CCM Data & Business Intelligence

Pesticide Price Analysis in China in 2022

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Executive summary

Q1–Q3 of 2022 came in with a falling trend in the overall pesticide prices, down by 1.2% on average. According to China Agrichemical Price Index (CAPI), fungicides experienced more ups and downs in prices, while insecticides CAPI was fluctuating after negative growth before June.

Besides the global COVID-19 pandemic and geopolitical turmoil, there are various uncertainties like extreme weather destabilising the production of grains around the world and sending China's pesticide prices to high levels in 2022.

As of Sept. 2022, the ex-works prices of pesticide technical have moved lower since the start of the year; it is expected that such downtrend would linger on to the end of Q4.

Price changes of 15 selected technical products from Jan. to Oct. 2022, namely glyphosate, glufosinate-ammonium, atrazine, clomazone, fomesafen, imidacloprid, bifenthrin, lambda-cyhalothrin, abamectin, emamectin benzoate, azoxystrobin, prochloraz, thiophanate-methyl, metalaxyl and tebuconazole, are analysed in this issue.

For 2023, China's pesticide industry is viewed with bright prospects as the country is promoting industrialisation of GM crops.

Methodology

The report 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 1 USD/CNY exchange rate, Jan. 2016–2022

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
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	6.6401
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

Source: The People's Bank of China

1 Overview of the price changes of China's pesticide products

1.1 China Agrichemical Price Index (CAPI), Q1–Q3 2022

The first three quarters of 2022 witnessed a falling trend of China's pesticide prices, down by 1.2% on average. The China Agrichemical Price Index (CAPI) of herbicides was the highest in Jan. and then started to fall almost straight to Sept., with a small head-up in Aug. The CAPI of insecticides showed the least month-on-month changes among the other two categories (herbicides and fungicides) of 1.37% on average, bottoming out in May. Index number in this May was down by near 12.5% from that of Dec. 2021. The CAPI of fungicides displayed more ups and downs during the three quarters—it had once peaked in April and then pulled back in May and June before stably moving to Sept.

Table 1.1-1 Changes of China Agrichemical Price Index (CAPI), Q1–Q3 2022

Item	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Average
Pesticides	5.32%	-5.02%	-3.50%	-1.49%	-0.78%	-0.80%	-1.66%	0.08%	-2.95%	-1.20%
Herbicides	8.60%	-5.62%	-3.13%	-1.64%	-0.05%	-0.34%	-3.18%	0.24%	-4.14%	-2.23%
Insecticides	-1.72%	-1.94%	-5.30%	-3.44%	-0.67%	0.39%	0.95%	-0.15%	-0.83%	-1.37%
Fungicides	0.41%	-5.08%	-4.40%	3.51%	-5.49%	-4.14%	1.01%	-0.54%	0.32%	-1.85%
Average	**3.15%**	**-4.42%**	**-4.08%**	**-0.77%**	**-1.75%**	**-1.22%**	**-0.72%**	**-0.09%**	**-1.90%**	**-**

Source: China Crop Protection Industry Association (CCPIA)

Recently surveyed data show that 72% of the selected herbicide, 80% of insecticide and 93% of fungicide have registered declines in the average of the MoM growths from Jan. to Oct. 92% butachlor technical (herbicide), 97% tebuconazole technical (fungicide) and 70% emamectin benzoate technical (insecticide) and 95% acetamiprid technical (insecticide) marked the biggest declines during that period in the respective categories.

In Q4 2021, the prices of pesticide technical rose on the increased costs of raw materials. Some manufacturers reported positive profits by the end of the year but also worried the wait-and-see attitude building from the upstream to downstream.

In Jan.–April 2022, pesticide transaction was affected by the uncertainty in logistics across regions in China and the temporary production suspension of pesticide enterprises, mainly for the prevention and control of COVID-19 infections. In May–Oct. 2022, the decrease in pesticide prices has slowed down.

Table 1.1-2 Ex-works prices of major herbicide products in China, Jan.–Oct. 2022, USD/t

No.	Product	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Change, Oct. vs Jan.	Average MoM change
1	92% Butachlor technical	6,243	6,243	6,243	5,896	6,243	5,688	5,133	4,162	3,746	3,676	-41.11%	-6.73%
2	98% Fenclorim technical	27,747	26,359	23,585	22,891	22,197	22,197	20,810	19,423	19,423	19,423	-30.00%	-3.92%
3	95% Pretilachlor technical	7,630	7,353	7,630	6,937	6,729	6,729	6,104	5,966	5,827	5,411	-29.09%	-3.30%
4	95% Glyphosate technical	10,891	10,544	10,030	8,782	9,018	9,059	8,962	8,671	8,227	8,185	-24.84%	-2.93%
5	96% Fluroxypyr technical	27,747	27,747	27,053	24,278	24,278	24,278	24,417	24,972	24,417	24,140	-13.00%	-2.82%

No.	Product	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Change, Oct. vs Jan.	Average MoM change
6	95% Nicosulfuron technical	47,169	47,169	45,435	44,741	43,007	40,233	38,845	38,845	37,458	36,764	-22.06%	-2.73%
7	95% Cyhalofop-butyl technical	31,215	31,215	29,828	27,747	27,747	26,082	26,082	26,082	26,082	26,082	-16.44%	-2.37%
8	92% Acetochlor technical	6,590	6,590	6,590	6,590	6,243	5,896	5,827	5,688	5,480	5,480	-16.84%	-2.30%
9	95% Haloxyfop-P-methyl technical	38,845	38,429	34,683	33,296	32,602	31,909	30,937	30,521	30,799	30,799	-20.71%	-2.25%
10	96% Bensulfuron-methyl technical	33,296	30,521	30,521	29,134	27,747	27,747	27,747	27,747	27,747	27,747	-16.67%	-2.16%
11	95% Tribenuron-methyl technical	23,585	23,585	22,891	22,197	22,197	21,504	20,810	20,116	20,116	20,116	-14.71%	-2.12%
12	97% Diuron technical	7,630	7,353	6,520	6,382	5,966	6,312	6,520	6,520	6,520	6,520	-14.55%	-1.97%
13	95% Trifluralin technical	5,272	5,272	5,272	5,272	5,549	5,272	5,272	5,272	5,272	5,272	0.00%	-1.71%
14	95% Fenoxaprop-P-ethyl technical	27,747	27,747	27,053	26,359	26,359	26,359	25,666	25,666	25,666	25,249	-9.00%	-1.41%
15	97% Atrazine technical	5,688	5,688	5,411	5,411	5,411	5,272	5,272	5,272	4,994	4,994	-12.20%	-1.39%
16	97% Pyrazosulfuron-ethyl technical	47,863	41,620	41,620	41,620	41,620	41,620	41,620	41,620	41,620	41,620	-13.04%	-1.30%
17	97% Oxyfluorfen technical	34,683	34,683	34,683	34,683	33,851	33,296	33,851	31,909	31,909	31,492	-9.20%	-0.94%
18	95% Clomazone technical	16,648	16,648	16,648	16,509	16,370	15,954	16,370	16,370	16,370	16,370	-1.67%	-0.16%
19	95% Metsulfuron-methyl technical	18,729	18,729	18,729	18,729	18,729	18,729	18,729	18,729	18,729	18,729	0.00%	0.00%
20	80% Quinclorac technical	19,908	19,423	19,006	18,660	18,895	18,660	18,660	19,242	19,242	20,408	2.51%	0.04%
21	95% Fomesafen technical	19,978	19,700	19,423	19,700	19,700	19,700	19,700	19,700	19,284	19,284	-3.47%	0.32%
22	95% Quizalofop-P-ethyl technical	29,828	31,562	31,909	31,909	31,909	30,521	31,215	32,602	32,602	32,602	9.30%	0.93%

No.	Product	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Change, Oct. vs Jan.	Average MoM change
23	97% Metolachlor technical	6,937	6,937	6,937	7,214	7,214	7,214	7,214	7,214	7,214	7,630	10.00%	0.98%
24	95% Pendimethalin technical	8,601	8,810	8,324	8,810	8,810	8,810	8,810	8,810	8,810	8,810	2.42%	1.15%
25	42% Paraquat TK	3,215	3,226	3,255	3,229	3,123	3,077	4,013	3,977	3,899	3,779	17.54%	2.00%

Note: The USD/CNY exchange rate applied is USD1.00=CNY7.2081, sourced on 1 Nov., 2022 from the People's Bank of China.
Source: CCM

Table 1.1-3 Ex-works price of major insecticide products in China, Jan.-Oct. 2022, USD/t

No.	Product	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Change, Oct. vs Jan.	Average MoM change
1	70% Emamectin benzoate technical	112,651	102,246	93,270	87,402	84,488	82,060	80,881	80,118	79,633	76,816	-31.81%	-4.56%
2	95% Acetamiprid technical	29,134	26,706	23,931	22,059	21,504	21,018	20,935	20,810	20,047	20,158	-30.81%	-4.00%
3	97% Imidacloprid technical	29,134	27,053	24,278	22,197	21,504	21,504	21,434	21,850	21,850	21,767	-25.29%	-3.24%
4	97% Bifenthrin technical	49,250	47,169	44,395	42,314	39,539	39,192	38,845	38,845	38,152	37,805	-23.24%	-2.99%
5	95% Abamectin technical	98,500	98,500	92,951	90,176	87,402	83,933	83,933	82,546	81,852	79,910	-18.87%	-2.71%
6	95% Pymetrozine technical	23,585	22,197	21,504	20,810	21,087	20,532	21,157	20,324	20,019	19,769	-16.18%	-2.53%
7	95% Lambda-cyhalothrin technical	34,406	32,602	31,909	29,828	28,579	27,747	28,440	28,163	27,469	27,747	-19.35%	-2.17%
8	98% Chlorfenapyr technical	49,389	49,389	43,770	43,770	45,366	44,533	44,533	44,533	44,533	42,230	-14.49%	-2.11%
9	94% Cypermethrin technical	12,763	12,347	12,208	11,515	11,445	11,709	11,445	11,515	11,515	11,099	-13.04%	-1.78%
10	95% Chlorfluazuron technical	79,078	79,078	77,690	77,690	73,528	73,528	73,528	67,285	67,285	66,592	-15.79%	-1.66%
11	95% Diafenthiuron technical	21,226	21,226	21,226	20,810	20,810	20,810	20,116	20,116	20,116	19,423	-8.50%	-1.49%
12	97% Spirodiclofen technical	25,388	25,666	24,278	24,001	23,862	23,862	23,585	23,168	22,891	22,197	-12.57%	-1.43%

