Insecticides China Monthly Report 202310

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Headline

In early Oct., the prices of nicotinoid insecticides TC kept edging up, and the price of methomyl TC climbed up. However, the prices of lambda-cyhalothrin TC and several organophosphorus insecticides TC declined.

In late Oct., there were mixed price trends in insecticide market. The prices of nicotinoid insecticides TC kept edging up, and the prices of malathion TC and cypermethrin TC bounced back quickly; however, the prices of phoxim TC, chlorpyrifos TC and bifenthrin TC declined.

Dezhou New Power has put its newly-built diafenthiuron TC line into trial run by Oct. The company completed the construction of 8,500 t/a fine chemical production project (Phase I) and 1,000 t/a diafenthiuron TC project in mid-2023.

As the construction of the phase I program of Shandong Hengdong's 48,000 t/a high-end and green chemical industrial project has progressed smoothly, the phase II program—including the building of 1,000 t/a chlorantraniliprole TC production capacity—is now high on the company's agenda. Moreover, in the future, the company will further construct 4,000 t/a chlorantraniliprole TC capacity and large-scale cyantraniliprole TC capacity in later phases.

Gansu Langma Qiyun has finished the construction of 500 t/a bifenazate TC line, which not only helps serve the company's long-term development, but also is a piece of good news to the bifenazate market in China.

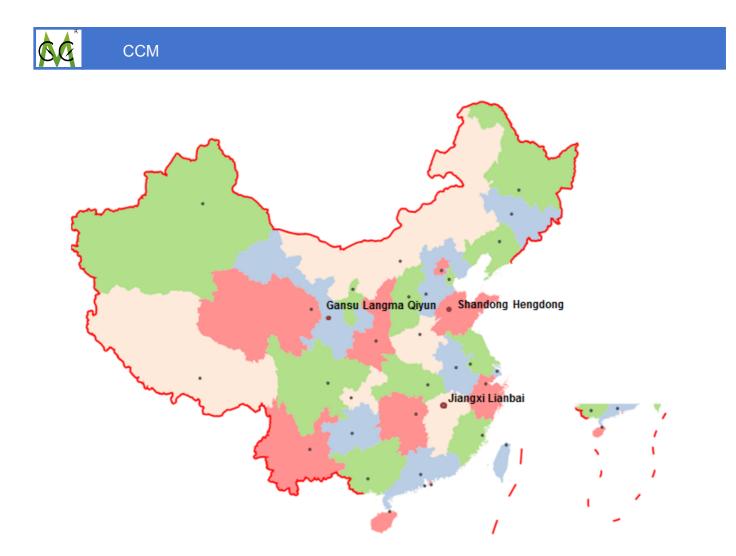
In late Sept., the General Office of MARA issued a notice calling for effectively strengthening the supervision and administration of pesticides nationwide.

In the first three quarters of 2023, altogether 289 insecticide products were approved of pesticide registration in China, which include 10 TC products. SC is the most popular form of these products and the majority of them are of low toxicity.

On 10 Oct., NATESC released technical guiding opinions on the control of diseases & pests on wheat in autumn and winter 2023.

In July–Aug. 2023, China's insecticide formulations were mainly exported to Brazil, Thailand, Nigeria, etc.; the export volume increased by 7.27% YoY. However, the import volume of insecticide formulations to China in this period dove by 39.12% YoY. Main import origins were Japan, France, Australia, etc.









Editor's note

In Oct., there were mixed price trends in insecticide market. The prices of nicotinoid insecticides TC kept edging up, supported by rising raw material price. In late Oct., the prices of malathion TC and cypermethrin TC bounced back quickly; however, the prices of phoxim TC, chlorpyrifos TC and bifenthrin TC declined.

As regards company dynamics, Dezhou New Power has put its newly-built diafenthiuron TC line into trial run, Gansu Langma Qiyun has finished the construction of 500 t/a bifenazate TC line, and Shandong Hengdong has set the task of building large-scale chlorantraniliprole TC capacity high on the agenda.

