

Insecticides China Monthly Report 202212

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Headline

On 2 Dec., Shanghai Shengnong released an announcement, saying that it would acquire 60% share of Shanghai Dongfeng. This acquisition is conducive to enriching Shanghai Shengnong's insecticide formulation product variety.

On 5 Dec., the EI report of Gansu Yufengyuan's 33,500 t/a fine chemicals project (Phase I & Phase II) was approved by local authorities. If the project is successfully put into operation, capacity for raw materials of some BPU insecticides will be increased in the company.

Qilu Pharmaceutical's spinosad TC production line now operates normally. Limin Group's spinosad TC line has been put into trial production since this July and the company has planned to accept orders by the end of this year. Hebei Xingbai's production line of spinosad TC started construction in Feb. this year.

Hunan Haohua is applying for a listing on the New Third Board. On 7 Dec., the company responded to the first feedback from the listing review department of the board. During the periods—2020, 2021 and Jan.–May 2022, Hunan Haohua experienced declines in revenue and net profit.

In early Dec., the ex-works price of CCMP in China went down, so did the price of its downstream products imidacloprid TC and acetamiprid TC. In general, the year 2022 has witnessed a downtrend in the prices of some neonicotinoid insecticides, which was not only affected by weak sales, but also by price reduction in upstream raw materials.

Prices of most insecticides TC dropped in late Dec. and the year 2022 witnessed an overall downtrend in insecticide price in China. In late Dec., organophosphorus insecticides TC had mixed price trend and prices of most pyrethroid insecticides TC and nicotinoid insecticides TC continued a fall due to sluggish demand. It is worth noting that rapid change in COVID policy in China has greatly affected logistics, and market supply of insecticides may be influenced in the short term.

On 5 Dec., the Agro-Tech Extension and Service Centre of Shandong Province notified the results of prevention and control over crop pests and diseases in 2022 and made a prediction about pest and disease occurrence on wheat in 2023. In 2022, there is a general mild-to-moderate occurrence of pests and diseases on wheat; it is expected that a similar pest occurrence will be seen in 2023, with main pests like wheat aphids, wheat mites and underground insects.

On 7 Dec., the Work Safety Committee of the State Council decided to carry out nationwide special rectification and supervision of major risks and hidden dangers in production from the date onward till March next year, to strengthen production safety and to prevent and curb serious and major accidents. Provinces including Shandong, Jiangsu, Sichuan and Shanxi have issued notices for launching workplace safety inspections.

In Q3 2022, imidacloprid products from China were mainly exported to India, the US, Brazil, Argentina, etc. The export volume of imidacloprid TC to India nearly quadrupled YoY.

Corteva now has only four chlorpyrifos products left with valid registration in China, after the halt of registration renewal of expired chlorpyrifos products. As of 7 Dec., China had 1,123 chlorpyrifos products with valid registration, of which 68 were TC products and 1,055 were formulation products.







Editor's Note

In terms of market dynamics, in early Dec., the ex-works price of CCMP in China went down, so did the price of its downstream products imidacloprid TC and acetamiprid TC. Prices of most insecticides TC dropped in late Dec.; organophosphorus insecticides TC had mixed price trend and prices of most pyrethroid insecticides TC and nicotinoid insecticides TC continued a fall due to sluggish demand. In general, the year 2022 witnessed an overall downtrend in insecticide price in China. It is worth noting that rapid change in COVID policy in China has greatly affected logistics, and market supply of insecticides may be influenced in the short term.

In terms of company dynamics, Qilu Pharmaceutical's spinosad TC production line has been operating normally. Limin Group's spinosad TC line has been put into trial production since this July and the company has planned to accept orders by the end of this year. Hebei Xingbai's production line of spinosad TC has not been built up.

In terms of policy, on 7 Dec., the Work Safety Committee of the State Council decided to carry out nationwide special rectification and supervision of major risks and hidden dangers in production from the date onward till March next year, to strengthen production safety and to prevent and curb serious and major accidents.

The USD/CNY exchange rate in this newsletter is USD1.00 = CNY7.1225 on 1 Dec., 2022, sourced from the People's Bank of China. All the prices mentioned in this newsletter will include the VAT, unless otherwise specified.





Company Dynamics

Shanghai Shengnong to acquire 60% of Shanghai Dongfeng

Summary: On 2 Dec., Shanghai Shengnong released an announcement, saying that it would acquire 60% share of Shanghai Dongfeng. This acquisition is conducive to enriching Shanghai Shengnong's insecticide formulation product variety.

On 2 Dec., Shanghai Shengnong Pesticide Co., Ltd. (Shanghai Shengnong) released an announcement on a planned acquisition of 60% share in Shanghai Dongfeng Pesticide Factory Co., Ltd. (Shanghai Dongfeng), following its development strategy. Once the transaction completed, Shanghai Shengnong will take the place of Shanghai Jiayao Industrial Co., Ltd. as the controlling shareholder of Shanghai Dongfeng.

Currently, Shanghai Dongfeng holds several pesticide registration certificates for insecticide formulations and has production lines for products in different forms, such as WP, WG, SC, EC, EW, ME. The company has independently developed and designed nine production lines for DF products, of which three have been put into industrial operation. Shanghai Dongfeng has the processing capability to manufacture formulation products for domestic and foreign markets, and can ensure the product performance.

Shanghai Shengnong's existing products cover TC and formulations of insecticides, fungicides, herbicides, water-soluble fertilisers, etc. It is the first pesticide producer that has obtained registrations for pyriproxyfen-imidacloprid 10% SC, carbendazim-epoxiconazole 40% SC in China, and also the first to mass produce patented product cycloxyprid (under the brand name "Wenlong"). So far Shanghai Shengnong has acquired multiple registration certificates for insecticide and hygienic insecticide products. The acquisition of Shanghai Dongfeng will help expand Shanghai Shengnong's insecticide formulation portfolio.

TABLE 1: Shanghai Dongfeng's pesticide registrations, as of 5 Dec., 2022

No.	Active ingredient	Category	Formulation	Total content	Expiry date
1	Acetamiprid	Insecticide	EC	5%	2026/2/17
2	Buprofezin	Insecticide	WP	25%	2025/10/15
3	Acetamiprid	Acaricide	SL	20%	2025/8/27
4	Metolcarb	Insecticide	WP	25%	2025/7/14
5	Imidacloprid-monosultap	Insecticide	WP	70%	2024/12/19
6	Imidacloprid	Insecticide	WP	25%	2024/12/19
7	Imidacloprid	Insecticide	WP	10%	2024/12/19
8	Imidacloprid	Insecticide	SL	20%	2024/12/19