No.	Product	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Change, Oct. vs Jan.	Average MoM change
13	95% Fipronil technical	90,176	86,014	86,014	83,240	79,078	79,078	79,078	78,384	78,384	78,384	-13.08%	-1.37%
14	98% Deltamethrin technical	81,852	81,852	81,852	81,852	77,690	77,690	76,303	76,303	73,528	73,528	-10.17%	-1.22%
15	90% Methomyl SP	11,792	10,266	11,099	10,405	10,405	10,405	10,405	10,405	10,405	10,405	-11.76%	-1.11%
16	95% Azocyclotin technical	29,828	30,521	33,296	31,909	31,909	32,949	31,909	30,521	29,134	26,359	-11.63%	-1.11%
17	95% Beta-Cypermethrin technical	25,666	25,666	27,053	24,972	23,585	23,168	23,585	23,085	23,085	23,085	-10.05%	-0.99%
18	95% Pyridaben technical	15,261	15,261	14,567	14,567	14,428	14,428	14,428	14,567	14,428	14,428	-5.45%	-0.98%
19	97% Acephate technical	8,879	8,324	8,601	8,116	8,116	8,116	8,116	8,047	8,047	8,047	-9.38%	-0.94%
20	98% Methomyl technical	12,902	11,931	12,625	11,931	11,931	11,931	11,931	11,931	11,931	11,931	-7.53%	-0.72%
21	90% Phoxim technical	6,243	6,243	6,243	5,966	5,966	5,966	5,966	5,966	5,966	6,243	0.00%	-0.60%
22	90% Profenofos technical	12,070	12,070	12,070	11,654	11,654	11,584	11,584	11,468	11,468	11,468	-4.98%	-0.50%
23	75% Omethoate technical	7,422	7,422	7,325	7,131	7,131	7,131	7,131	7,131	7,131	7,131	-3.93%	-0.40%
24	98% Dimethoate technical	6,798	6,798	6,798	6,604	6,604	6,604	6,604	6,604	6,604	6,604	-2.86%	-0.29%
25	95% Buprofezin technical	10,433	10,433	10,433	11,099	10,821	10,821	10,821	10,821	10,405	10,405	-0.27%	-0.23%
26	98% Hexaflumuron technical	74,916	75,609	76,303	74,916	74,222	74,222	74,222	73,528	73,528	73,528	-1.85%	-0.18%
27	95% Chlorpyrifos technical	6,798	6,590	6,076	6,243	6,382	6,520	6,951	7,353	7,422	7,283	7.14%	-0.15%
28	98% Isoprocarb technical	6,035	6,035	7,422	6,104	6,104	6,104	6,104	6,104	6,104	6,104	1.15%	-0.02%
29	98% Carbofuran technical	15,954	15,954	15,954	15,954	15,954	15,954	15,954	15,954	15,954	15,954	0.00%	0.00%
30	95% Methidathion technical	12,486	12,486	12,486	12,486	12,486	12,486	12,486	12,486	12,486	12,486	0.00%	0.00%

No.	Product	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Change, Oct. vs Jan.	Average MoM change
31	99% Cyromazine technical	22,197	22,197	22,197	22,197	22,197	22,197	22,197	21,642	22,197	22,197	0.00%	0.01%
32	85% Triazophos technical	8,116	8,116	8,324	8,116	8,116	8,116	8,116	8,116	8,116	8,116	0.00%	0.01%
33	92% Fenvalerate technical	19,006	19,006	21,504	19,423	19,423	19,423	19,423	19,423	19,423	19,423	2.19%	0.35%
34	90% Propargite technical	7,908	8,047	7,769	8,047	7,908	7,908	7,908	8,047	8,324	8,324	5.26%	0.71%
35	90% Malathion technical	4,370	5,272	5,272	5,133	5,133	5,133	5,133	4,994	5,133	5,133	17.46%	1.81%

Note: The USD/CNY exchange rate applied is USD1.00=CNY7.2081, sourced on 1 Nov., 2022 from the People's Bank of China.
Source: CCM

Table 1.1-4 Ex-works price of major fungicide products in China, Jan.-Oct. 2022, USD/t

No.	Product	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Change, Oct. vs Jan.	Average MoM change
1	97% Tebuconazole technical	15,954	13,873	12,208	11,584	11,515	10,960	10,960	10,613	10,585	10,336	-35.22%	-5.46%
4	97% Myclobutanil technical	30,521	24,278	24,278	20,810	20,810	21,504	21,504	21,504	20,810	20,810	-31.82%	-3.46%
3	97% Prochloraz technical	12,763	11,792	10,127	9,018	8,601	9,434	9,434	9,434	9,018	8,879	-30.43%	-3.97%
2	98% Dimethomorph technical	16,648	14,914	13,873	13,526	12,486	12,139	12,139	12,000	12,000	11,792	-29.17%	-4.09%
6	97% Phosethyl Al technical	4,856	4,023	3,607	3,607	3,607	3,607	3,885	3,885	3,607	3,607	-25.71%	-2.97%
11	98% Cymoxanil technical	18,035	18,035	18,035	18,035	18,035	18,035	18,035	18,035	13,596	13,596	-24.62%	-2.46%
9	96% Trifloxystrobin technical	83,240	80,465	79,078	73,528	72,141	70,754	67,979	67,285	65,204	63,817	-23.33%	-2.77%
7	97% Hymexazol technical	24,278	22,613	22,891	22,197	21,365	21,365	20,810	20,532	20,255	19,423	-20.00%	-2.87%
8	95% Difenoconazole technical	29,481	27,747	26,359	24,278	24,278	24,001	24,903	25,319	24,486	24,278	-17.65%	-2.82%
12	95% Hexaconazole technical	22,197	20,810	19,700	18,729	18,729	18,729	18,729	18,729	18,313	18,313	-17.50%	-2.18%
10	95% Propiconazole technical	31,215	29,828	27,747	26,359	25,666	25,666	25,666	26,151	26,082	25,901	-17.02%	-2.63%

No.	Product	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Change, Oct. vs Jan.	Average MoM change
18	98% Propamocarb technical	9,711	9,711	9,711	8,324	8,185	8,185	8,185	8,185	8,185	8,185	-15.71%	-1.60%
5	97% Thiram technical	2,775	2,775	2,775	2,913	2,497	2,913	2,636	2,636	2,358	2,358	-15.00%	-3.27%
17	96% Thiophanate-methyl technical (white color)	7,075	6,937	6,867	6,659	6,520	6,520	6,243	6,243	6,104	6,035	-14.71%	-1.67%
16	98% Carbendazim technical (white color)	7,075	6,937	6,867	6,659	6,520	6,479	6,312	6,243	6,104	6,049	-14.51%	-1.84%
13	95% Triadimefon technical	12,763	12,486	11,792	11,515	12,486	11,237	11,099	11,099	11,099	11,099	-13.04%	-2.09%
14	96% Azoxystrobin technical	50,276	46,475	40,233	37,458	36,071	35,377	37,319	40,579	41,342	43,840	-12.80%	-2.03%
20	98% Metalaxyl technical	16,648	16,648	15,954	15,261	15,261	15,261	15,261	14,983	14,567	14,567	-12.50%	-1.31%
25	98% Chlorothalonil technical	3,330	3,121	2,775	2,775	3,052	2,983	2,983	2,983	2,983	2,983	-10.42%	-0.96%
19	90% Mancozeb technical	4,023	3,885	3,815	3,607	3,607	3,607	3,607	3,607	3,607	3,607	-10.34%	-1.40%
24	85% Propineb 85% technical	5,549	5,411	5,549	4,994	4,994	4,994	4,994	4,994	4,994	4,994	-10.00%	-0.99%
15	95% Tricyclazole technical	10,405	10,405	10,127	9,989	9,989	9,989	9,989	9,642	9,378	9,378	-9.87%	-1.99%
22	97% Epoxiconazole technical	68,673	67,285	65,204	65,204	65,204	58,268	64,511	64,511	63,817	62,430	-9.09%	-1.12%
21	80% Mancozeb WP	3,607	3,538	3,468	3,330	3,330	3,330	3,330	3,330	3,330	3,330	-7.69%	-1.16%
23	95% Iprodione technical	33,296	33,296	33,296	32,602	32,602	32,047	31,909	31,562	31,562	31,215	-6.25%	-1.04%
27	95% Flusilazole technical	55,493	55,493	55,493	55,493	56,880	55,493	55,493	55,493	55,493	55,493	0.00%	0.01%
26	95% Kresoxim-methyl benzene technical	48,556	50,637	50,637	50,637	49,250	49,250	47,863	47,863	48,556	48,556	0.00%	-0.77%
28	95% Isoprothiolane technical	6,243	6,243	6,937	6,382	6,659	6,659	6,659	6,729	6,729	6,729	7.78%	0.85%

Note: The USD/CNY exchange rate applied is USD1.00=CNY7.2081, sourced on 1 Nov., 2022 from the People's Bank of China.
Source: CCM

1.2 Influencing factors of pesticide prices in China

China's pesticide industry is closely related to changes in global food prices and international market demand. In late 2021–2022, various uncertainties in the global market have destabilised the production of grains around the world and sent prices of food and pesticides to high levels, such as more frequent and severe weather events and developing environmental protection regulations, in addition to the ongoing geopolitical turmoil and COVID-19 pandemic around the world.

