

Insecticides China Monthly Report 202204

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Headline

On 7 April 2022, Jiangsu Fengshan reported an over 50% YoY decrease in net profit attributable to equity holders of the listed company in 2021. Plummeting net profit was the result of increasing cost of sales due to the Dual Control policy on energy consumption and energy intensity, as well as jumping raw material price. The company plans to cut down chlorpyrifos output, seeing fierce competition and smaller profit margin.

On 19 April, Jiangsu Changqing released its 2021 annual report. The company saw over 25% YoY increases in total revenue and net profit. Insecticide products contributed 44.97% to the total revenue, dwarfing other pesticide categories.

Ningxia Sanfeng plans to build 3,000 t/a acephate TC production lines, thus forming an advantage in acephate production via holding production capacity across the industrial chain—from upstream raw material ammonium O,O-dimethyl dithiophosphate to O,O-dimethyl phosphoramidothioate and then to acephate TC.

In late March, Jiangsu Yangnong released its 2021 annual report, its total revenue breaking the RMB10 billion-threshold for the first time. Besides, its net profit in Q1 2022 doubled compared with that in Q1 2020. Boasting strong R&D strength, Jiangsu Yangnong is active in developing new pesticide products with a broad spectrum, high efficiency and low toxicity, following the principle of "usage reduction and efficacy enhancement".

In April, ex-works prices of most insecticide TC products in China were set lower due to uncertain macro environment at home and weak market demand. Prices of most organophosphorus insecticides TC went down slightly. Most pyrethroid insecticides TC saw lowered prices; some products had larger supply as manufacturers resumed production. Prices of some nicotinoid insecticides TC dropped, which was mainly the result of slow sales.

In April, a video conference on major wheat diseases and pests in mid and late growing period & the occurrence forecast of fall armyworm in 2022 was held by the NATESC. It is expected that fall armyworm occurs moderately on 0.67 million ha (10 million mu) in this spring and fall armyworm will vigorously migrate north from late April.

In late March, 2022, the ICAMA released a list of newly-registered pesticides, on which five insecticide products were listed.

On 7 April, MIIT and other five departments jointly released the Opinions on Promoting High-Quality Development of Petrochemical and Chemical Industries in the 14th Five-Year Period (2021–2025). The Opinions specifies major development targets for petrochemical and chemical industries, calling for adjustment to industrial structure and green & low-carbon development. Notably, it requires the above-scale petrochemical and chemical enterprises' R&D expenditure should account for at least 1.5% of their total revenue by 2025.

On 11 April, Shandong Provincial Department of Agriculture and Rural Affairs released the Opinions on Continuously Promoting Usage Reduction on and Efficacy Enhancement of Fertilisers and Pesticides (the Opinions). It requires a better use of the pests & diseases monitoring and early warning networks within the province and establishment of a system for recycling and treating pesticide packaging wastes. By 2023, pesticide consumption in the province should be reduced by 6% compared with that in 2020.

In 2021, China exported 3,891.75 tonnes (actual volume) of chlorpyrifos products to Brazil, down 20.91% from and 1,028.86 tonnes less than that in 2020. The amount to Brazil accounted for 23.31% (based on actual volume) of China's total chlorpyrifos export to major destinations, down 1.05 percentage points from the country's share in 2020.







Editor's Note

As for company dynamics, prices of upstream raw materials and logistics costs rose sharply in H2 2021, leading to much varied price trends in pesticide products. Some domestic pesticide enterprises reported positive growth, but some others suffered losses. Jiangsu Changqing saw over 25% YoY increases in total revenue and net profit in 2021. Insecticide products contributed 44.97% to the total revenue, dwarfing other pesticide categories. In contrast, Jiangsu Fengshan reported an over 50% YoY decrease in net profit attributable to equity holders of the listed company in 2021. Plummeting net profit was the result of increasing cost of sales due to the Dual Control policy on energy consumption and energy intensity, as well as jumping raw material price.

As for market analysis, in April, ex-works prices of most insecticide TC products in China were set lower due to uncertain macro environment at home and weak market demand. Prices of most organophosphorus insecticides TC went down slightly. Most pyrethroid insecticides TC saw lowered prices. Prices of some nicotinoid insecticides TC dropped mainly due to slow sales.

As to latest policy, on 7 April, MIIT and other five departments jointly released the *Opinions on Promoting High-Quality Development of Petrochemical and Chemical Industries in the 14th Five-Year Period (2021–2025)*. It specifies major development targets for petrochemical and chemical industries, calling for adjustment to industrial structure and green & low-carbon development. On 11 April, Shandong Provincial Department of Agriculture and Rural Affairs released the *Opinions on Continuously Promoting Usage Reduction on and Efficacy Enhancement of Fertilisers and Pesticides*. It requires a better use of the pests & diseases monitoring and early warning networks within the province and establishment of a system for recycling and treating pesticide packaging wastes.

In terms of pesticide registration, in late March, 2022, the ICAMA released a list of newly-registered pesticides, of which five were insecticide products.

The USD/CNY exchange rate in this newsletter is USD1.00 = CNY6.3509 on 1 April 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

Jiangsu Fengshan plans to cut down chlorpyrifos output

Summary: On 7 April 2022, Jiangsu Fengshan reported an over 50% YoY decrease in net profit attributable to equity holders of the listed company in 2021. Plummeting net profit was the result of increasing cost of sales due to the Dual Control policy on energy consumption and energy intensity, as well as jumping raw material price. The company plans to cut down chlorpyrifos output, seeing fierce competition and smaller profit margin.

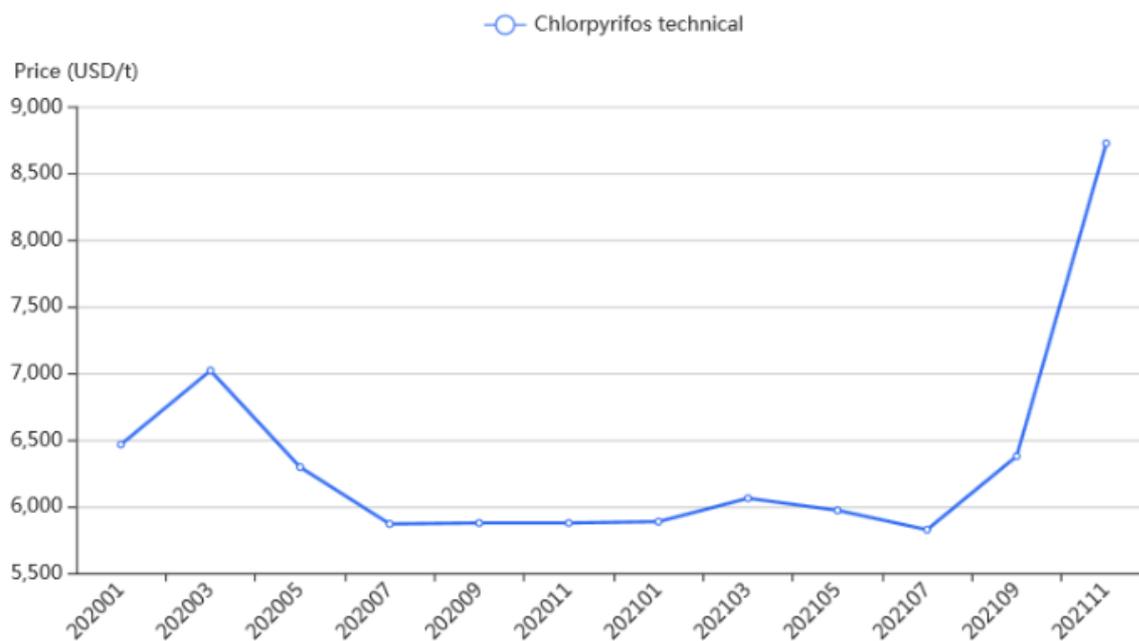
On 7 April 2022, Jiangsu Fengshan Group Co., Ltd. (Jiangsu Fengshan) disclosed its annual report for 2021. During the reporting period, the company's total revenue stood at USD239.04 million (RMB1,518.11 million), a YoY increase of 1.61%, but its net profit attributable to equity holders of the listed company was USD18.06 million (RMB14.73 million), dropping by 51.32% YoY. Besides, its net profit attributable to equity holders excluding extraordinary profit and loss stood at USD15.69 million (RMB99.62 million), dropping by 54.57% YoY. The company arranged production based on supply of raw materials, market information and policy requirements so that output, sales volume and inventory of the company's products did not fluctuate greatly in 2021.