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





TABLE 2: Shanghai Shengnong's insecticide registrations, as of 5 Dec., 2022

No.	Active ingredient	Category	Formulation	Total content	Expiry date
1	Chlorfluazuron	Insecticide	TC	96%	2024/2/16
2	Diflubenzuron	Insecticide	TC	98%	2024/1/12
3	Pyriproxyfen	Hygienic insecticide	TC	95%	2028/2/18
4	Diethyltoluamide	Hygienic insecticide	TC	98%	2024/2/2
5	Ethyl butylacetylaminopropionate	Hygienic insecticide	TC	99.50%	2024/1/12
6	Metaldehyde	Insecticide/fungicide	TC	99%	2023/5/9
7	Acetamiprid	Insecticide	SL	20%	2028/2/28
8	Emamectin benzoate·pyriproxyfen	Insecticide	SC	20%	2028/1/14
9	Thiamethoxam	Insecticide	FS	35%	2027/9/18
10	Thiamethoxam	Insecticide	WG	70%	2027/7/18
11	Imidacloprid·pyriproxyfen	Insecticide	SC	10%	2027/4/17
12	Metaldehyde	Insecticide	WP	80%	2027/2/6
13	Alpha-cypermethrin	Insecticide	EW	10%	2027/1/19
14	Cyfluthrin	Hygienic insecticide	DP	0.30%	2026/10/18
15	Metaldehyde	Insecticide	GR	6%	2026/3/23
16	Imidacloprid	Insecticide	WG	70%	2026/1/4
17	Chlorfenapyr·pyriproxyfen	Insecticide	SC	30%	2025/3/19
18	Pyriproxyfen·beta-cypermethrin	Insecticide	ME	10%	2024/7/15
19	Bifenthrin·thiacloprid	Insecticide	SC	40%	2024/7/15
20	Diflubenzuron	Insecticide	SC	20%	2024/3/25
21	Diethyltoluamide	Hygienic insecticide	RQ	15%	2024/1/16
22	Chlorpyrifos	Insecticide	EC	40%	2024/1/14
23	Chlorfluazuron	Insecticide	EC	5%	2023/11/12





24	Pyriproxyfen	Insecticide	EC	100g/L	2023/9/29
25	Cycloxaprid	Insecticide	WP	25%	2023/8/29

Source: ICAMA

Gansu Yufengyuan to build capacity for raw materials of BPU insecticides

Summary: On 5 Dec., the EI report of Gansu Yufengyuan's 33,500 t/a fine chemicals project (Phase I & Phase II) was approved by local authorities. If the project is successfully put into operation, capacity for raw materials of some BPU insecticides will be increased in the company.

On 5 Dec., the environmental impact (EI) report of Gansu Yufengyuan Technology Co., Ltd. (Gansu Yufengyuan)'s 33,500 t/a fine chemicals project (Phase I & Phase II) was approved by the Jiuquan Ecological Environment Bureau. If the project is successfully put into operation, capacity for raw materials of some benzoylphenylurea (BPU) insecticides will be increased in the company.

Overview of this project

- Location: Chemical Industry Zone of Beihewan Circular Economy Industrial Park, Jinta County, Jiuquan City, Gansu Province;
- Total investment: USD32.29 million (RMB230 million) for the whole project, of which USD11.93 million (RMB85 million) is for the Phase I, and USD2.81 million (RMB20 million) for the Phase II;
- Construction content:
 - Phase I: production lines for 1,4-diamino-2,3-dihydroanthraquinone, 1-nitroanthraquinone, 1-aminoanthraquinone, 2-chloro-6-nitrotoluene and 3-chloro-2-methylaniline;
 - Phase II: production lines for 2,6-dichlorobenzaldehyde, 2,6-dichlorobenzonitrile and 2,6-difluorobenzamide.

Raw materials for BPU insecticides in this project

- 2-Chloro-6-nitrotoluene: it can be used in the synthesis of an intermediate for the insecticide hexaflumuron.
- 2,6-Dichlorobenzaldehyde, 2,6-dichlorobenzonitrile and 2,6-difluorobenzamide: they are closely related upstream-downstream products.
 - 2,6-Dichlorobenzaldehyde: it can be used to synthesise 2,6-dichlorobenzaldoxime, which is then used to synthesise 2,6-dichlorobenzonitrile;
 - 2,6-Dichlorobenzonitrile: it can be used to synthesise 2,6-difluorobenzonitrile, which is then used to synthesise 2,6-difluorobenzamide;
 - 2,6-Difluorobenzamide: it can be directly used in the production of diflubenzuron and hexaflumuron, or it can be further processed to produce other BPU insecticides such as chlorfluzuron and lufenuron.

Qilu Pharmaceutical's spinosad TC production line operates normally

Summary: Qilu Pharmaceutical's spinosad TC production line now operates normally. Limin Group's spinosad TC line has been put into trial production since this July and the company has planned to accept orders by the end of this year. Hebei Xingbai's production line of spinosad TC started construction in Feb. this year.

Spinosad has stomach and contact activities against pests; it boasts high insecticidal activity and no cross-resistance to many pesticides.





It is mainly used for the control of diamondback moths, beet armyworms, thrips, etc. In addition, spinosad decomposes fast and leaves low residual; it poses small hazard to mammals and aquatic organisms, and is safe to some pests' natural enemies such as lady beetle and *Chrysoperla sinica*. The product thus has promising development and application prospects. According to the Institute for the Control of Agrochemicals, Ministry of Agriculture (ICAMA), as of 7 Dec., 2022, there were 102 pesticide registration certificates for spinosad products in China, covering 8 products in TC form, 73 in SC, 7 in EW, 6 in WG, 3 in RB, 2 in DP, 2 in OD and 1 in ME.

In China, Qilu Pharmaceutical Co., Ltd. (Qilu Pharmaceutical) has successfully put its spinosad TC production line in active operation in Inner Mongolia. CCM's monitoring in early Dec. shows that Qilu Pharmaceutical's spinosad TC capacity has run normally. And the company has sufficient stock of the product.

Moreover, some other manufacturers is planning or have planned to build their own spinosad TC capacity, including:

- Limin Group Co., Ltd. (Limin Group) announced in July that its subsidiary Inner Mongolia New Veyong Bio-chemical Co., Ltd.'s novel green bio-products manufacturing project (with 500 t/a spinosad TC capacity built) had entered trial production, Limin Group also revealed in Nov. that it had planned to accept spinosad TC orders by the end of this year.
- Hebei Xingbai Pharmaceutical Group Co., Ltd. (Hebei Xingbai) started construction of an 800 t/a spinosad TC production line in Feb. this year.
- Shaanxi Nuozheng Biotechnology Co., Ltd. has revealed its plan to build 200 t/a spinosad TC capacity. Its environmental impact (EI) report was recently approved by local authorities.

Spinosad TC supply in China is expected to surge quickly, once these projects are completed and put into production.

TABLE 3: Registrations of spinosad TC in China, as of 7 Dec., 2022

No.	Product	Expiry date	Registrant
1	92% Spinosad TC	2027/10/29	Mesa Tech International Inc.
2	91% Spinosad TC	2027/9/18	Jiamusi Heilong Pesticide Co., Ltd.
3	92% Spinosad TC	2026/1/28	Qilu Pharmaceutical (Inner Mongolia) Co., Ltd.
4	90% Spinosad TC	2026/1/9	Corteva Agriscience
5	92% Spinosad TC	2025/3/23	Zhejiang Biok Biological Technology Co., Ltd.
6	91% Spinosad TC	2024/1/29	Inner Mongolia New Veyong Bio-chemical Co., Ltd.
7	90% Spinosad TC	2023/9/25	Henan Sanpu Baicao Biotech Co., Ltd.
8	92% Spinosad TC	2023/9/9	Hebei Xingbai Agricultural Technology Co., Ltd.

Source:ICAMA



TABLE 4: Some spinosad TC producers (potential ones included) in China

No.	Category	Company	Parent company	Spinosad TC: t/a	Project status
1	Active producer	Qilu Pharmaceutical (Inner Mongolia) Co., Ltd.	Qilu Pharmaceutical Co., Ltd.	600	Normal production
2	Potential producer	Inner Mongolia New Veyong Bio-chemical Co., Ltd.	Limin Group Co., Ltd.	500	Entering trial production
3		Hebei Xingbai Agricultural Technology Co., Ltd.	Hebei Xingbai Pharmaceutical Group Co., Ltd.	800	In the progress of construction
4		Shaanxi Nuozheng Biotechnology Co., Ltd.	Shaanxi Meibang Pharmaceutical Group Co., Ltd.	200	EI report approved
5		Shaanxi Gelida Biotechnology Co., Ltd.	/	200	EI report publicised

Source:CCM

Hunan Haohua applying for New Third Board listing

Summary: Hunan Haohua is applying for a listing on the New Third Board. On 7 Dec., the company responded to the first feedback from the listing review department of the board. During the periods—2020, 2021 and Jan.–May 2022, Hunan Haohua experienced declines in revenue and net profit.