-Extreme weathers reduce the yield of major grain crops around the globe

According to the July Drought report released by the Joint Research Centre of European Commission on 22 Aug., 2022, the extreme weather of drought is an imperative factor reducing European production of grain crops at the time and the report forecasts that the 2022 outputs of corn and soybean in Europe will be down by 16% and 15% from their respective five-year averages; in the US, American Federation of Agriculture estimates that the national crop yield in 2022 could be down by 1/3 year on year after severe droughts and record-breaking heat waves hit many parts of the country; in India, the grain-producing areas of 2.5 million ha afflicted by drought in Sept. has caused a loss of grains totaling 7–8 million tonnes, and the rice-growing area is expected to shrink by a larger margin than others; in China, the national average temperature in the autumn (Sept.–Nov.) of 2022 is estimated to be the highest since 1961—the southern provinces/regions suffered continuous rainfalls and high temperatures, while some northern regions were threatened by heavy rain affecting local grain production. The potential losses of crop yields are driving the food prices across the world and also motives farmers to purchase more agricultural supplies in growing plants. Pesticide prices are staying at high places.

- China's push for environmental protection

China is actively promoting environmental protection, which has limited the pesticide production. In 2015, China's Ministry of Agriculture introduced action plans that seek to achieve zero growth in the use of chemical fertiliser and pesticides by 2020. At the end of 2020, the government announced great achievements had been made according to the action plans. In 2021–2022, under powder rationing and greater efforts for the sake of environmental protection, some pesticide factories reduced the operating rate or suspended for production maintenance and upgrade, being likely to cause a decrease of pesticide output in 2022. In addition, since early 2022 when the price of energy products such as crude oil and petrochemical products started to spike, the prices of raw materials and/or intermediates have increased to varying degrees. All these factors from global demand to production and costs have contributed to the high price positioning of China's pesticides in 2022.

However, it is apparently that 2022 to date has seen downswing of prices of major pesticides in China. The sustainable weak domestic demand has played a crucial role in this case. In Q1–Q3 2022, prices of most of pesticides rolled back from their latest peaks seen in late 2021. In Sept.–Oct. 2022, a period traditionally with farmers stocking up agricultural supplies, most pesticide prices continued to reduce or leveled off.

- In the case of glyphosate, a typical herbicide, the ex-works price fell from USD12,227/t in Jan. to USD8,156/t in Oct., a decrease of 33%, down to the cost line. As a result, some small-scale factories were forced to suspend production operation at the end of Oct.
- For tebuconazole technical, a fungicide, the ex-works price marked a 40.9% decrease from March to Oct.
- Imidacloprid, an insecticide, was also affected, with price down by 37.5% from Jan. to Oct.

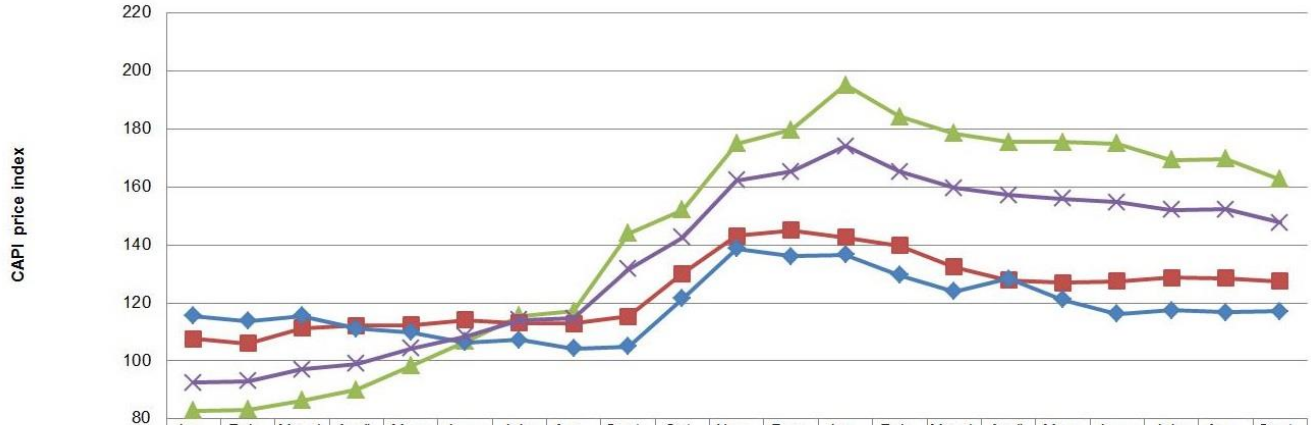
2 Price trend of China's pesticides in 2022

Statistics from the China Crop Protection Industry Association (CCPIA) show that pesticide prices in China in Nov. and Dec. of 2021 surged. Entering 2022, the pesticide prices started to fall back and the September CAPI of pesticides decreased by 15.11% from Jan.

Negative factors accountable for such long descent:

- Recurrence of COVID-19 in China, giving rise to stricter control measures across regions;
- Slow growth of the world economy, partly affected by the continuing high inflation;
- Mounting prices of bulked raw materials and of international shipping fee;
- Insufficient pesticide supply chain, and postponed and reduced replenishment from the downstream sectors, such as formulation manufacturers, pesticide retailers or traders.

Figure 2-1 China Agrochemical Price Index (CAPI), Jan. 2021–Sept. 2022



	Jan., 2021	Feb., 2021	March, 2021	April, 2021	May, 2021	June, 2021	July, 2021	Aug., 2021	Sept., 2021	Oct., 2021	Nov., 2021	Dec., 2021	Jan., 2022	Feb., 2022	March, 2022	April, 2022	May, 2022	June, 2022	July, 2022	Aug., 2022	Sept., 2022
Herbicides	82.86	83.2	86.39	90.14	98.32	106.76	115.61	117.06	144.02	152.11	174.93	179.75	195.2	184.23	178.46	175.53	175.45	174.85	169.29	169.70	162.68
Insecticides	107.66	106.03	111.35	112.27	112.32	114.1	113.07	112.93	115.28	130.16	143.1	145.06	142.57	139.8	132.39	127.84	126.98	127.47	128.68	128.49	127.42
Fungicides	115.6	113.7	115.53	111.11	109.98	106.37	107.2	104.23	104.92	121.53	138.66	136.01	136.57	129.63	123.92	128.27	121.23	116.21	117.38	116.75	117.12
Pesticides	92.44	93.1	97.1	99.01	104.34	108.46	114.14	114.58	131.63	142.67	162.2	165.28	174.07	165.33	159.55	157.17	155.95	154.71	152.14	152.26	147.77

Source: China Crop Protection Industry Association (CCPIA)

- Herbicides

The monthly CAPI of herbicides were on a downtrend from April to June, fluctuating around the level set in Nov. 2021. In Q2, the CAPI slid further, with the September index down by 16.66% from Jan., as a result of falling prices of many important raw materials, especially in the case of glyphosate technical: since June, the costs of yellow phosphorus and glycine have decreased, and there was shrinking downstream demand for several months in a row.

As of Oct. 2022, China's pesticide companies have their improved performance mainly comes from the herbicide business, especially glyphosate, 2,4-D, atrazine and others.

It is projected that the CAPI of herbicides would continue to fall, but only slightly in late 2022.

- Insecticides

Over the period of Q1–Q3, the CAPI of insecticide price dropped first and have hovered around 126–128 since April. In general, the overall price of insecticides moved within a small range. The category experienced sluggish downstream demand in Q1, like imidacloprid technical, acetamiprid technical and thiamethoxam technical; producers of the low-demand products operated at low level.

- Fungicides

The CAPI of fungicides in Sept. was 14.24% down from Jan. Compared with the peak in late 2021, the fungicide index has decreased a lot, mainly due to lowered prices of raw materials in Q1. The biggest drops from Jan.–Oct. took place in tebuconazole (-35.2%), myclobutanil (-31.8%), prochloraz (-30.4%). The April lockdowns in Shanghai, a municipality adjacent to Jiangsu Province, the major fungicide production base in China, had taken a heavy toll on the industry.