Jiangsu Fengshan mainly engages in R&D, production and sale of fine chemical intermediates and high efficiency, low toxicity pesticide technical & formulation products that have low residue. Its four flagship product series are those based on chlorpyrifos, trifluralin, quizalofop-P-ethyl and nicosulfuron. In 2021, the company had a 1.74% YoY increase in revenue from pesticides, but cost of sales in this business saw a much bigger YoY increase of 17.12%, so its gross profit margin dropped by 10.51 percentage points. Main reasons for the decline in profit margin are that average prices of chlorpyrifos and trifluralin products fell from the high level in 2020 and raw material prices went higher in 2021.

As a major domestic manufacturer, Jiangsu Fengshan has 11,000 t/a capacity for chlorpyrifos products. As of 8 April 2022, the company has obtained 7 registration certificates of chlorpyrifos related products. In H1 2021, average price of chlorpyrifos technical kept at low level. Yet in Q4, the price rose quickly amid increasing raw material price and insufficient supply caused by the Dual Control policy. Intense competition and shrinking profit margin have led the company to a decision to cut down production of chlorpyrifos and switch to production of the intermediate sodium 3,5,6-trichloropyridin-2-olate product (also an intermediate for triclopyr and triclopyr-butotyl technical).



FIGURE 1: Ex-works price of chlorpyrifos technical in China, 2020–2021



Source: CCM

Jiangsu Changqing sees growths in both revenue and profit in 2021

Summary: On 19 April, Jiangsu Changqing released its 2021 annual report. The company saw over 25% YoY increases in total revenue and net profit. Insecticide products contributed 44.97% to the total revenue, dwarfing other pesticide categories.

Prices of upstream raw materials and logistics costs rose sharply in H2 2021, leading to much varied price trends in pesticide products. Some domestic pesticide enterprises reported positive growth, but some others suffered losses. According to Jiangsu Changqing Agrochemical Co., Ltd. (Jiangsu Changqing)'s 2021 annual report released on 19 April, its total revenue jumped by 25.15% YoY to USD592.78 million (RMB3,764.72 million) and the net profit attributable to equity holders of the listed company came to USD39.13 million (RMB248.53 million), up 27.48% YoY. Its revenue mainly comes from the pesticide business, which stood at USD579.96 million (RMB3,683.28 million), 97.84% of the total.

Notably, insecticide business was still the largest contributor and had a strong performance in 2021, the revenue from this sector accounting for 44.97% of the total. The gross profit margin of insecticides was 22.76% in 2021, enjoying a YoY increase of 0.54 percentage points; the margin was higher than that of other pesticide categories. Nevertheless, its overall gross profit margin of pesticide products in 2021 was 16.51%, dropping by 0.86 percentage points YoY.

Jiangsu Changqing engages in R&D, production and sales of pesticide technical & formulation products. It mainly produces some 30 technical products, covering insecticides, herbicides and fungicides; main insecticide products include imidacloprid, diafenthiuron, fipronil and thiamethoxam. In particular, Jiangsu Changqing is one of the major imidacloprid TC suppliers in China, with an annual output of 3,000 tonnes. About 50% of this product is for export. Imidacloprid is one of the first-batch 15 substitutes for highly toxic organophosphorus pesticides recommended by the Ministry of Agriculture and Rural Affairs of the People's Republic of China and its market demand has



been growing steadily in recent years. The company also produces some key intermediates of imidacloprid, which helps bring down production cost. As to other insecticides, as of April, production lines of 2,000 t/a cyhalothrin TC have been put into mass production; the lines of 600 t/a fipronil TC have come into trial production. And devices of 3,000 t/a thiamethoxam TC production lines are being installed.

The company will accelerate the construction of projects in its production base in Hubei Province, including 3,500 t/a glufosinate-ammonium TC project and 1,000 t/a bifenthrin TC project, according to its business plan for the year 2022. More efforts will be put to complete them as early as possible to generate more profits and lay a foundation for R&D work for follow-up projects. Moreover, to cultivate new growth point, it plans to strengthen R&D on chlorantraniliprole, to better cope with the market trend favouring low-toxicity, low-residue and high-efficacy new pesticides.

As of 20 April, 2022, Jiangsu Changqing obtained 10 registration certificates for insecticide products.

TABLE 1: Insecticide registrations of Jiangsu Changqing, as of 20 April, 2022

No.	Active ingredient	Formulation	Total content	Expiry date
1	Lufenuron	TC	98%	2027/3/8
2	Diafenthiuron	TC	95%	2026/7/1
3	Triazophos	TC	85%	2026/6/8
4	Pymetrozine	TC	97%	2025/9/23
5	Fipronil	TC	95%	2025/5/4
6	Thiamethoxam	TC	98%	2023/12/20
7	Lambda-cyhalothrin	TC	95%	2023/12/11
8	Chlorpyrifos	TC	97%	2023/11/25
9	Imidacloprid	TC	95%	2023/1/3
10	Indoxacarb	TK	71.25%	2023/10/22

Source: ICAMA

Ningxia Sanfeng to build capacity for acephate TC

Summary: Ningxia Sanfeng plans to build 3,000 t/a acephate TC production lines, thus forming an advantage in acephate production via holding production capacity across the industrial chain—from upstream raw material ammonium O,O-dimethyl dithiophosphate to O,O-dimethyl phosphoramidothioate and then to acephate TC.

On 21 April, 2022, Ningxia Sanfeng Chemical Co., Ltd. (Ningxia Sanfeng) disclosed more details about the Phase II of its 64,800 t/a fine





chemicals & intermediates project, as the Phase I program had been put into normal operation. The whole project is settled at its factory in Pingluo Fine Chemical Industrial Zone, Ningxia Hui Autonomous Region.