As to pest control, NATESC released technical guiding opinions on the control of diseases & pests on wheat in autumn and winter 2023 on 10 Oct., in order to win the battle against pests and better safeguard the harvest. In recent years, affected by changes made to tillage methods, climatic anomaly, etc., the occurrence of underground pests has become heavier year by year. To do a good job on prevention and control of wheat diseases & pests in autumn and winter period, autumn wheat seed dressing is a practice should be widely promoted, as it could not only guard against underground pests effectively, but also reduce damages caused by diseases & pests (aphids included) in autumn, and thus cut down pest population for infestation next year and relieve control pressures at the mid to late growth stage of wheat.

The USD/CNY exchange rate in this newsletter is USD1.00 = CNY7.1789 on 9 Oct., 2023, sourced from the People's Bank of China. All the prices mentioned in this newsletter will include the VAT, unless otherwise specified.





Market analysis

Price of nicotinoids keeps going up, but price of organophosphates drops in early Oct.

Summary: In early Oct., the prices of nicotinoid insecticides TC kept edging up, and the price of methomyl TC climbed up. However, the prices of lambda-cyhalothrin TC and several organophosphorus insecticides TC declined.

In early Oct., the prices of nicotinoid insecticides TC in China kept edging up, and the price of methomyl TC climbed up. However, the prices of lambda-cyhalothrin TC and several organophosphorus insecticides TC declined. The prices of other major insecticides TC CCM investigated remained stable.

Organophosphorus insecticides: Except for a stable price of phoxim TC, the ex-works prices of chlorpyrifos TC, malathion TC and profenofos TC decreased by 4.15%, 7.89% and 8.11% MoM, respectively. The price falls in malathion TC and profenofos TC were mainly the result of fluctuations in raw material price. Malathion TC producer Huludao Lingyun Group Pesticides Chemical Co., Ltd. has suspended the line. For chlorpyrifos TC, sluggish domestic demand led to the slip in its price. Currently, chlorpyrifos is mainly for export. As regards its supply, Shandong Luba Chemical Co., Ltd., Hubei Benxing Agrochemical Co., Ltd., Zhejiang Xinnong Chemical Co., Ltd. (Zhejiang Xinnong) and Jiangsu Fengshan Group Co., Ltd. have had normal supply (Zhejiang Xinnong's chlorpyrifos TC is mainly for export), yet Inner Mongolia Miraculous Crop Science Co., Ltd. and Chongqing Huage Biochemical Co., Ltd. have suspended production. It is expected the price of chlorpyrifos TC will stabilise in the short term.

Carbamate insecticides: Ex-works prices of isoprocarb TC and carbofuran TC were stable, while the price of methomyl TC increased by 5. 55% MoM mainly because of rising raw material price. However, as domestic demand for methomyl TC has been weak, it is estimated that its price will stay at this level.

Pyrethroid insecticides: Ex-works prices of most pyrethroid insecticides remained stable, but the price of lambda-cyhalothrin TC still edged down by 2.54% MoM due to weak demand at domestic market. Regarding the supply of lambda-cyhalothrin TC, Shandong Gaoxin Runnong Chemical Co., Ltd., Jiangsu Yangnong Chemical Co., Ltd., Guangdong Liwei Chemical Industry Co., Ltd. and Jiangsu Chunjiang Runtian Agrochemical Co., Ltd. have operated the lines normally, while Jiangsu Changlong Agrochemical Co., Ltd. has suspended its line.

Nicotinoid insecticides: On a monthly basis, the prices of imidacloprid TC and acetamiprid TC went up by 2.07% and 0.60%, respectively, mainly due to the rising price of the raw material 2-chloro-5-(chloromethyl)pyridine (CCMP). Operating rate in imidacloprid TC producers varies—Shandong Sino-Agri United Biotechnology Co., Ltd. has operated its line at a high level; Wuzhong Linghang Biological & Pharmaceutical Co., Ltd. and Hebei Yetian Agrochemicals Co., Ltd. have operated at a low level; Anhui Huaxing Chemical Industry Co., Ltd., Jiangsu Kwin Group Co., Ltd., Jiangsu Jiannong Agrochemical Co., Ltd., Yancheng Limin Chemical Co., Ltd. and Yancheng Shuangning Agro-chemical Co., Ltd. have suspended their lines. Considering the upward trend of CCMP price, it is projected that small increase in the price of nicotinoid insecticides will continue.