Hunan Haohua Chemical Co., Ltd. (Hunan Haohua), mainly engaged in insecticide business, is applying for a listing on the National Equities Exchange and Quotations (New Third Board). On 7 Dec., Hunan Haohua responded to the first feedback from the listing review department of the board. During the reporting periods, 2020, 2021 and Jan.–May 2022, the company experienced declines in revenue and net profit, with gross profit margins falling rather quickly, at 52.85%, 37.59% and 27.58% respectively. Moreover, Hunan Haohua suffered a loss in June–Sept. 2022 due to lowered selling prices and shrinking gross margins of export products, and the maintenance expenditure.

Hunan Haohua is mainly involved in R&D, production and sales of nereistoxin insecticides. Its main products are the TC and formulations of cartap, monosultap, etc.; the flagship product cartap contributed to more than 70% of the revenue in the reporting periods. That is to say, Hunan Haohua is too much dependent on a single product series and that lie risks. In fact, the main reason for the decline in revenue in 2021 was a revenue reduction of USD8.63 million (RMB61.34 million) from cartap products.

During the reporting periods, the prices of cartap and monosultap continued to decline, mainly due to changes to inventory cycle, as well as an overall reduction in market demand as a result of the global COVID-19 pandemic, natural disasters in major importing countries and exchange depreciation. With the decreasing demand, the company had to take the initiative to adjust selling price. While the sales prices of its main products fell, Hunan Haohua was faced with rising costs brought by higher-priced raw materials. In 2021 and Jan.–May 2022, prices of the main raw materials, including sodium thiosulfate, allyl chloride, dimethylamine, sodium cyanide and phosphorus trichloride,



all increased. Therefore, the company's profit margins for cartap and monosultap products were greatly squeezed.

It is worth noting that Hunan Haohua's overseas customers are mainly from India and its main products exported are cartap products. During the reporting periods, its top five overseas customers were all from India, including ADAMA Ltd. (India), Krishi, Sumitomo Chemical Co., Ltd. (India). India's main rice-planting areas were hit by a severe drought in 2022 that affected 2.5 million ha, and in winter, rice-planting areas would decline, which would directly reduce the demand for pesticides. Facing such a situation, Hunan Haohua still believes that the unfavourable factors will not last for a long time, and the impact on its revenue is limited. For the long run, pesticides are needed to improve rice yield on limited arable land, and farmers usually stick with their pesticide use habits, so long-term demand for cartap products is relatively stable.





Market Analysis

Neonicotinoid insecticide price may go down under weak raw material market

Summary: In early Dec., the ex-works price of CCMP in China went down, so did the price of its downstream products imidacloprid TC and acetamiprid TC. In general, the year 2022 has witnessed a downtrend in the prices of some neonicotinoid insecticides, which was not only affected by weak sales, but also by price reduction in upstream raw materials.

In early Dec., the ex-works price of 2-chloro-5-chloromethylpyridine (CCMP) in China stood at USD13,900/t (RMB99,000/t), slipped by 1% MoM. In fact, starting from Nov. 2021, CCMP price has gone through almost continued declines. In early Dec., the ex-works prices of downstream products, imidacloprid TC and acetamiprid TC, were also lowered. The imidacloprid TC price came down by around 10% MoM, mainly due to weak sales. The supply of this product has been stable as some major imidacloprid TC producers have kept normal operation, such as Shandong United Pesticide Industry Co., Ltd., Hebei Yetian Agrochemicals Co., Ltd. and Shandong Hailir Chemicals Co., Ltd.

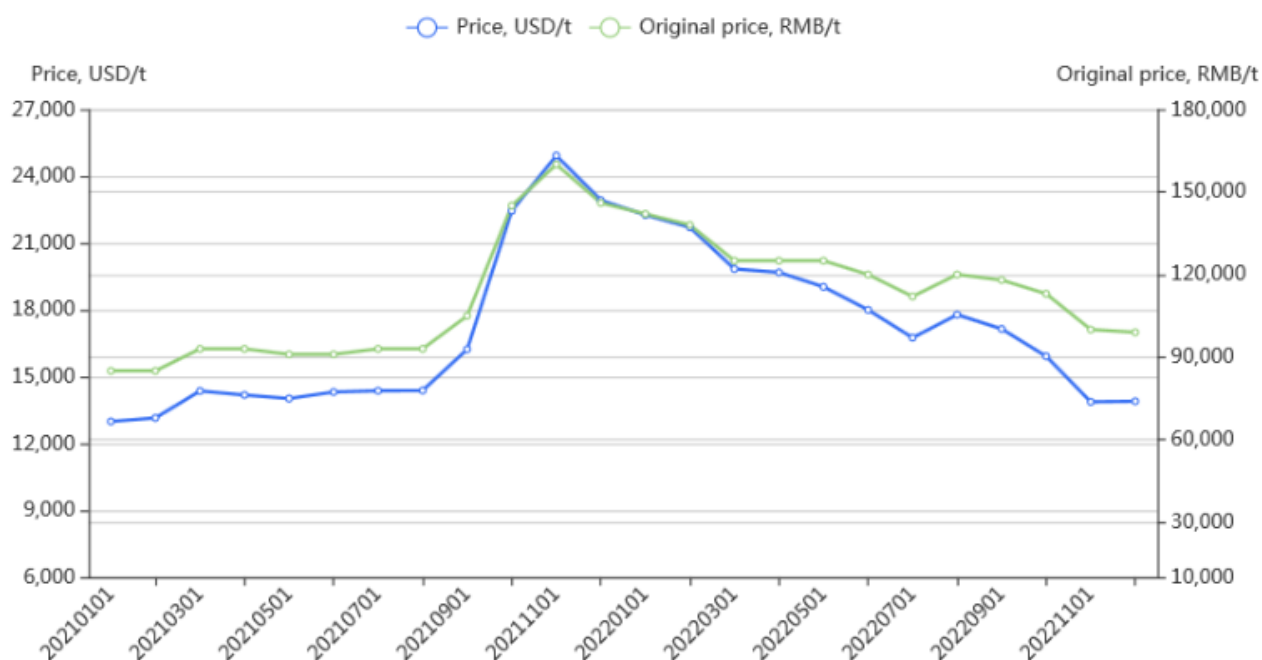
In general, the year 2022 has witnessed a downtrend in the prices of some neonicotinoid insecticides, which was not only affected by weak sales, but also by price reduction in upstream raw materials. Main raw materials of neonicotinoid insecticides include CCMP, 2-chloro-5-chloromethylthiazole (CCMT), 3-methyl-4-nitroiminoperhydro-1,3,5-oxadiazine, 2-nitroaminoimidazoline, ethyl N-cyanoethanimideate, etc. Price trends of these products usually can impact the prices of downstream products.