Product plan of the 64,800 t/a fine chemicals & intermediates project

- Phase I: 16,000 t/a thiophosphoryl chloride, 4,000 t/a ammonium O,O-dimethyl dithiophosphate, 4,000 t/a methyl [(dimethoxyphosphinothioyl)thio]acetate, 3,000 t/a dimethoate TC, 2,000 t/a dimethyl chlorothiophosphate, 1,500 t/a O,O-dimethyl phosphoramidothioate and 500 t/a tolclofos-methyl TC
- Phase II: 11,000 t/a dimethyl chlorothiophosphate, 10,000 t/a O,O-diethyl chlorothiophosphate, 8,500 t/a O,O-dimethyl phosphoramidothioate, 3,000 t/a acephate TC, 1,000 t/a phoxim TC and 300 t/a anilofos TC

Notably, products planned and production technologies adopted in the 64,800 t/a project are closely related, with strong upstream-downstream links. Ningxia Sanfeng produces dimethyl chlorothiophosphate from the raw material thiophosphoryl chloride, and then continues to produce tolclofos-methyl TC and O,O-dimethyl phosphoramidothioate. At the same time, it starts from ammonium O,O-dimethyl dithiophosphate to produce methyl [(dimethoxyphosphinothioyl)thio]acetate or O,O-dimethyl phosphoramidothioate, and from there it can go further to produce dimethoate TC or acephate TC. It can be seen that, once the Phase II completed, Ningxia Sanfeng will build a greater advantage, extending its presence down the industrial chain.

In addition to Ningxia Sanfeng's to-be-built 3,000 t/a acephate TC, the market of this technical product in China just welcomed ADAMA Ltd. (ADAMA)'s 30,000 t/a acephate TC recently, plus 50,000 t/a O,O-dimethyl phosphoramidothioate production lines. ADAMA threw the lines into trial production in Nov. 2021 in its base in Jingjiang Green Recycling Industrial Park in Jingzhou City, Hubei Province.

Ningxia Sanfeng is a subsidiary of Lianyungang Dongjin Chemical Co., Ltd. (Lianyungang Dongjin). Lianyungang Dongjin closed its factory and withdrew from a chemical park in Guanyun County, Lianyungang City; the park was trapped in an environmental pollution scandal, which was exposed to the public in April 2018, and was ordered to suspension later. Accordingly, Lianyungang Dongjin accelerated the development of Ningxia Sanfeng; it not only pushed forward with new pesticide projects in Ningxia Sanfeng, but also transferred and integrated relevant intangible assets to the subsidiary, including pesticide registration certificate resources. With changes to holder of pesticide registration certificates, Lianyungang Dongjin transferred all the 14 pesticide registration certificates to Ningxia Sanfeng. Among them, five are registrations for pesticide TC products, which are exactly the same TC products proposed in the 64,800 t/a fine chemical products & intermediates project.

Jiangsu Yangnong sees revenue growths in 2021 & Q1 2022

Summary: In late March, Jiangsu Yangnong released its 2021 annual report, its total revenue breaking the RMB10 billion-threshold for the first time. Besides, its net profit in Q1 2022 doubled compared with that in Q1 2020. Boasting strong R&D strength, Jiangsu Yangnong is active in developing new pesticide products with a broad spectrum, high efficiency and low toxicity, following the principle of "usage reduction and efficacy enhancement".

According to Jiangsu Yangnong Chemical Co., Ltd. (Jiangsu Yangnong)'s 2021 annual report released in late March, its total revenue





jumped by 20.5% YoY to USD1.86 billion (RMB11.84 billion), crossing the RMB10 billion-threshold for the first time. Besides, its performance in Q1 2022 also exceeded expectations. Revenue in the first quarter jumped by about 42% YoY to USD829.45 million (RMB5,267.78 million) and the net profit attributable to equity holders of the listed company came to USD142.39 million (RMB904.32 million), up about 104% YoY.

Facing rising price of upstream raw materials and low price of pyrethroid products in 2021, Jiangsu Yangnong quickened production & sales paces and promoted larger sales to ensure a stable and even better main performance indicators. The company produces nearly 70 technical products, covering insecticides, herbicides, fungicides and other categories. Sales volume of insecticides and herbicides was 16,226 tonnes and 54,861 tonnes in 2021, up 5.3% and 4.8% YoY, respectively. As to the exploding net profit in Q1 2022, there are two major contributing factors: for one thing, Phase III project and stage one of Phase IV project of its subsidiary Jiangsu Youjia Crop Protection Co., Ltd. (Jiangsu Youjia) have been either operated at full steam or thrown into production recently, so its output expanded; for another, prices of pesticide products rose from the figures seen in the same period last year.

Jiangsu Yangnong is a national key high-tech enterprise and a major supplier of pyrethroid technical globally. It is the only Chinese enterprise among the top 10 global agrochemical enterprises. Its flagship products are various pyrethroid products, the capacity ranking first in China. Its subsidiary Jiangsu Youjia is rated as a "green factory" by the Ministry of Industry and Information Technology of the People's Republic of China. Jiangsu Yangnong adheres to a "imitation + innovation" product development strategy. Based on the idea "usage reduction and efficacy enhancement", the company is proactive in developing broad-spectrum high-efficiency and low-toxicity new pesticide varieties, as well as keeps a close eye on and tries to imitate patent-off pesticide products that have much potential.

The company is home to the state key laboratory of the discovery and development of novel pesticide in China and it participated in establishing a national engineering research centre for pesticides in Shenyang City, Liaoning Province. It has developed some novel pesticides, including meperfluthrin, flumorph, cyetpyrafen and tetrachlorantraniliprole, which all become leading products in domestic market. Specifically, meperfluthrin is the first domestically developed pesticide that passed the RMB200 million-line in sales and cyetpyrafen is the most popular acaricide in China.

Under the national initiative of carbon peak and carbon neutrality, Jiangsu Yangnong has started to integrate and optimise its resources of innovative platforms, such as the aforementioned state key laboratory and Jiangsu provincial key laboratory of pesticide cleaner production technology. Through technological breakthroughs in new formulation, adjuvant and application, and improvement of drug delivery, it can reduce energy consumption (by reducing the use of raw materials, intermediates, and active ingredients) and carbon emission. For example, meperfluthrin is 14 times more active than allethrin, so less dosage and consumption of raw materials are needed to satisfy family hygienic demand. At the same time, Jiangsu Yangnong pays attention to the development of green production technology and wider application of energy-saving technology, such as deep treatment technology for high-concentration pesticide wastewater and self-heat recuperation technology.





Market Analysis

Most insecticides TC see price drop in early April in China amid sluggish demand

Summary: In April, ex-works prices of most insecticide TC products in China were set lower due to uncertain macro environment at home and weak market demand. Prices of most organophosphorus insecticides TC went down slightly. Most pyrethroid insecticides TC saw lowered prices; some products had larger supply as manufacturers resumed production. Prices of some nicotinoid insecticides TC dropped, which was mainly the result of slow sales.

In April, COVID-19 cases spread to multiple cities in China, especially in Shanghai, which has impacted export of goods. Some manufacturers have faced blocked raw material supply and delivery of end products, while some enterprises warned delayed delivery. As the macro environment at home became uncertain and market demand weakened, ex-works prices of most insecticide TC products in China were set lower.

Organophosphorus insecticides: Ex-works prices of most organophosphorus insecticides TC fluctuated down slightly as compared to last month. However, the price of chlorpyrifos TC increased amid lacklustre downstream demand, propped up by its production cost. Prices of phoxim TC and profenofos TC were basically flat. Considering a slack demand for organophosphorus insecticides, price fall is expected for this insecticide category in the short term.

Pyrethroid insecticides: Ex-works prices of pyrethroid insecticides TC generally showed a downward trend. For one thing, some manufacturers resumed production, guaranteeing stable supply; for another, an uncertain macro environment at home dragged down market demand. In addition, rekindled COVID-19 surges have increased pressure on transportation, and some manufacturers have encountered blocked raw material supply and end product delivery. CCM investigation on 14 April shows that some enterprises with local outbreaks in their cities can ship their goods normally, but the delivery time lengthens. The price of lambda-cyhalothrin TC dropped as a major supplier, Jiangsu Chunjiang Runtian Agrochemical Co., Ltd., resumed production. The Jiangsu-based company also supplies bifenthrin TC stably. Its production has not been affected much by re-emerging COVID-19 cases thanks to good inventory of raw materials, but timely delivery of its products via long-distance transportation might be hampered. In the near future, considering current production cost and gradually picked-up downstream demand, it is expected that ex-works prices of pyrethroid insecticides TC will stop falling.