Category	Product	Ex-works price (RMB/t)	Ex-works price (USD/t)	RMB MoM change
	90% Phoxim technical	39,000	5,432.59	0.00%
Organophosphorus insecticide	95% Chlorpyrifos technical	37,000	5,153.99	-4.15%
	90% Malathion technical	35,000	4,875.40	-7.89%
	90% Profenofos technical	68,000	9,472.20	-8.11%
	98% Carbofuran technical	98,000	13,651.12	0.00%
Carbamate insecticide	98% Methomyl technical	78,000	10,865.17	5.55%
	98% Isoprocarb technical	45,500	6,338.02	0.00%
	97% Bifenthrin technical	158,000	22,008.94	0.00%
Pyrethroid insecticide	95% Lambda-cyhalothrin technical	115,000	16,019.17	-2.54%
r yrethrold insecticide	94% Cypermethrin technical	54,000	7,522.04	0.00%
	98% Deltamethrin technical	385,000	53,629.39	0.00%
Nicotinoid insecticide	97% Imidacloprid technical	93,900	13,080.00	2.07%
Nicotinoid insecticide	95% Acetamiprid technical	84,300	11,742.75	0.60%

TABLE 1: Ex-works prices of major insecticide TC products in China in early Oct. 2023

Source:CCM

Mixed price trends in insecticides TC, price of nicotinoids still in uptrend in late Oct.

Summary: In late Oct., there were mixed price trends in insecticide market. The prices of nicotinoid insecticides TC kept edging up, and the prices of malathion TC and cypermethrin TC bounced back quickly; however, the prices of phoxim TC, chlorpyrifos TC and bifenthrin TC declined.

In late Oct., there were mixed price trends in insecticide market. Of the major insecticides TC CCM investigated, nicotinoid insecticides TC, malathion TC, carbofuran TC, lambda-cyhalothrin TC and cypermethrin TC saw price increase on a monthly basis, while phoxim TC, chlorpyrifos TC, profenofos TC and bifenthrin TC experienced price decrease.

Organophosphorus insecticides: Except for a price hike of malathion TC, the ex-works prices of phoxim TC, chlorpyrifos TC and profenofos TC decreased by 5.13%, 3.91% and 2.86% MoM, respectively. The price falls of phoxim TC and profenofos TC were mainly the result of fluctuations in raw material price. Malathion TC producer Huludao Lingyun Group Pesticides Chemical Co., Ltd. has suspended the line, but operation in Shandong Luba Chemical Co., Ltd. (Shandong Luba) has kept normal (its products were mainly for





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export in this period). For chlorpyrifos TC, the price dipped slightly from the early-Oct. level, since domestic demand was still weak. Chlorpyrifos products were mainly for export in this period. As regards its supply, Shandong Luba, Hubei Benxing Agrochemical Co., Ltd., Zhejiang Xinnong Chemical Co., Ltd. (Zhejiang Xinnong) and Jiangsu Fengshan Group Co., Ltd. have supplied normally (Zhejiang Xinnong's chlorpyrifos TC was mainly for export), yet Inner Mongolia Miraculous Crop Science Co., Ltd. and Chongqing Huage Biochemical Co., Ltd. have suspended production. It is expected the price of chlorpyrifos TC will keep stable in the short term.

Carbamate insecticides: Ex-works prices of methomyl TC and isoprocarb TC were stable on a monthly basis. The price of carbofuran TC increased by 2.04% MoM mainly because of rising raw material price. For methomyl TC, weak domestic demand may keep its price stable at this level.

Pyrethroid insecticides: Although the ex-works price of deltamethrin TC remained stable, the price of bifenthrin TC declined by 1.27% MoM, while the prices of lambda-cyhalothrin TC and cypermethrin TC recovered by 2.54% and 7.41% MoM, respectively, due to rising production costs under tight intermediate supply. Regarding the supply of lambda-cyhalothrin TC, Shandong Gaoxin Runnong Chemical Co., Ltd., Jiangsu Yangnong Chemical Co., Ltd., Guangdong Liwei Chemical Industry Co., Ltd. and Jiangsu Chunjiang Runtian Agrochemical Co., Ltd. have operated normally, but Jiangsu Changlong Agrochemical Co., Ltd. has suspended its line.

