feb.–April 2023, the market supply of carbendazim technical was tight with part products suspended production. Whereas the price continued to decline, to USD5,308/t in July, down by 2.92% MoM or 22.00% YoY, and down by 12.3% from that in Jan.

Forecast of supply, demand and price in H2 2023

- **Supply:** In the short term, carbendazim technical may see tightened supply due to limited production, and mainly consume inventory presently;
- **Demand:** Demand for carbendazim technical is unlikely to rally in the short time;
- **Price:** Overall, the price of carbendazim technical is expected to turn stable.

Figure 4.5-1 Ex-works prices of carbendazim technical (white color) in China, July 2022–July 2023



Source: CCM

4.6 Prochloraz

Since Sept. 2022, the ex-works price of 97% prochloraz technical kept slipping below USD10,000/t due to sluggish demand; the price marked a sharp yearly decrease of 30.37% in July 2023 and is expected to stabilise.

According to CCM's monitoring data, in 2022, the ex-works price of prochloraz technical lingered at the low end, steadily falling to USD8,705/t in Dec., down by 43.13% YoY. In Jan.–July 2023, due to large inventory yet low-level demand since 2022, the price drop doubled down, amounting to a 18% decrease during the period. The July price of 97% prochloraz technical was USD7,082/t, slipping 1.88% month on month with a sharp yearly decrease of 30.37%.

Forecast of supply, demand and price in H2 2023

- **Supply:** Potential capacity in 2023 include
 - On 12 July, 2023,, the Environmental Impact Assessment (EIA) of Jiangxi Huihe Chemical Co., Ltd.'s 4,000 t/a prochloraz automatic transformation project (Phase I) was publicised for the second time, which will expand capacities for prochloraz technical from 1,000 t/a to 3,000 t/a;
 - In Jan. 2023, the EI report of Gansu Xinhengmao Technology Co., Ltd.'s chlorinated phenol project (Phase I) was publicised, which was designed to build 40,000 t/a chlorinated phenol including 2,4,6-trichlorophenol, an intermediate for prochloraz; in addition, Phase II of the project will build production lines for 2,000 t/a prochloraz technical.
- **Demand:** Demand for prochloraz technical has decreased since the emergence of new and substitute products, which is unlikely to improve in a short time;
- **Price:** In general, prochloraz technical is with little room for price decline. Instead, with cost reduction and technological upgrade advanced by technical producers, price is tending toward stability.

Figure 4.6-1 Ex-works prices of prochloraz technical in China, July 2022–July 2023



Source: CCM

4.7 Cyazofamid

In China, the ex-works price of cyazofamid technical once stood high on tight supply, yet it kept decreasing and tapped the bottom in Jan.–July 2023, and is expected to stabilise before 2024.

According to CCM's monitoring data, in 2022, following construction of new capacities in Q3, the annual price of cyazofamid technical fell to USD88,452/t in Dec., down by 5.54% MoM or 28.23% YoY. Raised by sellers, the Q1 prices of 94% cyazofamid technical in China increased to USD91,073/t in 2023, yet down by 4.45% QoQ or 25.58% YoY. As no improvement in demand, the price resumed downturn afterwards, tapping the bottom at USD69,487/t in July 2023, down by 6.25% MoM or 40.43% YoY, a 23.37% decline from that in Jan. 2023.

Forecasts on supply, demand and price in H2 2023

- **Supply:** Supply of cyazofamid technical is expected to maintain steady, though a new related project was recently proposed:
 - On 27 July, 2023, Gansu Zhongmaotou Chemical Co., Ltd. passed the environmental impact report of the 12,000 t/a fine chemical and pesticide TC project, which includes building production lines for 3,000 t/a dimethyl sulfoxide (phase I), 1,000 t/a cyazofamid technical, 1,000 t/a chlorantraniliprole technical and 3,000 t/a paclobutrazol technical (phase II);
- **Demand:** No sharp rise in demand for cyazofamid technical is expected in the short term;
- **Price:** Overall, the price of cyazofamid technical is expected to remain stable with little space for further dip.

Figure 4.7-1 Ex-works prices of cyazofamid technical in China, July 2022–July 2023



Source: CCM

4.8 Trifloxystrobin

The ex-works price of trifloxystrobin technical made downturn throughout 2022 and to July 2023; but the fall is expected to be followed with stability.

According to CCM's monitoring data, in 2022, the ex-works price of trifloxystrobin technical presented an overall downtrend, averaged at USD75,822/t on a yearly basis, down by 15.5% from that of 2021, and down to USD59,670/t in Dec. Entering 2023, with expanded capacity in the country, producers tuned down price of trifloxystrobin technical in order to capture more market share, which had led to a continuous price slide since January. The ex-works price of 96% trifloxystrobin technical sat at USD45,734/t in July, down by 6.20% MoM or 37.27% YoY.