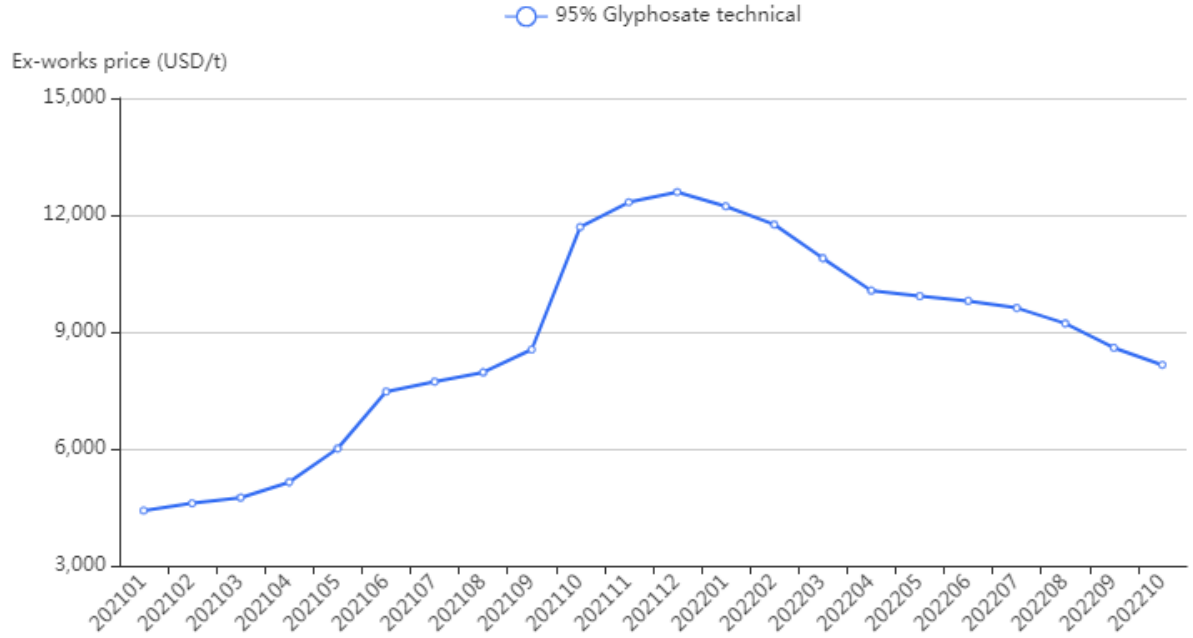
2.1 Herbicide prices

2.1.1 Glyphosate

The ex-works price of glyphosate technical had surged since early 2021, peaked at USD12,592/t in Dec. 2021, as no new capacity was built during the period but demand was rising, and then it headed downward in Jan.–Oct. 2022. In Oct., the price bottomed out at USD8,156/t, down by down at -5.1% MoM or -30.3% YoY.

It is expected that the ex-works price of glyphosate would drop sustainably, even though many manufacturers have lowered the operating rate based on the current adequate market supply along with the declining costs of raw materials. Nevertheless, global demand for glyphosate may
keep growing, to be boosted by rising food prices as well as boarder application in place of some highly toxic pesticides such as paraquat.

Figure 2.1.1-1 Ex-works price of 95% glyphosate technical, Jan. 2021–Oct. 2022



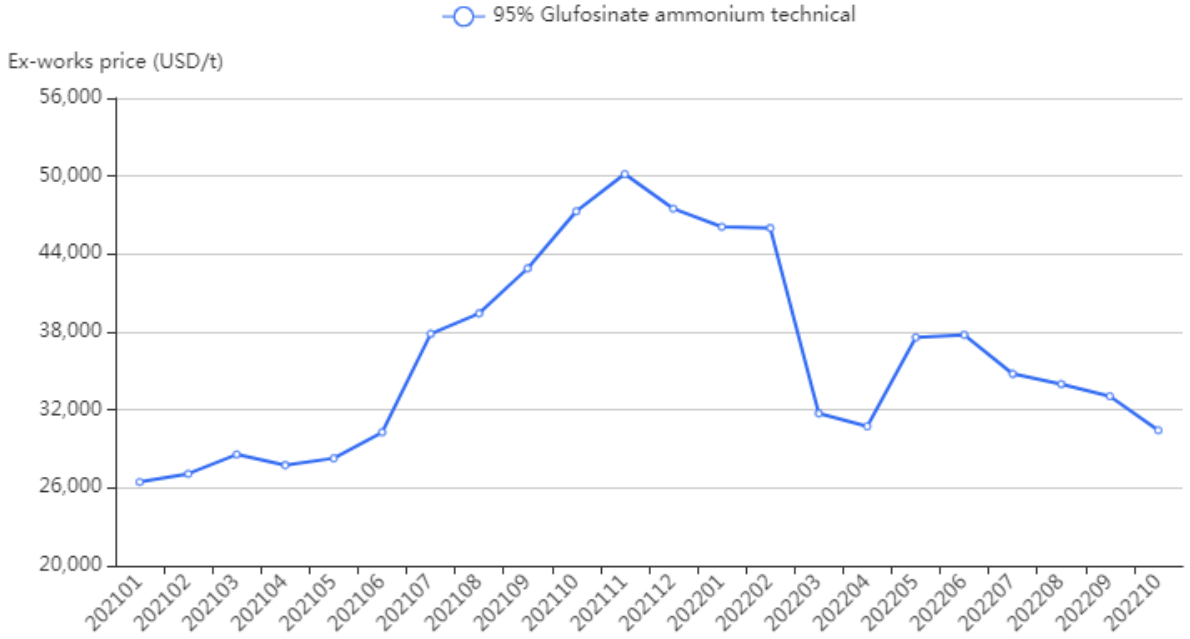
Source: CCM

2.1.2 Glufosinate-ammonium

In 2022, the ex-works price of 95% glufosinate-ammonium technical was brought down since supplies exceeded demand. The first drop of 2022 occurred in March, touching USD31,739/t, down 36.7% from the November peak of 2021 of USD50,162/t. Entering the traditional off-season starting around mid-July, the price of glufosinate-ammonium technical slipped again, after a brief rebound on the recovery of market demand especially that for foreign trade in Q2. The ex-works price in Q2 averaged USD35,365/t, down by 14.3% QoQ but up by 22.9% YoY.

In Sept., a month before the opening of the 20th CPC National Congress on 23 Oct., there were worries about confines on production and manufacturing to a certain degree. The price of glufosinate-ammonium took a further dive, to USD30,433/t in Oct., down 7.9% MoM. In Q4, the situation that supply exceeding demand is expected to continue, and the high-priced transactions for Chinese glufosinate-ammonium are unlikely.

Figure 2.1.2-1 Ex-works price of 95% glufosinate-ammonium technical, Jan. 2021–Oct. 2022

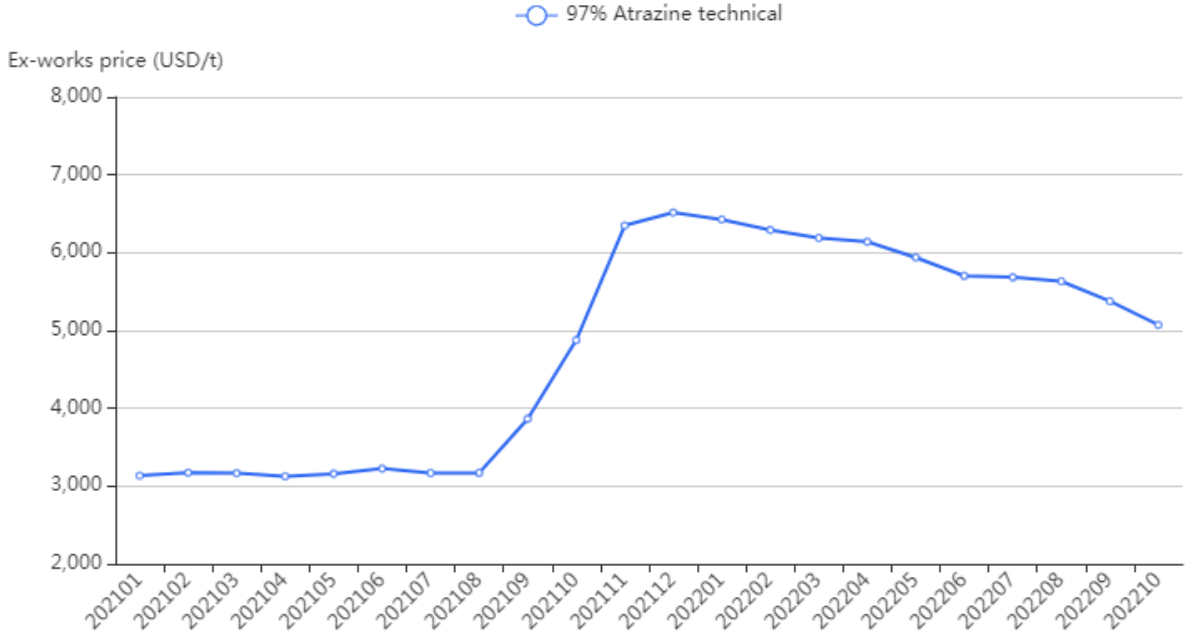


Source: CCM

2.1.3 Atrazine

The ex-works price of 97% atrazine technical averaged USD5,845/t during the period of Jan.-Oct. 2022, a 49.5% increase compared with the 2021 average price of USD3,910/t. Q4 is the off-peak season for atrazine sale and producers are holding a heavier stock than that in the previous months, offering quote of USD5,071/t in Oct., up by 4.0% YoY.