Nicotinoid insecticides: Some nicotinoid insecticides TC had larger MoM price declines. Prices of imidacloprid TC and acetamiprid TC dropped, mainly as the result of slow downstream sales. However, prices of important intermediates stayed high, such as 3-methyl-4-nitroiminoperhydro-1,3,5-oxadiazine, 2-nitroaminoimidazoline, ethyl N-cyanoethanimideate, which will continue the pressure on producers in the short term. Overall, considering weak market demand, ex-works prices of nicotinoid insecticides TC may go down further.



TABLE 2: Ex-works prices of major insecticide TC products in China in early and mid-April

Category	Product	Ex-works price (RMB/t)	Ex-works price (USD/t)	MoM change
Organophosphorus insecticide	95% Chlorpyrifos technical	45,000	7,086	2.74%
	90% Phoxim technical	43,000	6,771	-4.44%
	90% Profenofos technical	84,000	13,226	-3.45%
	90% Malathion technical	37,000	5,826	-2.63%
Pyrethroid insecticide	94% Cypermethrin technical	83,000	13,069	-5.68%
	95% Lambda-cyhalothrin technical	215,000	33,853	-6.52%
	97% Bifenthrin technical	305,000	48,025	-4.69%
Nicotinoid insecticide	97% Imidacloprid technical	160,000	25,193	-8.57%
	95% Acetamiprid technical	159,000	25,036	-7.83%
Antibiotic insecticide	95% Abamectin technical	650,000	102,348	-2.99%
	70% Emamectin benzoate technical	630,000	99,199	-6.29%

Note: MoM change is calculated with RMB price.

Source: CCM



Pest

Occurrence forecast of fall armyworm in spring

Summary: In April, a video conference on major wheat diseases and pests in mid and late growing period & the occurrence forecast of fall armyworm in 2022 was held by the NATESC. It is expected that fall armyworm occurs moderately on 0.67 million ha (10 million mu) in this spring and fall armyworm will vigorously migrate north from late April.

In April, a video conference on major wheat diseases and pests in mid and late growing period & the occurrence forecast of fall armyworm (*Spodoptera frugiperda*) in 2022 was held by the National Agro-Tech Extension and Service Centre (NATESC). Based on comprehensive analysis of insect population, climate and other factors, it is expected that fall armyworm occurs moderately, on 0.67 million ha (10 million mu) in this spring. Specifically, it will occur severely in Southwest China and South China, occur moderately in the southern part of and middle & lower reaches of the Yangtze River, and occur lightly in the Jiang-Huai region, Huang-Huai region and Northwest China. Starting from late April, fall armyworms will migrate north and gradually attack the middle & lower reaches of the Yangtze River, Jiang-Huai region, Huang-Huai region and Northwest China.

As of the end of Feb., the number of counties reporting fall armyworm larvae decreased by 14 from the same period in 2021 and by 61 from the same period in 2020. Low temperature and rainfalls since early spring has brought down occurrence in year-round breeding regions in Southwest China and South China. And as of 12 April, it had attacked a total of 0.15 million ha (2.18 million mu) in 254 counties among 9 provincial-level regions including Yunnan, Guangdong, Sichuan, Guangxi, Hainan, Fujian, Guizhou, Chongqing and Jiangxi, a 220 ha (0.33 million mu) YoY decrease. In addition, eastward and northward emigration of fall armyworms from year-round breeding regions was significantly slower than the previous two years under the climatic conditions this early spring.

Recent surveys show that the total fall armyworm population decreased by about 20% compared with the same period last year. In April, as it turns warmer and the southwest monsoon grows stronger, the number of pests sourced from Myanmar and Laos to Yunnan Province starts to increase. Predict from the National Meteorological Centre says that from April to May, except Yunnan Province and the western part of Guangxi Province, most parts of southern China would have a temperature close to or higher than the normal temperature of the same period in recent years, which will provide a favourable condition for reproduction of fall armyworms. Besides, gradually intensifying southwest monsoon will lend a helping hand to northward migration of fall armyworms.



Registration

Five new insecticide products registered in late March

Summary: In late March, 2022, the ICAMA released a list of newly-registered pesticides, on which five insecticide products were listed.

On 28 March, 2022, the Institute for the Control of Agrochemicals, Ministry of Agriculture and Rural Affairs (ICAMA) publicised five newly-registered insecticide products, which include four formulation products and one technical product. Active ingredients in these insecticide products are chlorantraniliprole, abamectin, acetamiprid and etc. These products are applicable on citrus trees, Chinese cabbage and corn; their control targets are red spider mite, *Laodelphax striatellus* and snail.

TABLE 3: Newly registered insecticide products by form

No.	Form	Number
1	TC	1
2	GR	1
3	EC	1
4	SC	1
5	WS	1
Total		5

Note: The monitoring period is from 21 Feb. to 28 March, 2022.

Source: ICAMA

TABLE 4: Newly registered insecticide products by active ingredient & content

No.	Active ingredient & content	Number
1	95.3% Chlorantraniliprole	1
2	1.8% Abamectin · 3.2% acetamiprid	1
3	4% Abamectin · 24% spirotetramat	1
4	70% Thiamethoxam	1
5	6% Metaldehyde	1
Total		5

Note: The monitoring period is from 21 Feb. to 28 March, 2022.

Source: ICAMA

TABLE 5: Newly registered insecticide products by registrant

No.	Registrant	Number
1	Jiangsu Lanfeng Biochemical Co., Ltd.	1
2	Qingdao Rainbow Chemical Co., Ltd.	1
3	Shandong Kainuo Biotechnology Co., Ltd.	1
4	Xiangshui Zhongshan Bioscience Co., Ltd.	1
5	Yifan Biotechnology Group Co., Ltd.	1
Total		5

Note: The monitoring period is from 21 Feb. to 28 March, 2022.

Source: ICAMA

TABLE 6: Newly registered insecticide products by applicable crop

No.	Applicable crop	Number
1	Citrus trees	1
2	Chinese cabbage	1
3	Corn	1
Total		3

Note: 1. The monitoring period is from 21 Feb. to 28 March, 2022.

2. Two products are registered without specified applicable crop.

Source: ICAMA

TABLE 7: Newly registered insecticide products by control target

No.	Control target	Number
1	Red spider mite	1
2	<i>Laodelphax striatellus</i>	1
3	Snail	1
Total		3

Note: 1. The monitoring period is from 21 Feb. to 28 March, 2022.

2. Two products are registered without specified control target.

Source: ICAMA



Policy

MIIT issued the Opinions on Promoting the Development of Petrochemical and Chemical Industries (2021–2025)

Summary: On 7 April, MIIT and other five departments jointly released the *Opinions on Promoting High-Quality Development of Petrochemical and Chemical Industries in the 14th Five-Year Period (2021–2025)*. The Opinions specifies major development targets for petrochemical and chemical industries, calling for adjustment to industrial structure and green & low-carbon development. Notably, it requires the above-scale petrochemical and chemical enterprises' R&D expenditure should account for at least 1.5% of their total revenue by 2025.