- CCMP is mainly used in the production of imidacloprid, acetamiprid, nitenpyram, etc. The downturn in the TC market has forced the product to go lower. At the same time, some of those TC manufacturers have themselves owned the supporting equipment for raw material CCMP. The product is expected to continuously decline or keep stable in the short term.
- CCMT is mainly used in the production of thiamethoxam, clothianidin, etc. and this product in China has experienced overcapacity. It is worth noting that the activity of CCMT decreases with prolonged storage, making it impossible to make large inventories. Therefore, during the peak season for downstream TC products, there are some price fluctuations of CCMT due to the timing of availability. The downturn in thiamethoxam TC and clothianidin TC has pushed the price of CCMT back down to a lower level.
- One raw material for 3-methyl-4-nitroiminoperhydro-1,3,5-oxadiazine is 1-methyl-3-nitroguanidine, whose production involves nitration reaction, and whose capacity in China is relatively concentrated. Some Chinese 3-methyl-4-nitroiminoperhydro-1,3,5-oxadiazine producers outsource the raw material due to the limitation of production technology. Currently, the price of 3-methyl-4-nitroiminoperhydro-1,3,5-oxadiazine is still at a high level, and the manufacturers mainly fulfil their orders.
- 2-Nitroaminoimidazoline and ethyl N-cyanoethanimideate have a stable supply-demand relation in the market, thanks to the previously issued *Joint Declaration on Consciously Maintaining Order in Pesticide Market—Not Supplying 2-Nitroaminoimidazoline & Ethyl N-cyanoethanimideate to Unqualified Enterprises*.
- Markets of basic raw materials such as calcium carbide, DMF, acrylonitrile and chlorine have been weak, too.

Weak pesticide TC market can sometimes force a similar downtrend in raw material market, which is seen in the continued decline of CCMP and CCMT prices. It is worth noting that the prices of 3-methyl-4-nitroiminoperhydro-1,3,5-oxadiazine, 2-nitroaminoimidazoline, and ethyl N-cyanoethanimideate are still kept high. If the prices of these products fall later, it may push the prices of neonicotinoid insecticides down further.



FIGURE 1: Ex-works price of 2-chloro-5-chloromethylpyridine (CCMP) in China, Jan. 2021–Dec. 2022



Source: CCM

Prices of most insecticides TC drop in late Dec.

Summary: Prices of most insecticides TC dropped in late Dec. and the year 2022 witnessed an overall downtrend in insecticide price in China. In late Dec., organophosphorus insecticides TC had mixed price trend and prices of most pyrethroid insecticides TC and nicotinoid insecticides TC continued a fall due to sluggish demand. It is worth noting that rapid change in COVID policy in China has greatly affected logistics, and market supply of insecticides may be influenced in the short term.

In late Dec., prices of most insecticides TC dropped. Organophosphorus insecticides TC had mixed price trend and prices of most pyrethroid insecticides TC and nicotinoid insecticides TC continued going down for the sluggish demand.

Organophosphorus insecticides: Ex-works prices of organophosphorus insecticides TC had mixed price trend. Prices of profenofos TC and malathion TC increased, while the price of chlorpyrifos TC decreased. Main reason for the fall of chlorpyrifos price is the sluggish domestic demand. Major chlorpyrifos manufacturers have operated normally, including Hubei Benxing Agrochemical Co., Ltd., Nanjing Red Sun Co., Ltd. and Jiangsu Fengshan Group Co., Ltd. Considering a relatively slack demand for organophosphorus insecticides in China, their ex-works prices may decline in the short term.

Pyrethroid insecticides: Ex-works prices of most pyrethroid insecticides TC were lowered mainly due to slow sales. Prices of bifenthrin TC, lambda-cyhalothrin TC, cypermethrin TC and deltamethrin TC decreased, of them the price of bifenthrin TC dropped by over 3% MoM. It is worth noting that the continued weak pyrethroid insecticides TC market has forced down the price of some raw material products. For instance, the price of lambda-cyhalothric acid declined recently. Considering downstream demand may not recover soon, price fall is expected for products under this category in the short term.



Nicotinoid insecticides: Ex-works prices of imidacloprid TC and acetamiprid TC went down for lacklustre demand, both dropping by 4% MoM. Though prices of 2-chloro-5-chloromethylpyridine and 2-chloro-5-chloromethylthiazole declined, prices of other upstream raw materials of nicotinoid insecticides have been kept at a high level, such as 1-methyl-3-nitroguanidine, 3-methyl-4-nitroiminoperhydro-1,3,5-oxadiazine, 2-nitroaminoimidazoline and ethyl N-cyanoethanimideate. It is worth noting that with adjusted COVID policy in China, upstream and downstream factories have been under growing pressures. Ex-works prices of nicotinoid insecticides TC may keep stable under such pressures and against sluggish demand in the short term.

In 2022, the price index for insecticides followed an overall downtrend from Jan. to Nov. and a fall in Dec. is expected. Market demand for insecticides has stayed low this year, with prices of most insecticide products gradually slipping from the peak witnessed in Q4 2021.

TABLE 5: Ex-works prices of major insecticide TC products in China in late Dec. 2022

Category	Product	Ex-works price (RMB/t)	Ex-works price (USD/t)	MoM change
Organophosphorus insecticide	90% Malathion technical	38,000	5,335	5.56%
	90% Profenofos technical	84,000	11,794	1.61%
	95% Chlorpyrifos technical	47,000	6,599	-3.49%
	90% Phoxim technical	45,000	6,318	0.00%
Pyrethroid insecticide	97% Bifenthrin technical	255,000	35,802	-3.77%
	95% Lambda-cyhalothrin technical	185,000	25,974	-2.63%
	94% Cypermethrin technical	81,500	11,443	-2.40%
	98% Deltamethrin technical	530,000	74,412	-1.85%
Nicotinoid insecticide	97% Imidacloprid technical	135,000	18,954	-4.66%
	95% Acetamiprid technical	130,000	18,252	-4.06%
Antibiotic insecticide	70% Emamectin benzoate technical	511,000	71,744	-2.11%
	95% Abamectin technical	540,000	75,816	-0.37%

Note: MoM change is calculated with RMB price.

Source: CCM





TABLE 6: China Agricultural Price Index (CAPI) for insecticides, Jan.–Nov. 2022

Month	CAPI for insecticides	MoM change
Jan.	142.57	-1.72%
Feb.	139.80	-1.94%
March	132.39	-5.30%
April	127.84	-3.44%
May	126.98	-0.67%
June	127.47	0.39%
July	128.68	0.95%
Aug.	128.49	-0.15%
Sept.	127.42	-0.83%
Oct.	126.64	-0.61%
Nov.	122.51	-3.26%

Source: China Crop Protection Industry Association (CCPIA)





Pest

Shandong: wheat aphids & wheat mites, major pests on wheat in 2023

Summary: On 5 Dec., the Agro-Tech Extension and Service Centre of Shandong Province notified the results of prevention and control over crop pests and diseases in 2022 and made a prediction about pest and disease occurrence on wheat in 2023. In 2022, there is a general mild-to-moderate occurrence of pests and diseases on wheat; it is expected that a similar pest occurrence will be seen in 2023, with main pests like wheat aphids, wheat mites and underground insects.

On 5 Dec., the Agro-Tech Extension and Service Centre of Shandong Province notified the results of prevention and control over crop pests and diseases in 2022 and predicted pest and disease occurrence on wheat in 2023. In 2022, there is a general mild-to-moderate occurrence of pests and diseases on wheat in Shandong, with pests, weeds, diseases and rodents attacking some 34.60 million ha of farmland. Two major pests, oriental migratory locust and fall armyworm, the former occurred moderately, covering an area of 0.22 million ha, and the latter occurred later and thus more mildly than last year and the average, with an attacked area of 77.83 ha.

The centre expects in 2023 a mild-to-moderate occurrence of pests and diseases on maize, and a moderate occurrence on wheat; the occurrence on wheat will be heavier than 2022 but close to multiyear average. The predicted total area of wheat fields that will be attacked reaches 6.67 million ha. Pest occurrence will be much the same as 2022, with main pests like wheat aphids, wheat mites and underground insects.