Forecasts on supply, demand and price in H2 2023

- **Supply:** Trifloxystrobin technical is low at inventory level, which may influence normal supply;
- **Demand:** The market is expected to a certain level of increase in demand, with improving cost performance of the product benefiting a long-term growth;
- **Price:** In the short term, the price of trifloxystrobin technical is expected to move steadily, and less likely to see a plummet due to relatively stable demand.

Figure 4.8-1 Ex-works prices of trifloxystrobin technical in China, July 2022–July 2023



Source: CCM

4.9 Prothioconazole

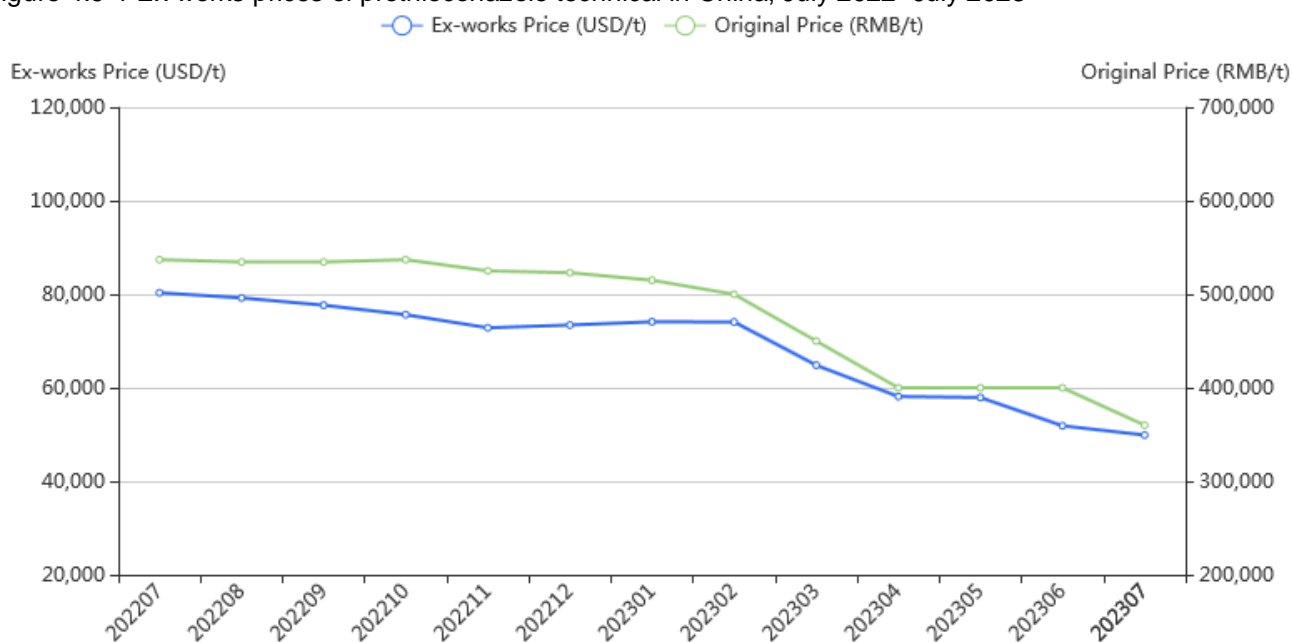
During July 2022–July 2023, the ex-works price of prothioconazole technical presented downtrend overall, which will sustain without pickup in demand.

According to CCM's monitoring data, in 2022, the annual price of prothioconazole technical hit USD81,356/t, a relatively high level compared to that before the COVID-19 pandemic outbreak (at USD72,315/t in 2019) with the month-on-month price changes under 4%. The product's high prosperity persisted until early 2023, with price reaching USD74,127/t and USD74,083/t in Jan. and Feb. respectively. During 2023, the increasing market attention to prothioconazole technical spurred expansion on capacities in supply-side, leading to slipping price since March. The July price of prothioconazole technical declined by 3.83% MoM to USD49,891/t, marked by a 37.88% YoY plummet from USD80,313/t in July 2022.

Forecasts on supply, demand and price in H2 2023

- **Supply:** Capacity for prothioconazole technical is expected to increase gradually for stable supply. For example:
 - On 7 Aug., 2023, the draft of the Environmental Impact Assessment (EIA) of Gansu Pingwen Chemical Co., Ltd.'s 10,300 t/a pesticide TC and 9,000 t/a intermediate project was publicised. The three-phased project, with an investment of USD138.88 million, will form capacities including 1,500 t/a prothioconazole technical and 150 t/a prothioconazole intermediates.
- **Demand:** In the short term, demand for prothioconazole technical will slacken off. That is because the domestic use for the product for 2023 has come to an end, while the overseas market is starting up slowly in the year;
- **Price:** In general, the price of prothioconazole technical may continue to decrease if there is no improvement in demand.