On 7 April, the Ministry of Industry and Information Technology of the People's Republic of China (MIIT) and other five departments jointly released the *Opinions on Promoting High-Quality Development of Petrochemical and Chemical Industries in the 14th Five-Year Period (2021–2025)* (the Opinions). The document specifies major development targets for petrochemical and chemical industries, calling for adjustment to industrial structure and green & low-carbon development.

In terms of main targets by 2025, the Opinions proposes the petrochemical and chemical industries should basically form a green, low-carbon and high-quality development pattern featuring strong innovation capability and reasonable structural layout. Specifically:

- Above-scale enterprises' R&D expenditure will account for at least 1.5% of their total revenue.
- Production of bulk chemical products will be further concentrated and capacity utilisation rate will surpass 80%; supply security of ethylene equivalent will be boosted significantly and self-supply rate of chemical new material will reach 75%.
- Relocation and upgrading of hazardous chemical enterprises away from densely populated urban areas should be completed, and about 70 chemical industrial parks with competitive advantages will have been established; the production value of enterprises settled in chemical industrial parks will make up over 70% of the national total of these industries.
- Automation rate of main production devices in enterprises in key industries like petrochemical and coal chemical will surpass 95%. Some 30 smart manufacturing demonstration factories and some 50 smart manufacturing demonstration chemical parks will have been set up.
- Unit consumption and carbon emission of bulk chemical products will decrease obviously. Total emissions of VOCs will be reduced by more than 10% compared with those in the 13th Five-Year Period.

In terms of promoting industrial structure adjustment, petrochemical industry chain should be extended; supply capability of high-end polymers and specialty chemicals should be increased. Meanwhile, strictly control new capacity in ammonium phosphate and yellow phosphorus industries and prohibit vinyl chloride and polyvinyl chloride production capacity using mercury; speed up the phase-out of ineffective, backward capacity. For coal chemical industry, high-end, diversified, low carbon development will be promoted; develop modern coal chemical industry in an orderly manner.

In terms of promoting green & low-carbon development, it proposes to promote co-ordinated development of petrochemical and chemical industries with industries like building material, metallurgy, energy saving, environmental protection; improve multipurpose use of solid wastes like various industrial by-products gypsum, carbide slag, caustic sludge and fly ash; encourage enterprises to better utilise associated resources with phosphate and potassium ores, industrial waste salt, tailings, and off-gases in yellow phosphorus and calcium carbide production, or dispose of these in an eco-friendly way; develop and scientifically promote biodegradable plastics, as well as





recycling of waste chemical materials such as waste plastics and scrap rubber.

Shandong issues the Opinions on Continuously Promoting Usage Reduction on and Efficacy Enhancement of Fertilisers and Pesticides

Summary: On 11 April, Shandong Provincial Department of Agriculture and Rural Affairs released the *Opinions on Continuously Promoting Usage Reduction on and Efficacy Enhancement of Fertilisers and Pesticides* (the Opinions). It requires a better use of the pests & diseases monitoring and early warning networks within the province and establishment of a system for recycling and treating pesticide packaging wastes. By 2023, pesticide consumption in the province should be reduced by 6% compared with that in 2020.

On 11 April, Shandong Provincial Department of Agriculture and Rural Affairs released the *Opinions on Continuously Promoting Usage Reduction on and Efficacy Enhancement of Fertilisers and Pesticides* (the Opinions). It requires a better use of the pests & diseases monitoring and early warning networks within the province and establishment of a system for recycling and treating pesticide packaging wastes. By 2023, pesticide consumption in the province should be reduced by 6% compared with that in 2020, if major agricultural diseases and pests occur at a stable level.

Strengthening technical guidance, and enhancing green prevention & control and specialised services

- Firstly, strengthen technical guidance on drug use. Send out technicians to guide farmers on selection and proper use of pesticides. Carry out real-time monitoring on diseases and pests occurred on crop fields in the province.
- Second, enhance green prevention and control practices on diseases & pests, and provide better professional services. Set up a batch of green prevention and control demonstration bases to encourage wider adoption of methods to cut down pesticide use and to raise efficacy. Advance the establishment of demonstration counties applying specialised unified prevention and control measures against diseases & pests. Cultivate a set of professional organisations that could provide full services on prevention and control over diseases & pests to improve overall capability.

Replacing outdated pesticide sprayers, and establishing a system for recycling & treating pesticide packaging wastes

- Firstly, replace outdated sprayers, such as knapsack manual sprayers, with plant protection equipment. Modern machinery should be introduced into everyday practices—agricultural unmanned aerial vehicles (UAVs) in major crop fields, ultra-low-volume sprayers and precision sprayers for greenhouse vegetables, air-blast sprayers in orchards, double-control, directed sprayers in soybean-maize strip-cropping areas, and etc.
- Second, establish a system for recycling and treating pesticide packaging wastes. Raise awareness in pesticide manufacturers, operators and users of their responsibilities in packaging waste recycling, and set up a recycling system linking together pesticide producers, operators, users and recycling stations to achieve effective recovery and treatment of pesticide packaging wastes.





Import and Export

Share of chlorpyrifos export to Brazil remains stable in 2021

Summary: In 2021, China exported 3,891.75 tonnes (actual volume) of chlorpyrifos products to Brazil, down 20.91% from and 1,028.86 tonnes less than that in 2020. The amount to Brazil accounted for 23.31% (based on actual volume) of China's total chlorpyrifos export to major destinations, down 1.05 percentage points from the country's share in 2020.

According to the import and export data from Tranalysis, in 2021, chlorpyrifos products from China were mainly exported to 36 destinations such as Brazil, Pakistan, Nigeria, Peru and Indonesia. Export volume to the biggest destination Brazil was 3,891.75 tonnes (actual volume), or 3,756.60 tonnes (100% AI volume). Although export to Brazil from China dropped by 1,028.86 tonnes in 2021, Brazil still took a basically stable share to China's total chlorpyrifos export to major destinations.

Here's the information of China's chlorpyrifos exports to major destinations in 2021.

Chlorpyrifos formulation

- Specifications for export: 15% GR, 200g/L EC, 400g/L EC, 480g/L EC, 500g/L EC
- Main destination: China exported 4,722.72 tonnes (actual volume, the same hereafter) of chlorpyrifos formulation products to major destinations, at an average price of USD3.78/kg. In particular, 1,557.75 tonnes went to Nigeria, which makes up 32.98% to the total chlorpyrifos formulation export.
- Compared with 2020, the year 2021 saw chlorpyrifos formulation export to major destinations decrease by 427.81 tonnes. As regards the export to Brazil, a climb of 25.56 tonnes was seen, though the country's share to the total was basically flat.

Chlorpyrifos technical

- Specifications for export: 90% TC, 94% TC, 95% TC, 96% TC, 97% TC, 98% TC
- Main destination: China exported 11,975.42 tonnes of chlorpyrifos technical products to major destinations, at an average price of USD6.01/kg. In particular, 3,851.75 tonnes went to Brazil, which makes up 32.16% to the total chlorpyrifos technical export.
- Compared with 2020, the year 2021 saw chlorpyrifos technical export to major destinations decrease by 3,073.34 tonnes. Even though the export to Brazil slipped largely by 1,054.42 tonnes, its share to the total was basically flat.