Following prevention and control measures for wheat aphids and wheat mites are recommended when just single pest occurs in the fields:

- When wheat aphid population in 100 plants surpasses 800, or the ratio of natural enemies to wheat aphids is less than 1:150, selective insecticide pirimicarb and neonicotinoid pesticides can be sprayed, or biological pesticides such as matrine, *Metarhizium* spp. can be used.
- When on average there are over 200 wheat mites on plants in a 33 cm-line or at least 6 mites in each plant, it is recommended to use pesticides for control such as abamectin, bifenthrin. Besides, due protection for natural enemies should be provided. Selective pesticides and product forms with less damage to natural enemies are highly recommended, such as pirimicarb, thiamethoxam, acetamiprid and *Metarhizium* spp.





Policy

Some provinces carry out wide-range workplace safety inspection

Summary: On 7 Dec., the Work Safety Committee of the State Council decided to carry out nationwide special rectification and supervision of major risks and hidden dangers in production from the date onward till March next year, to strengthen production safety and to prevent and curb serious and major accidents. Provinces including Shandong, Jiangsu, Sichuan and Shanxi have issued notices for launching workplace safety inspections.

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Shandong Provincial Emergency Management Department has decided to organise year-end workplace safety inspections across the 16 cities in Shandong from 12 Dec., 2022 to 20 Jan., 2023. The inspections target key industries and sectors such as non-coal mines, hazardous chemicals, fireworks, industrial trade. During the inspection period, the government would adopt online video inspection as well as offline supervision via unannounced visits. Four enforcement supervision teams will be set up to carry out secret inquiries and visits to check the enforcement in the cities and counties.

Since 25 Nov., Jiangsu Province has carried out winter workplace safety special rectification action. The action has focused on 10 key industries like hazardous chemicals, mining and gas, and strengthened the investigation and rectification of risks and hidden dangers. It has highlighted safety precautions for winter and strengthened the supervision of major sources of hazardous chemicals. It has paid due attentions to key industries, key places, weak links and outstanding problems in fire prevention and control in winter and spring, and would carry out precision rectification on these fronts. For a wide range of small and medium-sized industrial enterprises, ten measures were given, covering fire prevention, the use of hazardous chemicals, dangerous operations and the implementation of responsibilities.

Sichuan Provincial Emergency Management Department has recently issued a special action plan for workplace safety at the year-end and new beginning. The plan has proposed to carry out a wide-range inspection on key enterprises and key industries such as coal mines, non-coal mines, hazardous chemicals, industrial trade from the date onward to 31 March next year. The province would focus on the weak links in production safety, investigate and rectify the hidden risks, crack down on illegal acts that may endanger workplace safety, and resolutely prevent major accidents from happening.

From 24 Nov. to the end of Dec., Shanxi Province launched a province-wide campaign to investigate and rectify hidden dangers to production safety, aiming to identify and severely combat illegal and rule-breaking behaviours in production.





Import and Export

Imidacloprid TC export to India increases in Q3 2022

Summary: In Q3 2022, imidacloprid products from China were mainly exported to India, the US, Brazil, Argentina, etc. The export volume of imidacloprid TC to India nearly quadrupled YoY.

According to the import and export data updated on 2 Dec. from Tranalysis, in Q3 2022, imidacloprid products from China were mainly exported to India, the US, Brazil, Argentina, etc. The export volume to these major destinations totalled 2,889.34 tonnes (actual volume), or 2,266.95 tonnes (100% AI volume).

Details of China's imidacloprid exports in Q3 2022 are as follows:

- Specifications for export: 95% TC, 96% TC, 97% TC, 98% TC, 10% WP, 20% WP, 25% WP, 70% WP, 200g/L SL, 200g/L SC, 350g/L SC, 600g/L SC, 600g/L FS, 70% WG
- Average export price & export volume: 2,048.70 tonnes (actual volume), or 1,989.70 tonnes (100% AI volume), of TC products were exported at an average price of USD22.78/kg; 840.64 tonnes (actual volume), or 277.25 tonnes (100% AI volume), of formulation products were exported at an average price of USD9.37/kg.
- Major exporter: The top three exporters, Suzhou Bianjing Agro-Biochemical Co., Ltd. (Suzhou Bianjing), Hebei Bestar Commerce and Trade Co., Ltd. and Nufarm Chemical (Shanghai) Co., Ltd., together exported 1,015.93 tonnes (100% AI volume) of imidacloprid products, the amount making up 44.81% of the total exported to major destinations.

The export volume of China's imidacloprid TC to major destinations increased by 8.68% YoY in Q3 2022, and the TC export to India, the largest destination, rocketed to 1,047 tonnes, or 1,015.37 tonnes (100% AI volume), up 278.66% YoY. Suzhou Bianjing was the main exporter of China's imidacloprid TC to India in this period, with a volume of 490 tonnes (actual volume), or 474.98 tonnes (100% AI volume), making up 46.80% of the TC exports to India; its products exported were 96% TC, 97% TC and 98% TC.





TABLE 7: Exports of imidacloprid products from China, Q3 2022

Category	Specifications	Volume, kg	Average price, USD/kg
Technical	97% TC	1,423,130	22.34
	98% TC	475,737	24.11
	95% TC	79,530	24.06
	96% TC	70,300	21.19
	Subtotal	2,048,697	22.78
Formulation	70% WG	189,800	17.06
	200g/L SL	173,416	8.53
	350g/L SC	159,149	10.02
	10% WP	155,000	2.30
	25% WP	120,229	5.58
	600g/L SC	13,825	13.61
	70% WP	12,960	15.64
	20% WP	11,400	6.88
	600g/L FS	4,860	14.74
	200g/L SC	4	2.00
	Subtotal	840,643	9.37
Total	2,889,340	18.88	

Note: The data were updated by Tranalysis on 2 Nov., 2022.

Source: Tranalysis





TABLE 8: Export of imidacloprid TC to top 10 destinations in Q3 2022 & Q3 2021

No.	Q3 2022			Q3 2021		
	Destination	Volume, kg	Share	Destination	Volume, kg	Share
1	India	1,047,001	51.11%	Brazil	572,100	30.35%
2	The US	576,747	28.15%	The US	368,596	19.55%
3	Brazil	162,000	7.91%	India	276,500	14.67%
4	Argentina	159,900	7.80%	Argentina	168,590	8.94%
5	Mexico	20,000	0.98%	Mexico	121,400	6.44%
6	Vietnam	15,800	0.77%	Paraguay	117,700	6.24%
7	Turkey	15,000	0.73%	Israel	80,000	4.24%
8	Paraguay	14,000	0.68%	Turkey	46,600	2.47%
9	Peru	12,850	0.63%	Chile	27,500	1.46%
10	Australia	12,599	0.61%	Colombia	26,500	1.41%

Note: The data were updated by Tranalysis on 2 Nov., 2022.

Source: Tranalysis





TABLE 9: Export of imidacloprid formulations to top 10 destinations in Q3 2022 & Q3 2021

No.	Q3 2022			Q3 2021		
	Destination	Volume, kg	Share	Destination	Volume, kg	Share
1	Vietnam	156,004	18.56%	Brazil	646,331	44.05%
2	Brazil	130,960	15.58%	Pakistan	139,000	9.47%
3	Pakistan	124,540	14.81%	Bangladesh	105,405	7.18%
4	Bangladesh	86,479	10.29%	Peru	79,099	5.39%
5	Peru	70,300	8.36%	Vietnam	79,000	5.38%
6	Nigeria	68,747	8.18%	Cameroon	72,388	4.93%
7	Thailand	43,000	5.12%	Indonesia	64,386	4.39%
8	Colombia	39,693	4.72%	Argentina	40,069	2.73%
9	Mexico	27,713	3.30%	Paraguay	33,120	2.26%
10	Poland	27,710	3.30%	Colombia	28,093	1.91%

Note: The data were updated by Tranalysis on 2 Nov., 2022.