Figure 4.9-1 Ex-works prices of prothioconazole technical in China, July 2022–July 2023



Source: CCM

4.10 Pyraclostrobin

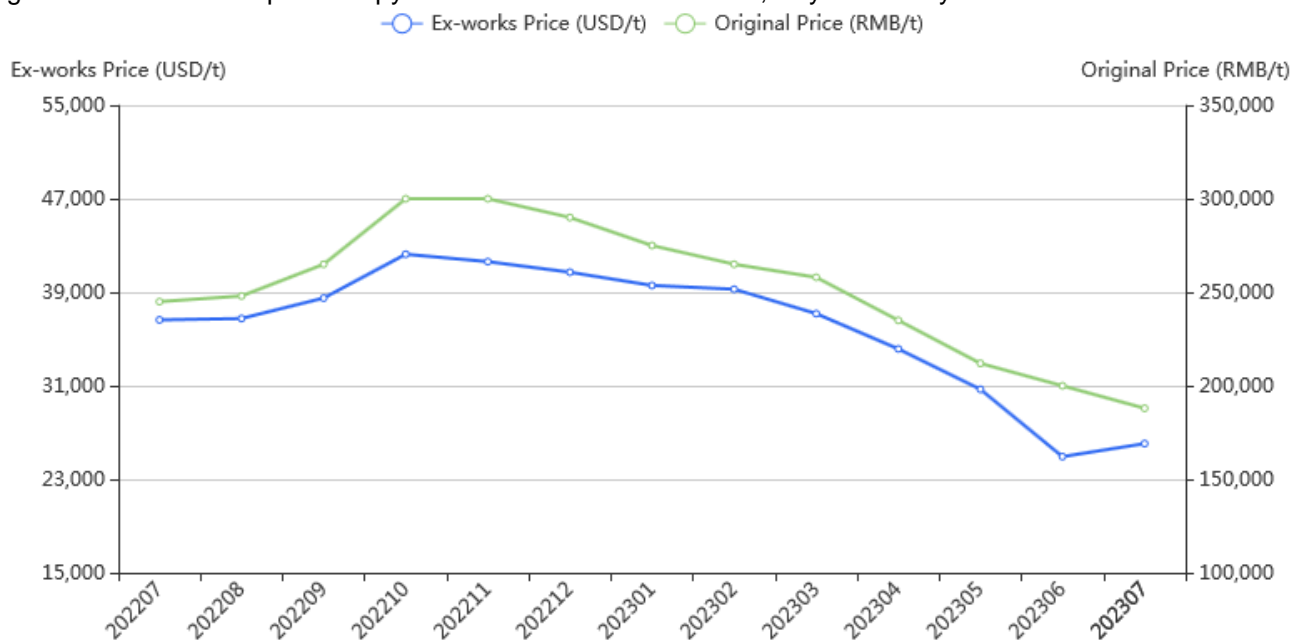
In contrast to high price in 2022 due to limited supply, the ex-works price of pyraclostrobin technical spiralled down to a rational level in Jan.–July 2023, and is expected to stabilised with ample stocks.

In late 2022, the ex-works price of pyraclostrobin technical went up on tight supply, reaching USD42,258/t in Oct., which approached the level during energy control in Nov. 2021 (USD43,169/t). With a short of supply during the Chinese New Year holiday, the price hovered at high first in early 2023, and then fell back rationally, which had touched USD24,941/t in June, down by 37% from USD39,583/t in Jan. In July, the price rose by 4.47% MoM to USD26,054/t as a result of successional suspension of producers for an overhaul, yet still down by 28.9% YoY, registering a general downtrend.

Forecasts on supply, demand and price in H2 2023

- Supply: In H2 2023, there are new capacities underway of delivering: on 24 July, Yongnong BioSciences Co., Ltd.'s 8,000 t/a high-efficiency pesticide technical technological renovation project passed the self-acceptance check on the completed construction, which included production lines for 200 t/a pyraclostrobin technical. However, since many producers have entered operation suspension for maintenance, supply of pyraclostrobin technical may be limited;
- Demand: Demand for pyraclostrobin technical shows an uptrend;
- Price: Overall, in the short term, inventory of pyraclostrobin technical is ample, leading to majorly stable price.

Figure 4.10-1 Ex-works prices of pyraclostrobin technical in China, July 2022–July 2023



Source: CCM

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