Figure 2.1.3-1 Ex-works price of 97% atrazine technical, Jan. 2021–Oct. 2022

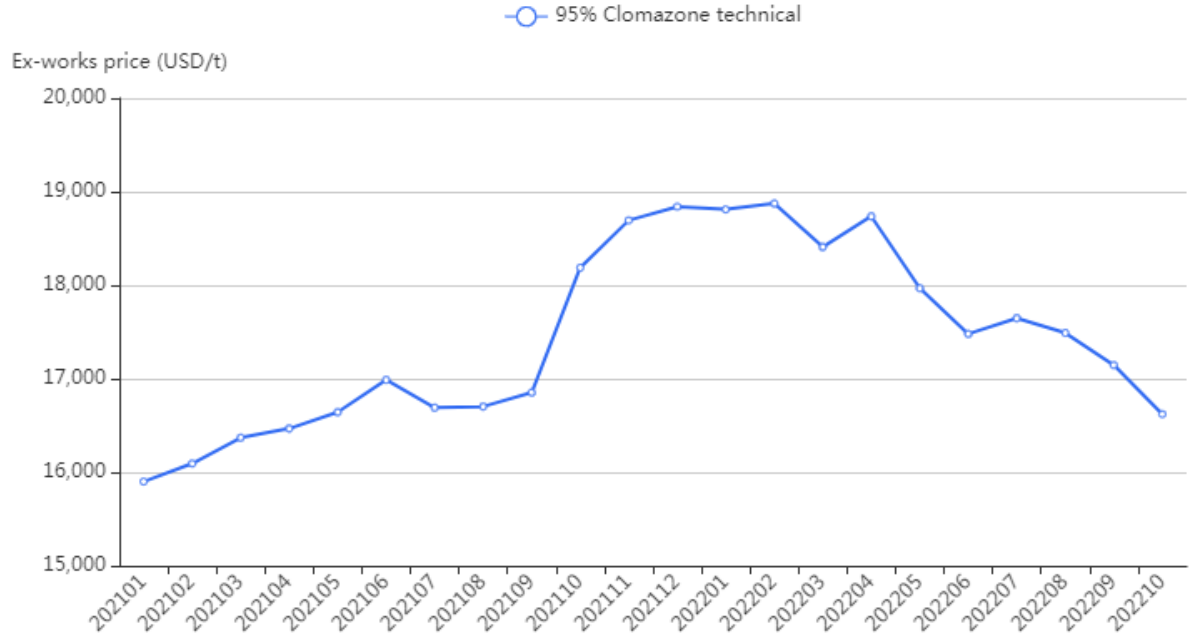


Source: CCM

2.1.4 Clomazone

In six months before April 2022, the ex-works price of 95% clomazone technical had stayed high amidst supply tension, with only a small dip in March. In May–Oct. 2022, the ex-works price of 95% clomazone technical saw a sharp drop. Starting from May, the price began to slip back due to weak overseas demand and increasing market supply as the domestic operating rates were picking up overall. Although in July the product price edged up to USD17,648/t as supply in some manufacturers remained tight, in the following few months it fell again with weak demand at home and abroad. In Oct., the ex-works price of 95% clomazone technical reached USD16,622/t, down by 3.06% MoM or 8.61% YoY.

Figure 2.1.4-1 Ex-works price of 95% clomazone technical, Jan. 2021–Oct. 2022



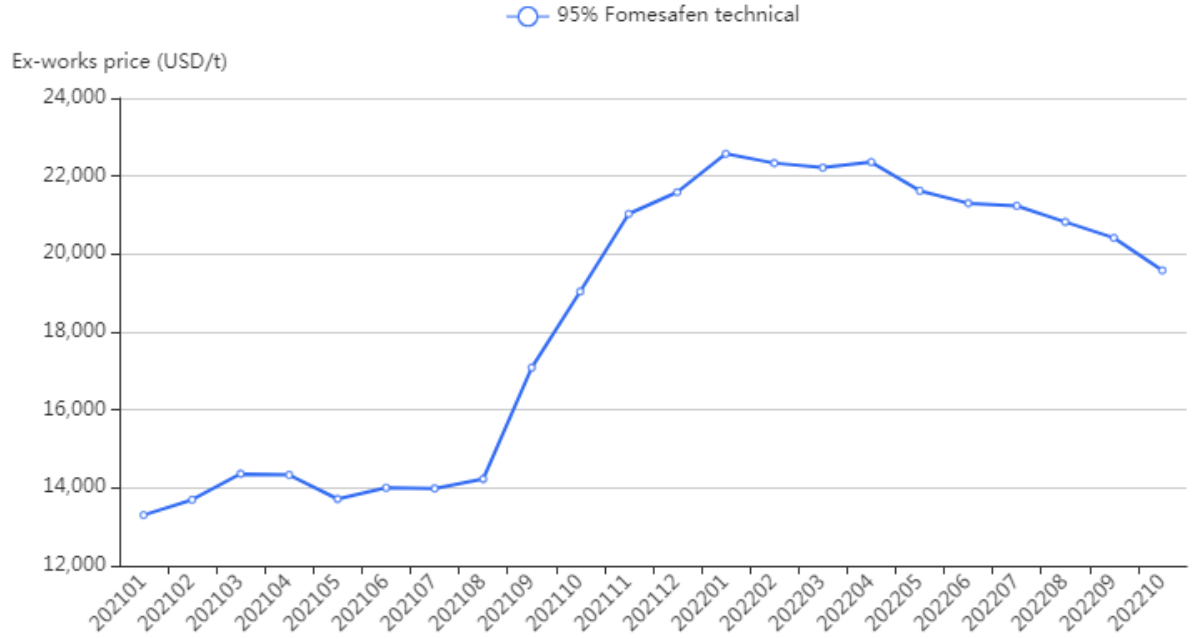
Source: CCM

2.1.5 Fomesafen

Due to the strict control on power consumption in Sept.-Dec. 2021, the price of raw materials of fomesafen technical rose and the fomesafen technical manufacturers were running at low operating rates, leading to a tight supply of fomesafen technical and its price hike.

In Jan.–April, 2022, the ex-works price of 95% fomesafen technical in China remained at high levels, thanks to the strong overseas demand for the product. Since May, the transport of pesticides has resumed gradually in the epidemic-affected production areas, facilitating the resumption of normal operation of pesticides. The ex-works price of fomesafen technical in China began its downtrend. In H2, the decreasing domestic demand has sent the price of fomesafen technical lower, which was down to USD19,580/t in Oct., 2022. As of Oct., the average monthly price in 2022 counted at USD21,447/t, up by 35.20% from USD15,863/t, the annual averaged price of 2021.

Figure 2.1.5-1 Ex-works price of 95% fomesafen technical, Jan. 2021–Oct. 2022



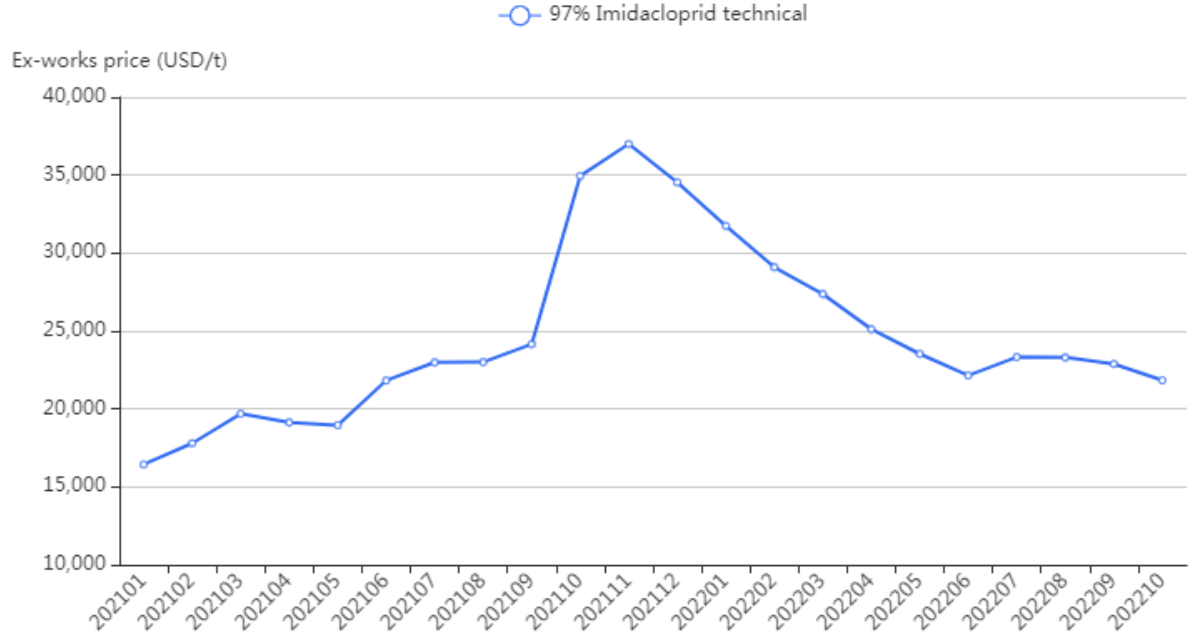
Source: CCM

2.2 Insecticide prices

2.2.1 Imidacloprid

The price of China's 97% imidacloprid technical has been in a downward movement so far in 2022, as market supply are building up with more imidacloprid factories resuming normal operation and a slight price reduction of intermediates like 2-Chloro-5-chloromethylpyridine (CCMP). Imidacloprid's ex-works price was down by 30.2% from USD31,743/t in Jan. to USD22,153/t in June. In this year, some production capacities of CCMP and imidacloprid were phased out for environment concerns, driving imidacloprid prices up to around USD22,000/t since July; yet the demand has diminished, which indicates that it is unlikely to see a sharp rise in the Q4 price.