Source: Tranalysis





Registration

Corteva stops renewing chlorpyrifos registration in China

Summary: Corteva now has only four chlorpyrifos products left with valid registration in China, after the halt of registration renewal of expired chlorpyrifos products. As of 7 Dec., China had 1,123 chlorpyrifos products with valid registration, of which 68 were TC products and 1,055 were formulation products.

Registration certificates of Corteva Agriscience (Corteva)'s two chlorpyrifos products—chlorpyrifos 480g/L EC and sulfoxaflor-chlorpyrifos 37% SE, expired in China on 22 April and 17 Oct. this year respectively; the company did not renew them and the products will gradually withdraw from the Chinese market. According to the Institute for the Control of Agrochemicals, Ministry of Agriculture and Rural Affairs (ICAMA), as of 7 Dec., Corteva held just four chlorpyrifos pesticide registration certificates, one for a TC product and three for formulation products.

In recent years, some countries and regions have restricted or prohibited the use of chlorpyrifos. For instance, the EU has decided not to proceed with chlorpyrifos registration renewal, Canada and Australia have cancelled chlorpyrifos registrations for household and home garden application, the US will completely prohibit all food-related uses of chlorpyrifos, and India, Thailand, Myanmar and Malaysia have proposed to ban chlorpyrifos. China has banned the use of chlorpyrifos on vegetable crops since 31 Dec., 2016. As of 7 Dec., 2022, there were 1,123 valid registrations for chlorpyrifos products in China, of which 68 were for TC products and 1,055 for formulations (of the formulation products, 1,033 are for agricultural use, 21 for hygienic insecticidal use and one for export).

Corteva also had the registrations for 96% chlorpyrifos-methyl TC and chlorpyrifos-methyl 400g/L EC expired without renewal in Sept. this year, which brings the company's amount of chlorpyrifos-methyl product registration to zero in China. Currently, there are only three chlorpyrifos-methyl products (two TC and one formulation) with valid registration in China, which leaves cotton the only applicable crop registered.

TABLE 10: Corteva's valid registration of chlorpyrifos products in China, as of 7 Dec., 2022

No.	Active ingredient	Form	Total content	Expiry date	Crop & control target
1	Cypermethrin-chlorpyrifos	EC	522.5g/L	2025/3/24	Citrus trees (citrus leaf moth), apple trees (fruit moth), lychee trees (<i>Conopomorpha sinensis</i>), soybean (aphid), peach tree (peach scale insects), cotton (cotton bollworm), longan (<i>Conopomorpha sinensis</i>), pear trees (pear psylla)
2	Chlorpyrifos	GR	15%	2025/1/14	Peanut (underground insects)
3	Chlorpyrifos	EW	40%	2024/12/16	Rice (rice leaf roller), citrus trees (scale insects), apple trees (woolly apple aphid)
4	Chlorpyrifos	TC	97%	2024/3/31	/





Source:ICAMA

TABLE 11: Registration of chlorpyrifos-methyl products in China, as of 7 Dec., 2022

No.	Registrant	Product	Expiry date
1	Jiangsu Lanfeng Bio-chemical Co., Ltd.	95% Chlorpyrifos-methyl TC	2028/1/4
2	Jiangsu Xinnong Chemical Co., Ltd.	96.5% Chlorpyrifos-methyl TC	2023/5/16
3	Jiangsu Lanfeng Bio-chemical Co., Ltd.	Chlorpyrifos-methyl 40% EC	2025/1/14

Source:ICAMA



News in Brief

Zhongnong Ruihua to build capacity for acetamiprid TC and other products

Early Dec., the environmental impact report of Zhongnong Ruihua (Gansu) Pharmaceutical Co., Ltd. (Zhongnong Ruihua)'s pesticide & pharmaceutical intermediates, pesticide technical and formulations project (Phase I) was approved by local government. This project will be located in Yumendong Building Materials Chemical Industrial Park, Yumen City, Jiuquan City, Gansu Province. The Phase I program will build capacity of 2,000 t/a acetamiprid TC, 4,000 t/a clethodim TC, 8,000 t/a acrylaldehyde, 3,000 t/a of 2-chloro-5-chloromethylpyridine (CCMP), and 10,000 t/a pesticide formulation products. Among them, CCMP is a key intermediate for the production of acetamiprid and imidacloprid.

Shanghai Pilar acquires patent for the core technology applied in Pilarcore insecticide series

On 9 Dec., Pilar (Shanghai) Co., Ltd. (Shanghai Pilar) acquired a new invention patent—a pesticide composite with reduced irritation and its application—from the State Intellectual Property Office of China. The patent number is ZL202210602610.3.

The invention involves a highly effective insecticide from the company's Pilarcore series: a lambda-cyhalothrin·clothianidin ZC product (Delika®), which is mainly applied to prevent and control fruit flies, underground pests, field pests like wheat aphids, wheat blossom midge, corn leaf aphids, *Mythimna separata*, fall armyworms, citrus-attacking flower thrips and woodlice, Sichuan pepper-attacking aphids and thrips, vegetables-attacking *Trialeurodes vaporariorum* and thrips, etc. The new Delika® product can reduce skin irritation it causes on people. This itch reduction technology helps address a major application pain point.

Liaoning Youchuang proposes 15.65kt/a pesticide TC & 7kt/a pesticide intermediate project

On 2 Dec., some basic information on Liaoning Youchuang Crop Protection Co., Ltd. (Liaoning Youchuang)'s 15,650 t/a pesticide TC and 7,000 t/a pesticide intermediate project was released to the public by local authorities. The company, established in June 2022, is a wholly-owned subsidiary of Jiangsu Yangnong Chemical Co., Ltd. It plans to invest USD591.59 million (RMB4,213.61 million) in this project, which will be built in the Chemical Industrial Park of Huludao Economic Development Zone, Huludao City, Liaoning Province.

A total of 11 production lines are planned to be built for the following products:

- Insecticides: 3,000 t/a Cyhalothrin, 1,500 t/a diamide insecticides;
- Herbicides: 5,000 t/a Clethodim, 1,500 t/a imazethapyr, 500 t/a anilofos, 500 t/a diflufenican, 250 t/a sethoxydim, 200 t/a imazamox, 100 t/a imazapic;
- Other pesticides: 2,500 t/a Pydiflumetofen, 500 t/a paclobutrazol, 100 t/a pyrisoxazole;
- Pesticide intermediates: 3,000 t/a Triazoles, 2,000 t/a chloropyridines, 2,000 t/a cyclohexanediones.

Shaanxi Meibang's subsidiary to build capacity for multiple insecticides TC

In Dec., CCM learned that Shaanxi Nuozheng Biotechnology Co., Ltd. (Shaanxi Nuozheng) had made some changes to its 20,000 t/a pesticide TC and intermediate project. Environmental impact report of the project (after major changes) was recently approved by the Weinan Ecological Environment Bureau of Shaanxi Province. The company has planned to invest some USD194 million (RMB1,382 million) to construct the project in the Weibei Coal Chemical Industrial Park in Weinan City. Shaanxi Nuozheng is a subsidiary of Shaanxi





Meibang Pharmaceutical Group Co., Ltd.