TABLE 8: Exports of China's chlorpyrifos formulation to major destinations, 2021

No.	Destination	Volume, kg	Average price, USD/kg
1	Nigeria	1,557,752	3.18
2	Peru	633,975	4.07
3	Ghana	493,908	4.19
4	Bangladesh	380,640	3.85
5	Pakistan	323,320	3.81
6	The US	233,995	3.90
7	Uganda	163,618	3.81
8	Chile	150,773	3.86
9	Kenya	102,074	5.00
10	Honduras	99,303	4.08
	Others	583,363	4.35
	Total	4,722,721	3.78

Note: The data, sourced from Tranalysis, were updated to 1 April, 2022.

Source: Tranalysis



TABLE 9: Exports of China's chlorpyrifos technical to major destinations, 2021

No.	Destination	Volume, kg	Average price, USD/kg
1	Brazil	3,851,750	6.04
2	Pakistan	1,587,800	5.92
3	Mexico	936,422	6.19
4	Indonesia	895,500	5.03
5	Argentina	865,160	5.60
6	Colombia	833,454	7.28
7	Peru	576,968	6.27
8	The US	532,624	6.03
9	Australia	432,800	5.92
10	Russia	345,980	6.11
	Others	1,116,963	5.90
	Total	11,975,420	6.01

Note: The data, sourced from Tranalysis, were updated to 1 April, 2022.

Source: Tranalysis



TABLE 10: Export volume of China's chlorpyrifos formulation to top 10 destinations, 2021 vs 2020

No.	2021			2020		
	Destination	Volume, kg	Share	Destination	Volume, kg	Share
1	Nigeria	1,557,752	32.98%	Nigeria	998,025	19.38%
2	Peru	633,975	13.42%	Uganda	439,625	8.54%
3	Ghana	493,908	10.46%	Peru	424,803	8.25%
4	Bangladesh	380,640	8.06%	Bangladesh	396,919	7.71%
5	Pakistan	323,320	6.85%	Pakistan	367,115	7.13%
6	The US	233,995	4.95%	Indonesia	272,028	5.28%
7	Uganda	163,618	3.46%	Vietnam	267,540	5.19%
8	Chile	150,773	3.19%	Chile	154,348	3.00%
9	Kenya	102,074	2.16%	Kenya	150,546	2.92%
10	Honduras	99,303	2.10%	Australia	136,816	2.66%
Sub-total		4,139,358	87.65%	Sub-total	3,607,765	70.05%

Note: The data, sourced from Tranalysis, were updated to 1 April, 2022.

Source: Tranalysis

TABLE 11: Export volume of China's chlorpyrifos technical to top 10 destinations, 2021 vs 2020

No.	2021			2020		
	Destination	Volume, kg	Share	Destination	Volume, kg	Share
1	Brazil	3,851,750	32.16%	Brazil	4,906,170	32.60%
2	Pakistan	1,587,800	13.26%	Pakistan	1,829,998	12.16%
3	Mexico	936,422	7.82%	Indonesia	1,722,618	11.45%
4	Indonesia	895,500	7.48%	Vietnam	1,127,500	7.49%
5	Argentina	865,160	7.22%	Mexico	938,004	6.23%
6	Colombia	833,454	6.96%	Australia	747,824	4.97%
7	Peru	576,968	4.82%	Russia	473,006	3.14%
8	The US	532,624	4.45%	Israel	440,000	2.92%
9	Australia	432,800	3.61%	Peru	379,500	2.52%
10	Russia	345,980	2.89%	Colombia	273,000	1.81%
	Sub-total	10,858,457	90.67%	Sub-total	12,837,620	85.31%

Note: The data, sourced from Tranalysis, were updated to 1 April, 2022.

Source: Tranalysis



News in Brief

Hunan Haili's first national key R&D program passes acceptance check

Late March, the program "green preparation technology for high efficacy pesticides and intermediates", a national key R&D program led by Hunan Haili Chemical Industry Co., Ltd. (Hunan Haili), successfully passed comprehensive performance evaluation and acceptance check organised by the Ministry of Science and Technology of the People's Republic of China.

The program has overcome some difficult technical problems, such as those in preparation of (S)-5-chlor-2,3-dihydro-2-hydroxyl-1-oxo-1H-inden-2-carboxylate, a key intermediate for indoxacarb and in preparation of benzonitrile through continuous ammoxidation. It has also formed a catalytic oxidation system with independent intellectual property rights and developed core techniques and equipment of multi-dimensional & heterogeneous reaction. Altogether, eight sets of production devices have been built, including three kt/a-level production lines adopting green production processes, which signify an attainment of applicable key equipment and integrated technology for industrial production.

First batch of six chemical industrial parks in Sichuan Province unveiled

On 1 April 2022, Sichuan Provincial Economic and Information Department, along with other five departments, jointly unveiled the province's first batch of six approved chemical industrial parks. The regional government also required the approved chemical parks to improve safeness & green production. Once failure of park's management to fulfil its responsibilities, failure to carry out promised rectification work, or a major/particularly serious work safety or environmental accident takes place in such a park, it will be disqualified as a chemical industrial park based on relevant regulations and requirements.

TABLE 12: List of approved chemical parks (first batch) in Sichuan Province

No.	Chemical industrial park	Location
1	Xinqiao Chemical Industrial Park	Guang'an City
2	Jingkai Chemical Industrial Park	Mianyang City
3	Daying Hongqi Chemical Industrial Park	Suining City
4	Anju Chemical Industrial Park	Suining City
5	Chuannan New material Chemical Industrial Park	Zigong City
6	High-tech Chemical Industrial Park	Meishan City

Source: Sichuan Provincial Economic and Information Department

Jiangsu Runze's pesticide technical project lands in Lanzhou City

In late March, Jiangsu Runze Agrochemical Co., Ltd. (Jiangsu Runze) signed an investment agreement to settle its pesticide technical project in Xinqu Chemical Industrial park, Lanzhou City, Gansu Province. The project is expected to generate an annual output value of





USD79 million (RMB500 million) once it is operated at full steam. Jiangsu Runze mainly engages in the production and sale of pesticide technical (including mepiquat chloride, hexythiazox and bispyribac-sodium), formulations and intermediates.

Project overview

- Total investment: USD41 million (RMB260 million)
- Area: 8 ha
- Product & designed capacity, including:
 - 1,000 t/a Hexythiazox technical
 - 1,000 t/a Mepiquat chloride technical
 - 1,000 t/a Lambda-cyhalothrin technical
 - 1,000 t/a Bifenthrin technical
 - 1,000 t/a Thifensulfuron-methyl technical
 - 500 t/a Bispyribac-sodium technical
 - 500 t/a Pyribenzoxim technical

Shanghai Port strengthens closed-loop management of container trucks

The worsening COVID situation in Shanghai has impacted cargo transportation in Shanghai Port. Many world's leading shipping companies, including Maersk, CMA CGM, Hapag-Lloyd and COSCO Shipping, have announced business adjustment, changed customer service hours in Shanghai or even suspended some services. Maersk, for example, announced closure of its Shanghai warehouse from 28 March to 1 April, and predicted that trucking service in and out Shanghai would be severely affected by 30% due to the lockdown.

To deal with the COVID-incurred pressures of, Shanghai International Port (Group) Co., Ltd. (SIPG) conducted closed-loop management of personnel and kept 24-hour operation in all departments. Meanwhile, SIPG launched "container land-to-water" service to circumvent road traffic congestion. In addition, on 5 April, the Shanghai Municipal Transport Commission issued the *Notice on Further Strengthening the Closed-loop Management of Container Trucks in and out Shanghai Port* (the Notice). According to the Notice, container trucks going in and out the Shanghai Port, which are subject to closed-loop management, should have valid road transport certificate, have installed satellite positioning systems and keep the functions on, and follow some other requirements.