Figure 2.2.1-1 Ex-works price of 97% imidacloprid technical, Jan. 2021–Oct. 2022



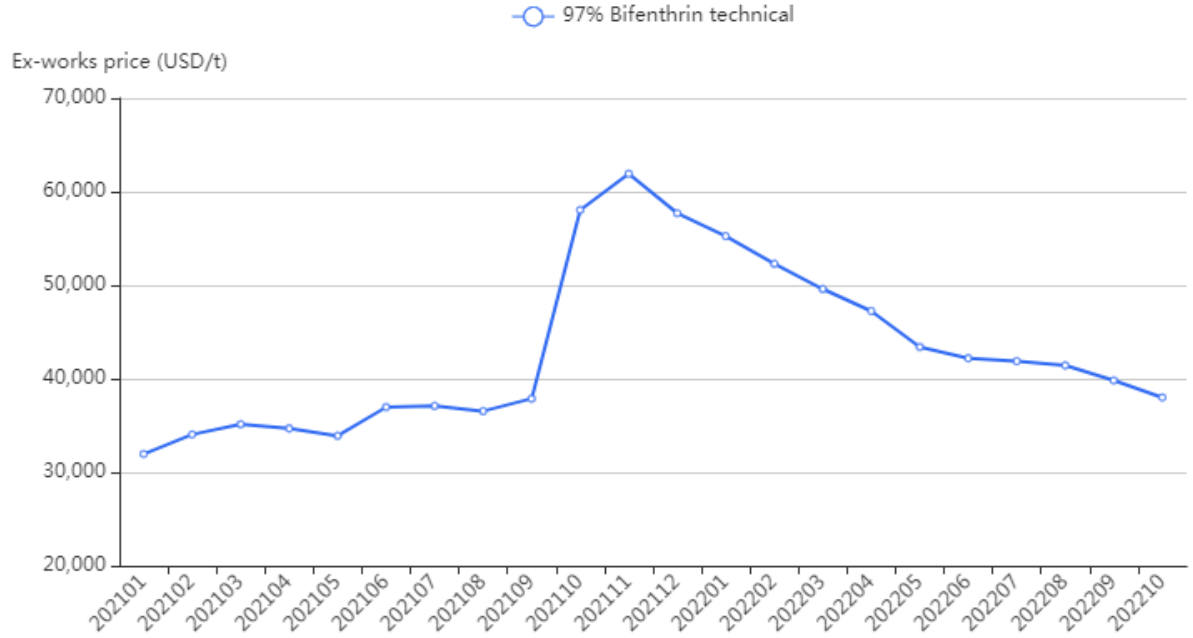
Source: CCM

2.2.2 Bifenthrin

With the recovery of logistics and production operation from the production restrictions that were carried forward in late 2021, China's bifenthrin technical producers received more overseas orders in 2022 and the ex-works price of 97% bifenthrin technical reached USD45,198/t in Jan.–Oct. 2022—even though the price was moving downward this year—up by 20% compared with the average of the same period of last year at USD 37,624 /t. For the reduced price of chemical raw materials and/or intermediates, the ex-works price of 97% bifenthrin technical fell to USD37, 997/t in Oct., down by 4.6% MoM or 34.5% YoY.

In 2022 China's overall capacity of bifenthrin technical is shoring up, which has also helped drive the product prices down. Jiangsu Youjia Plant Protection Co., Ltd., the wholly-owned subsidiary of Jiangsu Yangnong Chemical Co., Ltd. (Stock Code: 600486), has put 3,800 t/a of bifenthrin technical into trial production in Jan.; Jiangsu Changqing Agrochemical Co., Ltd. (Stock Code: 002391) plans to activate its new 1,000 t/a construction in Q4.

Figure 2.2.2-1 Ex-works price of 97% bifenthrin technical, Jan. 2021–Oct. 2022

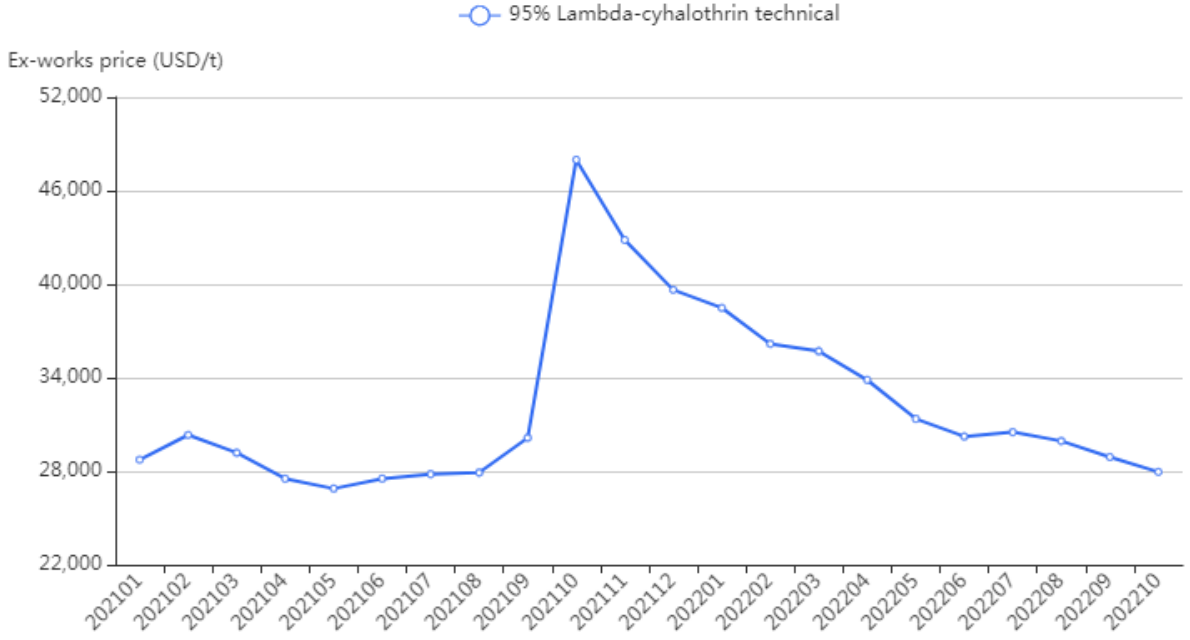


Source: CCM

2.2.3 Lambda-cyhalothrin

More capacity of lambda-cyhalothrin has been built in 2022. For instance, 2,000 t/a lambda-cyhalothrin technical are set up by Jiangsu Changqing Agrochemical Co., Ltd. (Stock code: 002391) in its Hubei production site. The ex-works price of 95% lambda-cyhalothrin technical went down correspondingly, averaged USD27,961/t in Oct. 2022, down by 41.7% YoY or 3.3% MoM. However, on the supply side, Zibo Qixiang Tengda Chemical Co., Ltd. (Stock code: 002408) was hit by a fire accident occurred on 7 Sept, which has put all its production operation into suspension, including lines for 62,000 t/a tert-Butanol, a core raw material of lambda-cyhalothrin. It is expected that the falls in price may stop or at least slow down in the following months.

Figure 2.2.3-1 Ex-works price of 95% lambda-cyhalothrin technical, Jan. 2021–Oct. 2022

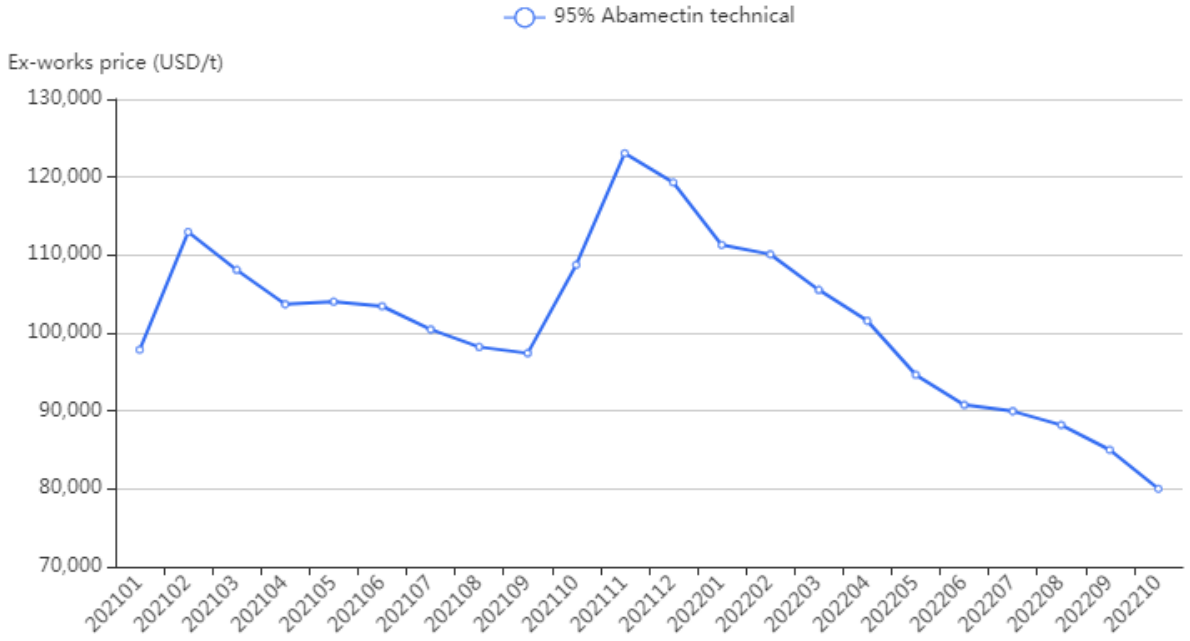


Source: CCM

2.2.4 Abamectin

In contrast with the volatility in 2021, the ex-works price of 95% abamectin technical are moving rather stably in 2022, heading downward in general so far. The October price landed at USD80,009/t, down 35.0% from the peak of USD123,068/t in Nov. 2021, attributed to the depressed market demand. Considering the ensuing peak season for winter storage, the demand for abamectin technical is expected to recover slowly in Q4.