The project will be carried out in two phases, and after the changes, pesticide products covered are as the following:

- Phase I: Total capacity of 7,600 t/a pesticides TC will be built, including 2,000 t/a chlorantraniliprole TC, 2,000 t/a pyraclostrobin TC, 2,000 t/a oxine-copper TC, 1,000 t/a chlorfenapyr TC, and 600 t/a multi-functional workshop for a basket of pesticide products such as eucalyptol TC, tebufenpyrad TC, isopyrazam TC and cyflumetofen TC.
- Phase II: Total capacity of 12,400 t/a pesticides TC, including insecticides—1,500 t/a cyclaniliprole TC, 1,000 t/a chlorfenapyr TC, 1,000 t/a pymetrozine TC, 1,000 t/a cyantraniliprole TC, 1,000 t/a tebufenpyrad TC, 700 t/a pyrifluquinazon TC, 500 t/a cyflumetofen TC, 500 t/a flonicamid TC, 200 t/a spinosad TC, and other pesticides—2,000 t/a difenoconazole TC, 1,000 t/a bixafen TC, 500 t/a fluopicolide TC, 500 t/a fluxapyroxad TC, 500 t/a benalaxyl-M TC and 500 t/a kasugamycin TC.

Jiangsu Youjia actively engages in cracking down on counterfeit chlorfluazuron TC

On 12 Dec., Jiangsu Youjia Crop Protection Co., Ltd. (Jiangsu Youjia) announced that it would take an active part in the crackdown on counterfeit chlorfluazuron TC. The company has been aware of existence of underground illegitimate chlorfluazuron TC production and sale practices in China, which pose serious safety and compliance risks to chlorfluazuron formulation producers and downstream business operators. The very acts—producing and selling chlorfluazuron TC products—by enterprises that have not obtained both production licence and pesticide registration certificate for the concerned products, are suspected of constituting illegal acts. In order to better cooperate with law-enforcing departments to crack down on the illegal production and sale of chlorfluazuron TC, Jiangsu Youjia has started from the day on to offer rewards for valuable clues to such violations.

EI report of Shandong Hansen's 9kt/a pesticide TC project (Phase I) approved

On 8 Dec., the environmental impact (EI) report of Shandong Binhai Hansen Biologic Science Co., Ltd. (Shandong Hansen)'s 9,000 t/a pesticide TC project (Phase I) was approved by local authorities. The company intends to invest USD9.83 million (RMB70 million) in the Phase I program, which will be built in its factory located in Weifang Binhai Chemical Industrial Park, Weifang Binhai Economic and Technological Development Zone, Shandong Province.

The Phase I involves transforming existing production lines to 6,000 t/a trifluralin TC and 2,000 t/a fomesafen TC lines. It reveals at the same time that the Phase II will build new capacity of 500 t/a lufenuron TC and 500 t/a cyazofamid TC. Among the products planned, lufenuron is a benzoylphenylurea insecticide/acaricide, mainly used for the control of cabbage moth, beet armyworm, tomato fruitworm, *Spodoptera litura*, diamondback moth, etc.

EI report of Hebei Saifeng's relocation project (Phase I) accepted

On 15 Dec. the environmental impact (EI) report of Hebei Saifeng Biotechnology Co., Ltd. (Hebei Saifeng)'s intermediate, pesticide technical and formulation relocation project (Phase I) was accepted by local authorities. The company intends to invest USD42.16 million (RMB300.27 million) in this project, which will be built in Lingang Economic and Technological Development Zone, Bohai New District, Cangzhou City, Hebei Province.

The Phase I will build the capacity of 3,000 t/a bifenthrin TC, 2,000 t/a cyhalothrin TC, 1,000 t/a etoxazole TC, 3,000 t/a lambda-





cyhalothric acid and 10,000 t/a pesticide formulations. It reveals at the same time that Phase II will build capacity of 1,000 t/a cyhalothrin TC, 1,000 t/a tebufenozide TC and 2,000 t/a difenoconazole TC.

Hebei Saifeng was established on 27 Aug., 2013. It acquired 19 pesticide production licences for 17 formulations and 2 TC products from Cangzhou Tianhe Pesticide Factory in Nov. 2015.

Anhui Guangxin expects to bring into production buprofezin TC line by the end of 2022, indoxacarb TC line in H1 2023

On 14 Dec., Anhui Guangxin Agrochemical Co., Ltd. (Anhui Guangxin) revealed via an investor interactive platform that the company had been orderly pushing ahead with the 40,000 t/a 4-aminophenol project. 4-Aminophenol is a main raw material for acetaminophen and an important organic fine chemical intermediate.

It is reported that Anhui Guangxin's 1,000 t/a indoxacarb TC line will be built up by the end of 2022, and the company expects to bring it into production in H1 2023. Besides, its 5,000 t/a buprofezin TC line and 1,500 t/a oxadiazon TC line are expected to come into production by the end of 2022. The construction of its 2,000 t/a azoxystrobin TC and 2,000 t/a hexazinone TC capacity is still underway.

EI report of Shaanxi Gelida relocation and transformation project publicised

In Dec., CCM learned that the environmental impact (EI) report of Shaanxi Gelida Biotechnology Co., Ltd. (Shaanxi Gelida)'s relocation and transformation project for biopesticide products had been publicised. Shaanxi Gelida intends to build 1,320 t/a capacity for biopesticides TC, 480 t/a for pesticides TC and 1,000 t/a for biopesticide formulation. This relocation and transformation project will be built in the Economic and Technological Development Zone, Dali County, Weinan City, Shaanxi Province.

Products and their capacity planned are as follows: 200 t/a spinosad TC, 20 t/a acetamiprid TC, 400 t/a propamocarb hydrochloride TC, 300 t/a kasugamycin TC, 200 t/a polyoxin TC, 100 t/a ningnanmycin TC, 20 t/a cymoxanil TC, 20 t/a carboxin TC, 20 t/a pyraclostrobin TC, 300 t/a bacillus methylotro-philicus TK, 200 t/a zhongshengmycin TK, 20 t/a (+)-abscisic acid TC and 1,000 t/a kasugamycin 6% AS.

Weifang Maoyuan plans to expand lambda-cyhalothric acid capacity

On 8 Dec., the environmental impact (EI) report of Weifang Maoyuan Biotechnology Co., Ltd. (Weifang Maoyuan)'s lambda-cyhalothric acid capacity expansion project was accepted by local authorities. The Phase I will build the capacity of 8,311 t/a 1,1,1-trichlorotrifluoroethane (CFC-113a), a raw material of lambda-cyhalothric acid; the Phase II will expand the capacity of lambda-cyhalothric acid from 2,000 t/a to 10,000 t/a.

Since the five high-toxicity pesticides, methamidophos, parathion, parathion-methyl, monocrotophos and phosphamidon, were banned in China, huge gap in the market has been left to be filled. Substitutes are needed to prevent and control striped rice borer, yellow rice borer, rice leaf roller, etc. in particular. Pyrethroid insecticides are appropriate substitutes to high-toxicity pesticides, and demand for them has been growing in China. Accordingly, there comes great demand for the upstream intermediate lambda-cyhalothric acid.