EIA of Anhui Chongchong's biopesticides and biofertiliser project publicised

On 1 April, environmental impact assessment (EIA) report of Anhui Chongchong Biotechnology Co., Ltd. (Anhui Chongchong)'s 10,000 t/a biopesticides and biofertiliser project was publicised. This USD78.73 million (RMB500 million)-worth project plans to build production lines of 5,000 t/a nuclear polyhedrosis virus (NPV) biopesticides (2,500 t/a each for virus pesticides against fall armyworm and celery looper) and 5,000 t/a biofertiliser.

Anhui Chongchong mainly engages in the R&D, production and sales of biopesticides and biofertilisers, as well as in the R&D, production, sales and promotion of biophysical prevention and control technologies, and green prevention & control products against diseases and pests.





Guizhou issues action plan for phosphorus pollution prevention & control

On 7 April, Guizhou Provincial Department of Ecology and Environment issued the *Special Action Plan for Strengthening the Prevention and Control of Phosphorus Pollution in Guizhou Province*, which requires further improvement to pollution treatment in phosphorus chemical enterprises and to water quality of Wujiang River, Qingshui River and other key river basins (regions).

The main target of this plan is to ensure that the total phosphorus concentration in the main tributaries of Wujiang River (Yangshui River, Weng'an River and Xifeng River) and Qingshui River (Chong'an River) stays within the water quality standard of Class (applicable to secondary protection area of centralised domestic and drinking water sources, average fish protection area and swimming area). Through strengthened pollution control efforts in "three phospho-s" enterprises (involved in phosphate ore mining, phosphorus chemicals production and phosphogypsum stacking), total phosphorus concentration in the treated effluent water would stabilise within the regulating requirements, and a phosphorus pollution management system would be continuously improved.

Pass rate of insecticides lags behind in 2021 pesticides random checking

On 20 April, the General Office of the Ministry of Agriculture and Rural Affairs notified the results of supervision and random checking on pesticide products in 2021. In total, 4,868 pesticide samples were reviewed. The pass rate of insecticides was lower than that of herbicides and fungicides. In addition, the pass rate of single formulations was higher than that of mixed formulations. Single formulations, 75.8% of the total, had a pass rate of 95.9%, while the mixed formulations got a rate of 93.8%.

TABLE 13: Results of the random checking on pesticide products in 2021 by category

Category	Total sample	Share to the total	Qualified sample	Pass rate
Insecticide products	2,241	46.1%	2,103	93.8%
Herbicide products	1,431	29.4%	1,390	97.1%
Fungicide products	1,002	20.6%	972	97.0%

Source: General Office of the Ministry of Agriculture and Rural Affairs

Hebei Veyong's emamectin benzoate new technology industrialisation project won a third prize in Hebei

The 2021 Hebei Provincial Science and Technology award ceremony was held in Shijiazhuang City, Hebei Province on 12 April, 2022. Altogether 214 projects were given Science and Technology Progress awards. Among them, the new technology of emamectin benzoate production industrialisation project, which was independently developed by Hebei Veyong Bio-Chemical Co., Ltd. (Hebei Veyong), won a third prize.

Hebei Veyong is an early comer in industrial production of emamectin benzoate, and plays a leading role in drafting national standard of the technical product. This time, the new technology for emamectin benzoate production mainly deals with difficulties in achieving clean production and in expanding application. Meanwhile, it has made a series of innovative breakthroughs in the selection of solvent system





for reaction, catalysts, oxidants and terminators. The optimised green production technology can deliver high-quality emamectin benzoate product.

Zhejiang Lianhe's capacity expansion proceeds steadily

On 22 April, 2022, Lianhe Chemical Technology Co., Ltd. (Zhejiang Lianhe) released its 2021 annual report. In 2021, the company achieved a total revenue of USD1.04 billion (RMB6.59 billion), up 37.75% YoY, and a net profit attributable to equity holders of the listed company of USD49.66 million (RMB315.41 million), soaring by 186.65% YoY. Zhejiang Lianhe had a design capacity of 35,367 t/a for pesticide products & intermediates, of which 8,265 t/a for insecticide products & intermediates.

As regards the company's capacity expansion projects, the production base for its subsidiary Lianhe Technology (Linhai) Co., Ltd. is under construction, and Lianhe Technology (Dezhou) Co., Ltd.'s technology transformation project for 40,000 t/a phosgene and downstream products is also in progress.

TABLE 14: Zhejiang Lianhe's production capacity by main product category, 2021

Main product category	Design capacity (t/a)	Capacity under construction (t/a)
Herbicides and intermediates	21,005	/
Insecticides and intermediates	8,265	3,300
Fungicides and intermediates	6,097	1,750
APIs and intermediates	2,166	280
Performance chemicals	51,131	/

Source: Zhejiang Lianhe's 2021 annual report

Thiacloprid, spirotetramat and pymetrozine have registered application widened in China

In late March, Shaanxi Sunger Road Bio-Science Co., Ltd.'s pymetrozine · thiacloprid 50% WG was approved to add a new control target—woolly apple aphid. It is recommended to apply in the early developing period of the aphid with 2,500-fold to 3,500-fold dilution. Its safety interval is 14 days and the minimum application interval is once per season. The approval also marks the first time that a pymetrozine product has been registered on apple trees in China.

In addition, Bayer AG's spirotetramat · thiacloprid 22% SC was newly approved to be applicable on potato in China recently, controlling against aphids on this crop. It is recommended to spray once in the early developing period, with a dose of 20 ml/mu—40 ml/mu (1 mu = 0.067 ha). The safety interval for this product is 10 days, and the minimum application interval is once per season. The approval marks the first time that thiacloprid and spirotetramat have been registered on potato in China.



Price Update

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

TABLE 15: Ex-works prices of major insecticides in China, 8 April 2022

Product	20220308		20220408	
	Original Price (RMB/t)	Price (USD/t)	Original Price (RMB/t)	Price (USD/t)
95% Abamectin technical	670,000	106,325.58	650,000	102,347.7
97% Acephate technical	62,000	9,839.08	58,500	9,211.29
95% Acetamiprid technical	172,500	27,374.87	159,000	25,035.82
95% Azocyclotin technical	225,000	35,706.35	230,000	36,215.34
95% Beta-Cypermethrin technical	180,000	28,565.08	180,000	28,342.44
97% Bifenthrin technical	320,000	50,782.37	305,000	48,024.69
95% Buprofezin technical	75,200	11,933.86	80,000	12,596.64
98% Carbofuran technical	115,000	18,249.91	115,000	18,107.67
98% Chlorfenapyr technical	315,500	50,068.24	315,500	49,678
95% Chlorfluazuron technical	560,000	88,869.14	560,000	88,176.48
95% Chlorpyrifos technical	43,800	6,950.84	45,000	7,085.61
94% Cypermethrin technical	88,000	13,965.15	83,000	13,069.01
99% Cyromazine technical	160,000	25,391.18	160,000	25,193.28
98% Deltamethrin technical	590,000	93,629.99	590,000	92,900.22