Figure 2.2.4-1 Ex-works price of 95% abamectin technical, Jan. 2021–Oct. 2022

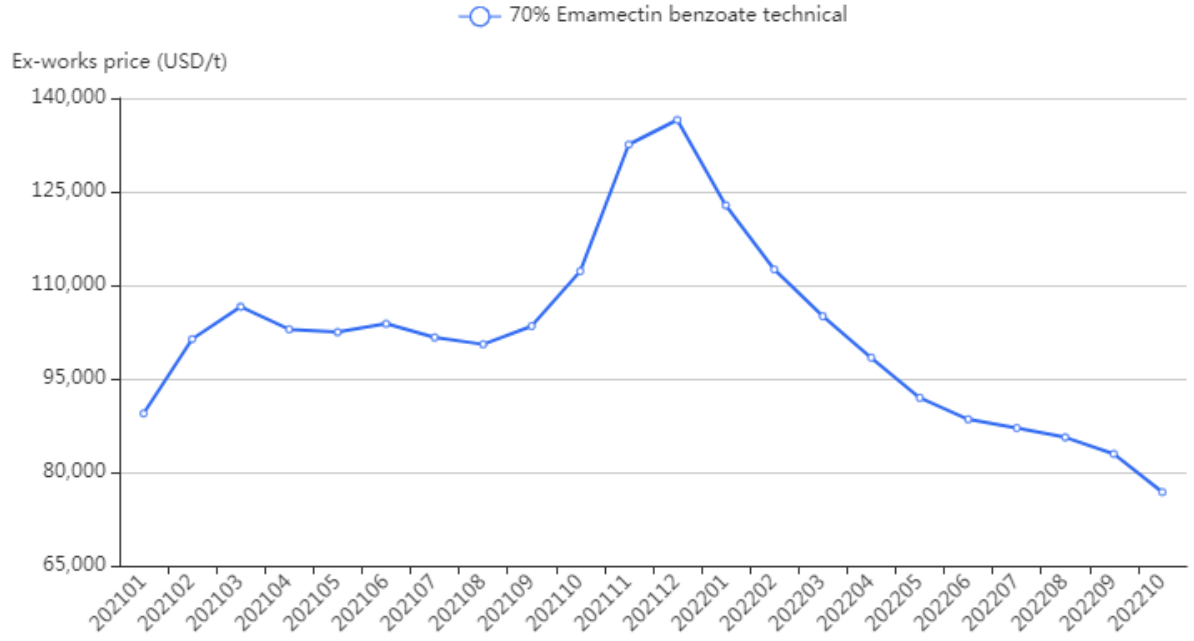


Source: CCM

2.2.5 Emamectin benzoate

The ex-works price of 70% emamectin benzoate technical in China recently peaked at USD136,514/t in Dec. 2021, and then has dropped sharply since then, reflecting the sluggish downstream demand in the downstream sector as well as growing emamectin benzoate supply. In June–Aug. 2022, the sector's production activities were struck by summer heat leading to lower supply to markets, and the overseas demand were increasing. The fall in the ex-works prices of emamectin benzoate technical slowed down. In Sept., the slack season started. The product price slipped to USD76,819/t in Oct., down by 7.39% MoM or 31.57% YoY.

Figure 2.2.5-1 Ex-works price of 70% emamectin benzoate technical, Jan. 2021–Oct. 2022



Source: CCM

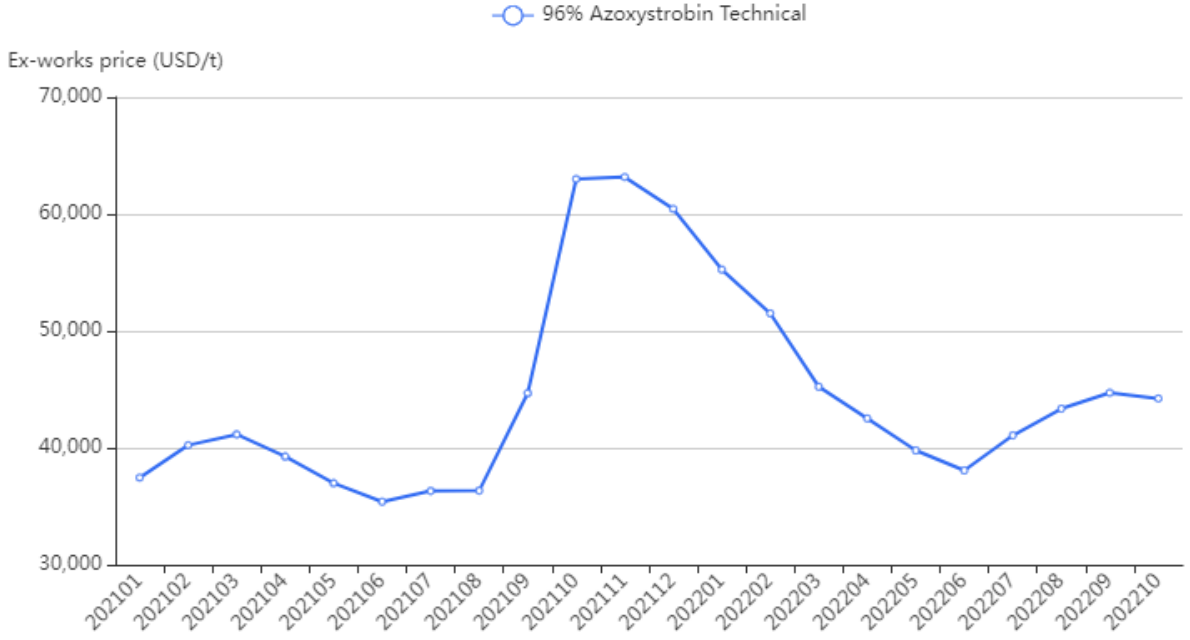
2.3 Fungicide prices

2.3.1 Azoxystrobin

In 2021, the ex-works price of 96% azoxystrobin technical had once peaked at USD62,999 in Oct., mainly due to temporarily suspended production and manufacturing in Jiangsu Province by power rationing and production restrictions, which brought in a tightened supply; and the rising prices of raw materials and intermediates, such as 2-Chlorophenylacetic acid and methanol, etc.

In 2022, such impacts have gradually diminished and the ex-works price of azoxystrobin fell from USD55,256/t in Jan. to USD38,071/t in June, representing a drop of 31.1%. In Q3, the price averaged at USD43,047/t made a comeback with an increase of 7.3% QoQ. It is likely that the ex-works price of azoxystrobin stays around USD44,000 in Q4 with the currently growing overseas demand.

Figure 2.3.1-1 Ex-works price of 96% azoxystrobin technical, Jan. 2021–Oct. 2022

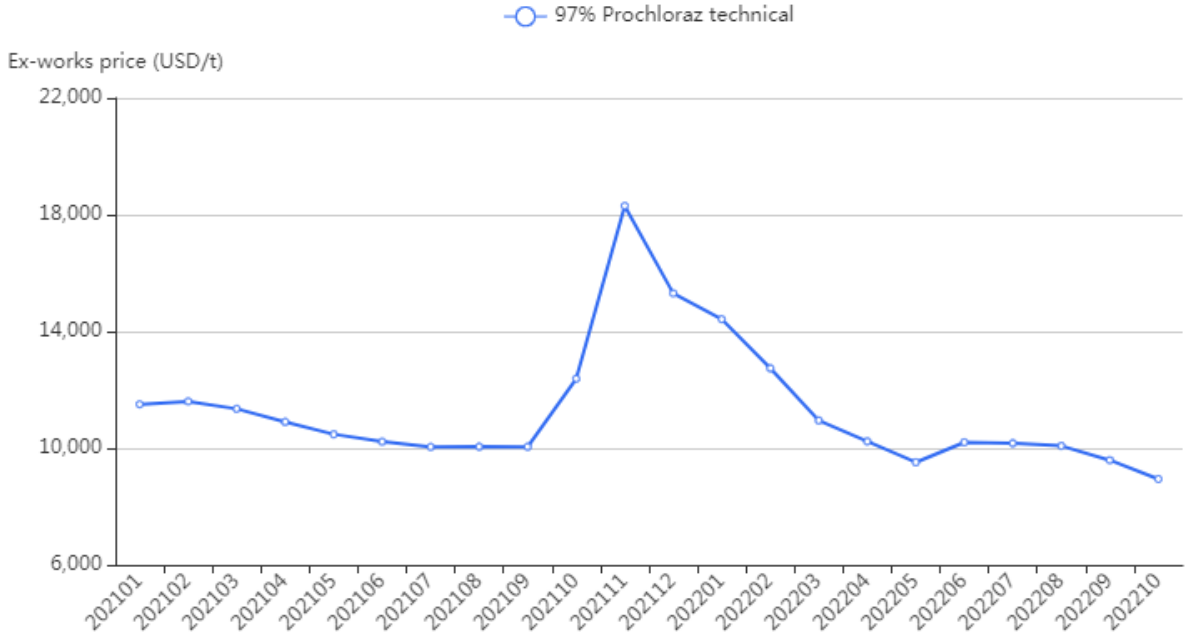


Source: CCM

2.3.2 Prochloraz

After peaking in Nov., 2021, the ex-works price of 97% prochloraz technical has been on the decline. The product price started to hover around USD10,000/t entering Q2 2022, and rested at USD8,944/t in Oct. which was lower than the 2021 bottom of USD10,045/t in July. Such low price point may attract domestic buyers on the application of citrus trees, spurring demand in months of Q4.