Price Update

Ex-works prices of major insecticides in China on 8 Dec. 2022

TABLE 12: Ex-works prices of major insecticides in China, 8 Dec., 2022

Product	20221108		20221208	
	Original Price (RMB/t)	Price (USD/t)	Original Price (RMB/t)	Price (USD/t)
95% Abamectin technical	554,000	76,858	541,000	75,956.48
97% Acephate technical	58,000	8,047	55,000	7,722.01
95% Acetamiprid technical	139,600	19,367	130,000	18,252.02
95% Azocyclotin technical	185,000	25,666	182,000	25,552.83
95% Beta-Cypermethrin technical	165,000	22,891	156,000	21,902.42
97% Bifenthrin technical	265,000	36,764	255,000	35,802.04
95% Buprofezin technical	75,000	10,405	75,000	10,530.01
98% Carbofuran technical	115,000	15,954	115,000	16,146.02
98% Chlorfenapyr technical	242,300	33,615	215,000	30,186.03
95% Chlorfluazuron technical	475,000	65,898	440,000	61,776.06
95% Chlorpyrifos technical	50,400	6,992	48,100	6,753.25
94% Cypermethrin technical	83,500	11,584	81,500	11,442.61
99% Cyromazine technical	160,000	22,197	160,000	22,464.02
98% Deltamethrin technical	540,000	74,916	530,000	74,412.07
95% Diafenthiuron technical	140,000	19,423	138,000	19,375.22
98% Dimethoate technical	47,600	6,604	47,600	6,683.05
70% Emamectin benzoate technical	530,000	73,528	516,000	72,446.47
92% Fenvalerate technical	135,000	18,729	135,000	18,954.02
95% Fipronil technical	565,000	78,384	538,100	75,549.32
98% Hexaflumuron technical	510,000	70,754	500,000	70,200.07





97% Imidacloprid technical	149,900	20,796	135,000	18,954.02
98% Isoprocarb technical	45,500	6,312	45,500	6,388.21
95% Lambda-cyhalothrin technical	195,000	27,053	185,000	25,974.03
90% Malathion technical	36,000	4,994	36,000	5,054.41
95% Methidathion technical	90,000	12,486	90,000	12,636.01
Methomyl 90% SP	74,000	10,266	74,000	10,389.61
98% Methomyl technical	80,000	11,099	80,000	11,232.01
75% Omethoate technical	51,400	7,131	51,400	7,216.57
90% Phoxim technical	45,000	6,243	45,000	6,318.01
90% Profenofos technical	82,665	11,468	82,665	11,606.18
90% Propargite technical	60,000	8,324	60,000	8,424.01
95% Pymetrozine technical	137,500	19,076	130,000	18,252.02
95% Pyridaben technical	104,000	14,428	105,000	14,742.01
97% Spirodiclofen technical	160,000	22,197	160,000	22,464.02
85% Triazophos technical	59,000	8,185	59,000	8,283.61

Note: Ex-works price includes VAT.

Source: CCM

Shanghai Port prices of major insecticides in China, 8 Dec. 2022



TABLE 13: Shanghai Port prices of major insecticides in China, 8 Dec., 2022

Product	20221108		20221208	
	Original Price (RMB/t)	Price (USD/t)	Original Price (RMB/t)	Price (USD/t)
95% Abamectin technical	554,500	76,927	541,500	76,026.68
97% Acephate technical	58,500	8,116	55,500	7,792.21
95% Acetamiprid technical	140,100	19,436	130,500	18,322.22
95% Azocyclotin technical	185,500	25,735	182,500	25,623.03
95% Beta-Cypermethrin technical	165,500	22,960	156,500	21,972.62
97% Bifenthrin technical	265,500	36,834	255,500	35,872.24
95% Buprofezin technical	75,500	10,474	75,500	10,600.21
98% Carbofuran technical	115,500	16,024	115,500	16,216.22
98% Chlorfenapyr technical	242,800	33,684	215,500	30,256.23
95% Chlorfluazuron technical	475,500	65,967	440,500	61,846.26
95% Chlorpyrifos technical	50,900	7,062	48,600	6,823.45
94% Cypermethrin technical	84,000	11,654	82,000	11,512.81
99% Cyromazine technical	160,500	22,267	160,500	22,534.22
98% Deltamethrin technical	540,500	74,985	530,500	74,482.27
95% Diafenthiuron technical	140,500	19,492	138,500	19,445.42
98% Dimethoate technical	48,100	6,673	48,100	6,753.25
70% Emamectin benzoate technical	530,500	73,598	516,500	72,516.67
92% Fenvalerate technical	135,500	18,798	135,500	19,024.22
95% Fipronil technical	565,500	78,453	538,600	75,619.52
98% Hexaflumuron technical	510,500	70,823	500,500	70,270.27
97% Imidacloprid technical	150,400	20,865	135,500	19,024.22
98% Isoprocarb technical	46,000	6,382	46,000	6,458.41



95% Lambda-cyhalothrin technical	195,500	27,122	185,500	26,044.23
90% Malathion technical	36,500	5,064	36,500	5,124.61
95% Methidathion technical	90,500	12,555	90,500	12,706.21
Methomyl 90% SP	74,500	10,336	74,500	10,459.81
98% Methomyl technical	80,500	11,168	80,500	11,302.21
75% Omethoate technical	51,900	7,200	51,900	7,286.77
90% Phoxim technical	45,500	6,312	45,500	6,388.21
90% Profenofos technical	83,165	11,538	83,165	11,676.38
90% Propargite technical	60,500	8,393	60,500	8,494.21
95% Pymetrozine technical	138,000	19,145	130,500	18,322.22
95% Pyridaben technical	104,500	14,498	105,500	14,812.21
97% Spirodiclofen technical	160,500	22,267	160,500	22,534.22
85% Triazophos technical	59,500	8,255	59,500	8,353.81

Note: Shanghai port price = ex-works price + transportation fee from warehouse to Shanghai port, and the ex-works price includes VAT.

Source: CCM

FOB Shanghai prices of major insecticides in China, 8 Dec. 2022



TABLE 14: FOB Shanghai prices of major insecticides in China, 8 Dec., 2022, USD/t

Product	20221108	20221208
95% Abamectin technical	74,890	74,014.75
97% Acephate technical	7,695	7,392.48
95% Acetamiprid technical	18,981	17,898.49
95% Azocyclotin technical	25,106	24,998.36
95% Beta-Cypermethrin technical	21,620	20,694.46
97% Bifenthrin technical	34,634	33,733.03
95% Buprofezin technical	10,266	10,389.02
98% Carbofuran technical	15,662	15,850.45
98% Chlorfenapyr technical	32,837	29,504.05
95% Chlorfluazuron technical	64,231	60,224.63
95% Chlorpyrifos technical	6,947	6,716.2
94% Cypermethrin technical	11,014	10,882.6
99% Cyromazine technical	20,969	21,221.27
98% Deltamethrin technical	70,422	69,951.3
95% Diafenthiuron technical	18,366	18,323.81
98% Dimethoate technical	6,342	6,417.88
70% Emamectin benzoate technical	71,652	70,601.36
92% Fenvalerate technical	17,716	17,928.7
95% Fipronil technical	76,374	73,618.8
98% Hexaflumuron technical	68,953	68,416.78
97% Imidacloprid technical	20,371	18,581.17
98% Isoprocarb technical	6,068	6,141.3
95% Lambda-cyhalothrin technical	25,524	24,513.84



90% Malathion technical	4,832	4,890.12
95% Methidathion technical	12,289	12,437.06
Methomyl 90% SP	10,131	10,252.48
98% Methomyl technical	11,912	12,054.76
75% Omethoate technical	6,836	6,918.35
90% Phoxim technical	6,179	6,253.25
90% Profenofos technical	10,905	11,036.04
90% Propargite technical	8,242	8,340.98
95% Pymetrozine technical	18,041	17,270.19
95% Pyridaben technical	14,178	14,485.1
97% Spirodiclofen technical	20,969	21,221.27
85% Triazophos technical	8,107	8,204.44

Note: FOB Shanghai price considers factors of Shanghai port price, port sur-charges, loading charges, traders' profits and export tax refund. And the shipment cost shall be paid by the buyer. This FOB price is the average of quotations offered by enterprises and it may be lower than the one reported in customs data which is the actual purchase price.

Source: CCM



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