Product	20220308		20220408	
	Original Price (RMB/t)	Price (USD/t)	Original Price (RMB/t)	Price (USD/t)
95% Diafenthiuron technical	153,000	24,280.32	150,000	23,618.7
98% Dimethoate technical	49,000	7,776.05	47,600	7,495
70% Emamectin benzoate technical	672,300	106,690.58	630,000	99,198.54
92% Fenvalerate technical	140,000	22,217.29	140,000	22,044.12
95% Fipronil technical	620,000	98,390.83	600,000	94,474.8
98% Hexaflumuron technical	550,000	87,282.19	540,000	85,027.32
97% Imidacloprid technical	175,000	27,771.61	160,000	25,193.28
98% Isoprocarb technical	53,500	8,490.18	44,000	6,928.15
95% Lambda-cyhalothrin technical	230,000	36,499.83	215,000	33,853.47
90% Malathion technical	38,000	6,030.41	37,000	5,825.95
95% Methidathion technical	90,000	14,282.54	90,000	14,171.22
Methomyl 90% SP	74,000	11,743.42	75,000	11,809.35
98% Methomyl technical	85,000	13,489.07	86,000	13,541.39
75% Omethoate technical	52,800	8,379.09	51,400	8,093.34
90% Phoxim technical	45,000	7,141.27	43,000	6,770.69
90% Profenofos technical	87,000	13,806.46	84,000	13,226.47
90% Propargite technical	56,000	8,886.91	58,000	9,132.56





Product	20220308		20220408	
	Original Price (RMB/t)	Price (USD/t)	Original Price (RMB/t)	Price (USD/t)
95% Pymetrozine technical	155,000	24,597.71	150,000	23,618.7
95% Pyridaben technical	105,000	16,662.96	105,000	16,533.09
97% Spirodiclofen technical	175,000	27,771.61	173,000	27,240.23
85% Triazophos technical	58,500	9,283.65	58,500	9,211.29

Note: Ex-works price includes VAT.

Source: CCM

Shanghai Port prices of major insecticides in China, 8 April 2022



TABLE 16: Shanghai Port prices of major insecticides in China, 8 April 2022

Product	20220308		20220408	
	Original Price (RMB/t)	Price (USD/t)	Original Price (RMB/t)	Price (USD/t)
95% Abamectin technical	670,500	106,404.93	650,500	102,426.43
97% Acephate technical	62,500	9,918.43	59,000	9,290.02
95% Acetamiprid technical	173,000	27,454.22	159,500	25,114.55
95% Azocyclotin technical	225,500	35,785.7	230,500	36,294.07
95% Beta-Cypermethrin technical	180,500	28,644.43	180,500	28,421.17
97% Bifenthrin technical	320,500	50,861.71	305,500	48,103.42
95% Buprofezin technical	75,700	12,013.2	80,500	12,675.37
98% Carbofuran technical	115,500	18,329.26	115,500	18,186.4
98% Chlorfenapyr technical	316,000	50,147.59	316,000	49,756.73
95% Chlorfluazuron technical	560,500	88,948.49	560,500	88,255.21
95% Chlorpyrifos technical	44,300	7,030.18	45,500	7,164.34
94% Cypermethrin technical	88,500	14,044.5	83,500	13,147.74
99% Cyromazine technical	160,500	25,470.53	160,500	25,272.01
98% Deltamethrin technical	590,500	93,709.33	590,500	92,978.95
95% Diafenthiuron technical	153,500	24,359.67	150,500	23,697.43



Product	20220308		20220408	
	Original Price (RMB/t)	Price (USD/t)	Original Price (RMB/t)	Price (USD/t)
98% Dimethoate technical	49,500	7,855.4	48,100	7,573.73
70% Emamectin benzoate technical	672,800	106,769.92	630,500	99,277.27
92% Fenvalerate technical	140,500	22,296.63	140,500	22,122.85
95% Fipronil technical	620,500	98,470.18	600,500	94,553.53
98% Hexaflumuron technical	550,500	87,361.54	540,500	85,106.05
97% Imidacloprid technical	175,500	27,850.95	160,500	25,272.01
98% Isoprocarb technical	54,000	8,569.52	44,500	7,006.88
95% Lambda-cyhalothrin technical	230,500	36,579.17	215,500	33,932.2
90% Malathion technical	38,500	6,109.75	37,500	5,904.67
95% Methidathion technical	90,500	14,361.89	90,500	14,249.95
Methomyl 90% SP	74,500	11,822.77	75,500	11,888.08
98% Methomyl technical	85,500	13,568.41	86,500	13,620.12
75% Omethoate technical	53,300	8,458.44	51,900	8,172.07
90% Phoxim technical	45,500	7,220.62	43,500	6,849.42
90% Profenofos technical	87,500	13,885.8	84,500	13,305.2
90% Propargite technical	56,500	8,966.26	58,500	9,211.29
95% Pymetrozine technical	155,500	24,677.06	150,500	23,697.43
95% Pyridaben technical	105,500	16,742.31	105,500	16,611.82





Product	20220308		20220408	
	Original Price (RMB/t)	Price (USD/t)	Original Price (RMB/t)	Price (USD/t)
97% Spirodiclofen technical	175,500	27,850.95	173,500	27,318.96
85% Triazophos technical	59,000	9,363	59,000	9,290.02

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 April 2022





TABLE 17: FOB Shanghai prices of major insecticides in China, 8 April 2022, USD/t

Product	20220308	20220408
95% Abamectin technical	103,567.4	99,697.7
97% Acephate technical	9,397.8	8,807.59
95% Acetamiprid technical	26,789.65	24,513.67
95% Azocyclotin technical	34,891.82	35,385.49
95% Beta-Cypermethrin technical	26,963.78	26,753.62
97% Bifenthrin technical	47,804.77	45,216.61
95% Buprofezin technical	11,773.62	12,416.85
98% Carbofuran technical	17,915.84	17,776.2
98% Chlorfenapyr technical	48,858.43	48,477.62
95% Chlorfluazuron technical	86,591.42	85,916.51
95% Chlorpyrifos technical	6,927.75	7,057.5
94% Cypermethrin technical	13,268.27	12,426.33
99% Cyromazine technical	23,986.49	23,799.54
98% Deltamethrin technical	87,998.12	87,312.24
95% Diafenthiuron technical	22,944.44	22,322.5
98% Dimethoate technical	7,462.56	7,197.61
70% Emamectin benzoate technical	103,922.36	96,635.21
92% Fenvalerate technical	21,009.21	20,845.46
95% Fipronil technical	95,851.05	92,041.48
98% Hexaflumuron technical	85,048.15	82,854.02
97% Imidacloprid technical	27,175.47	24,666.79
98% Isoprocarb technical	8,132.45	6,665.88
95% Lambda-cyhalothrin technical	34,406.99	31,923.26





Product	20220308	20220408
90% Malathion technical	5,825.06	5,631.95
95% Methidathion technical	14,057.66	13,948.09
Methomyl 90% SP	11,588.43	11,651.23
98% Methomyl technical	14,466.63	14,520.78
75% Omethoate technical	8,028.25	7,758.89
90% Phoxim technical	7,068.07	6,708.71
90% Profenofos technical	13,119.41	12,574.04
90% Propargite technical	8,810.54	9,048.11
95% Pymetrozine technical	23,242.17	22,322.5
95% Pyridaben technical	16,372.57	16,244.96
97% Spirodiclofen technical	26,219.46	25,719.69
85% Triazophos technical	9,196.35	9,124.68

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.

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Editor : Joanna
Chief Editor : Anton
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17th Floor, Huihua Commercial & Trade Building, No.80 XianlieZhong Road Guangzhou, 510070, P.R.China

Tel: +86-20-37616606

Fax: +86-20-37616768

E-mail: econtact@cnchemicals.com

Website: www.cnchemicals.com