Figure 2.3.2-1 Ex-works price of 97% prochloraz technical, Jan. 2021–Oct. 2022



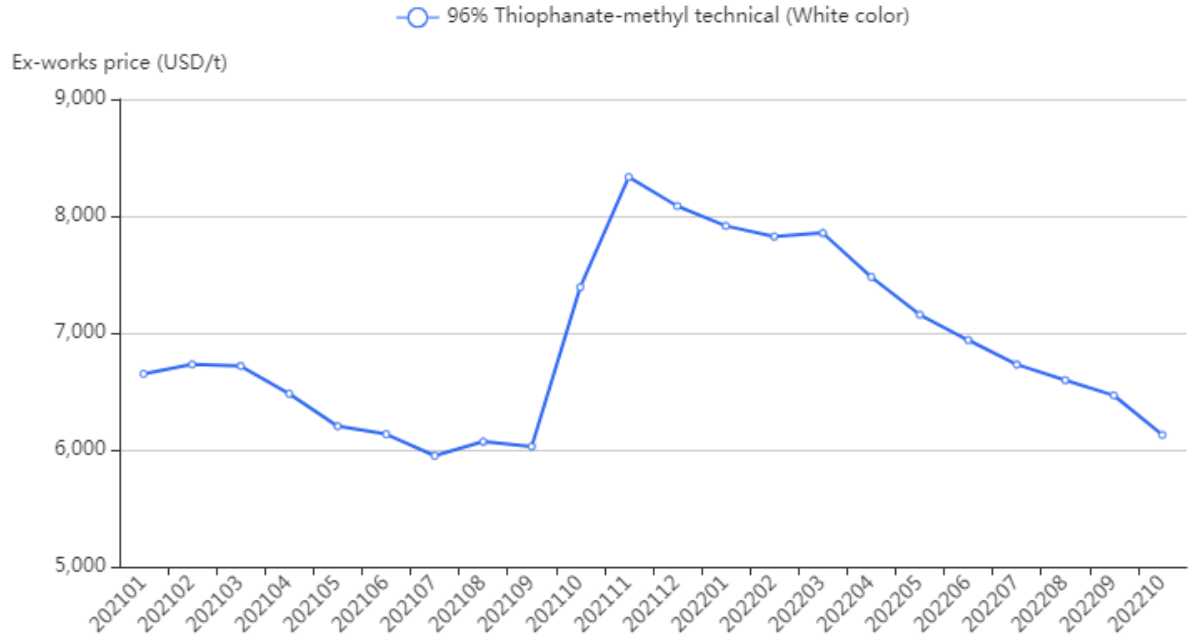
Source: CCM

2.3.3 Thiophanate-methyl

In 2022, the ex-works price of 96% thiophanate-methyl technical was on the decline but with year-on-year growth in Q1-Q3, meaning prices were higher than that of last year. In Oct., the price continued to fall to USD6,127/t, down by 5.24% MoM.

In recent years, China's factories focus on technological upgrading and the improvement of safety production, which are limiting supply of many products including thiophanate-methyl technical. The ex-works price of 96% thiophanate-methyl technical is expected to stay above USD6,000/t, with rising market demand.

Figure 2.3.3-1 Ex-works price of 96% thiophanate-methyl technical (white color), Jan. 2021–Oct. 2022

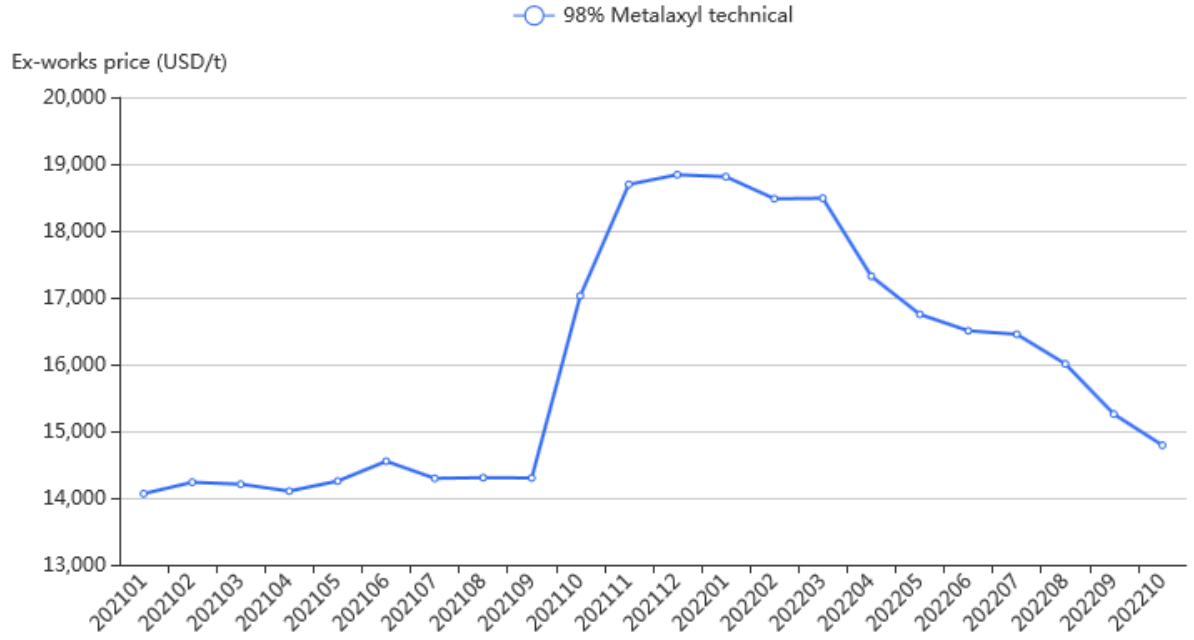


Source: CCM

2.3.4 Metalaxyl

In 2022, the ex-works price of 98% metalaxyl technical has retreated from few months of highs. China's power rationing coming to large-scale event since Sept. 2021, has sent prices of raw material and intermediates high, and that of metalaxyl technical. In April–July 2022, lockdowns were extended across some regions for COVID-19 control and prevention. Logistics were consequently affected leading low transactions made of metalaxyl technical products, and price went down. In Aug., limited number of operations remained open and they were only producing to orders, sending the price down further. In Oct., the ex-works price of 98% metalaxyl technical were USD14,790/t, close to the price level before last Sept.

Figure 2.3.4-1 Ex-works price of 98% metalaxyl technical, Jan. 2021–Oct. 2022

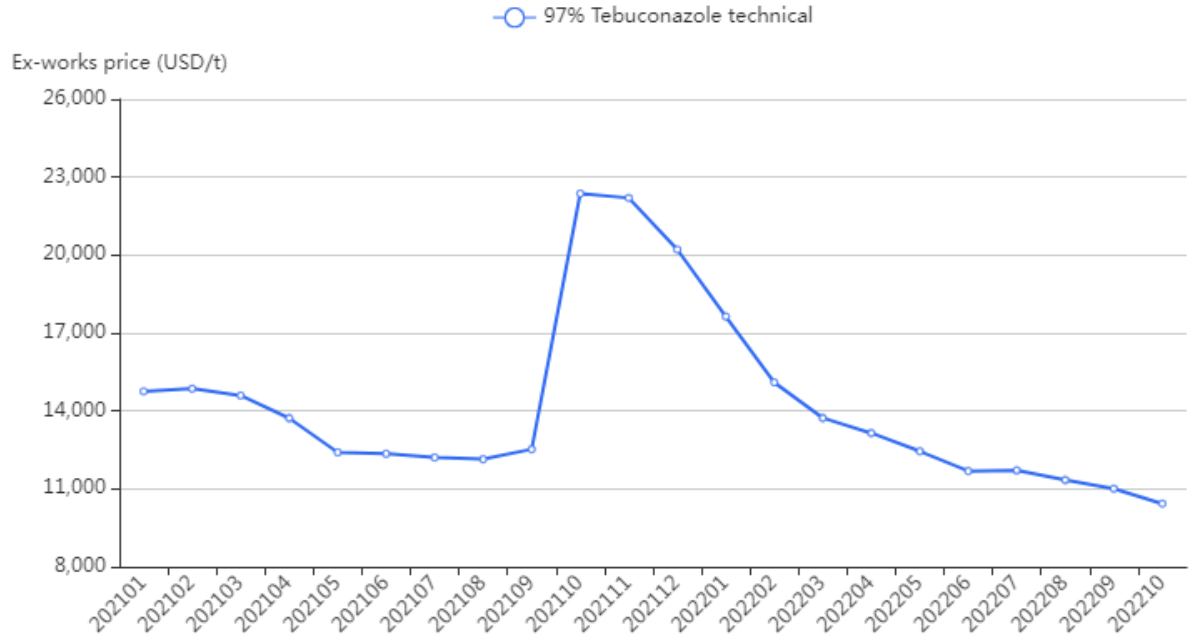


Source: CCM

2.3.5 Tebuconazole

China's power rationing prevailed in regions in Sept. 2021 had once sparked a spike in the ex-works price of tebuconazole technical that went all the way up to USD22,367/t in Oct. 2021. At the end of Oct. 2021, the price curve started to bend. In late Feb. of 2022, tebuconazole technical price dropped below the annual average of 2021 of USD15,361/t. In later months, the fall slowed down as a result of epidemic-driven increases in costs of intermediates, such as 1,2,4-triazole. The October price of 97% tebuconazole technical arrived at USD10,431/t, down 5.2% MoM.

Figure 2.3.5-1 Ex-works price of 97% tebuconazole technical, Jan. 2021–Oct. 2022



Source: CCM

3 Future forecast on pesticide industry in 2023

The overall downstream demand for pesticide technical is at low ebb right now. Chances are slim for an increase in price propelled by ascending demand. Some factors may encourage the price rise of pesticide in the coming future and there is one weighting in—genetically modified feed/biofuel crops, to be industrialised in China in 2023 or beyond.

During the period of 2014 and 2022, the global market has stayed close to the increment of genetically modified (GM) crops growing-areas, the prerequisite for demand growth of GM crop seeds, fertilisers and pesticides applicable to GM crops areas (e.g. glyphosate). Since June 2019, China has been planning industrialisation of GM crops in steps. In June 2022, the National Crop Variety Approval Committee (NCVAC) issued the drafts for national transgenic variety certification standards on soybean and corn. China's pesticide industry is viewed with bright prospects to embrace this new opportunity in the coming year, with the supporting factors as follows:

- Scale capacities built for raw materials such as yellow phosphorus and phosphorus trichloride;
- Scale capacities of quality technical products for exports;
- Efficient supply chain and complete petrochemical upstream;
- Strong technological background for producing newly off-patent pesticides;
- Recognised chemical clusters and industry parks ensuring safety in production;
- Cost-efficient energy products like coal, and labour force compared with developed countries, and more.

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