Nicotinoid insecticides: On a monthly basis, the prices of imidacloprid TC and acetamiprid TC edged up by 1.15% and 0.46%, respectively, mainly due to the rising price of raw material 2-chloro-5-(chloromethyl)pyridine (CCMP). Operating rate in imidacloprid TC producers varies: Shandong Sino-Agri United Biotechnology Co., Ltd. has operated its line at a high level; Wuzhong Linghang Biological & Pharmaceutical Co., Ltd. and Hebei Yetian Agrochemicals Co., Ltd. have operated at a low level; Anhui Huaxing Chemical Industry Co., Ltd., Jiangsu Kwin Group Co., Ltd., Jiangsu Jiannong Agrochemical Co., Ltd., Yancheng Limin Chemical Co., Ltd. and Yancheng Shuangning Agro-chemical Co., Ltd. have suspended their lines. Considering the upward trend of CCMP price, it is projected that small increase in the price of nicotinoid insecticides will continue.





Category	Product	Ex-works price (RMB/t)	Ex-works price (USD/t)	RMB MoM change
	90% Phoxim technical	37,000	5,153.99	-5.13%
Organanhaanharus inaastisida	95% Chlorpyrifos technical	36,900	5,140.06	-3.91%
Organophosphorus insecticide	90% Malathion technical	38,000	5,293.29	8.57%
	90% Profenofos technical	68,000	9,472.20	-2.86%
	98% Carbofuran technical	100,000	13,929.71	2.04%
Carbamate insecticide	98% Methomyl technical	73,900	10,294.06	0.00%
	98% Isoprocarb technical	45,500	6,338.02	0.00%
	97% Bifenthrin technical	156,000	21,730.35	-1.27%
Pyrethroid insecticide	95% Lambda-cyhalothrin technical	121,000	16,854.95	2.54%
r yreuniola msecuciae	94% Cypermethrin technical	58,000	8,079.23	7.41%
	98% Deltamethrin technical	385,000	53,629.39	0.00%
Nicotinoid insecticido	97% Imidacloprid technical	94,400	13,149.65	1.15%
Nicotinoid insecticide	95% Acetamiprid technical	84,500	11,770.61	0.46%

TABLE 2: Ex-works prices of major insecticide TC products in China in late Oct. 2023

Source:CCM





Company and supply

Dezhou New Power's diafenthiuron TC line on trial run

Summary: Dezhou New Power has put its newly-built diafenthiuron TC line into trial run by Oct. The company completed the construction of 8,500 t/a fine chemical production project (Phase I) and 1,000 t/a diafenthiuron TC project in mid-2023.

In Oct., CCM learned from Dezhou New Power Fine Chemical Co., Ltd. (Dezhou New Power) that it had completed the construction of 8,500 t/a fine chemical production project (Phase I) and 1,000 t/a diafenthiuron TC project in mid-2023, and the newly-built production lines were in trial run currently. The 8,500 t/a fine chemical production project (Phase I) involves the construction of lines of 500 t/a spirodiclofen TC, 300 t/a (2,6-diisopropyl-4-phenoxy-phenyl)thiourea and 200 t/a 2,6-diisopropyl-4-phenoxyphenyl isocyanate; of the two intermediates, the former is used to produce the latter, and the latter is then used in the production of diafenthiuron TC. For the 1,000 t/a diafenthiuron TC project, the company used existing workshop and installed the new diafenthiuron TC production equipment.

Besides the two projects, Dezhou New Power has also launched a 500 t/a indoxacarb TC project, which will build a new workshop for 500 t/a indoxacarb TC production capacity along with supporting facilities. All these industrial projects are aimed at implementing the overall development strategy of its parent company Shandong New Power Chemical Group Co., Ltd., which established the subsidiary in Nov. 2019 in the Chemical Industrial Park of Pingyuan Economic Development Zone, Pingyuan County, Dezhou City, Shandong Province.

Chlorantraniliprole TC capacity construction, next on Shandong Hengdong's agenda

Summary: As the construction of the phase I program of Shandong Hengdong's 48,000 t/a high-end and green chemical industrial project has progressed smoothly, the phase II program—including the building of 1,000 t/a chlorantraniliprole TC production capacity—is now high on the company's agenda. Moreover, in the future, the company will further construct 4,000 t/a chlorantraniliprole TC capacity and large-scale cyantraniliprole TC capacity in later phases.

In Oct., CCM learned from Shandong Hengdong Biotechnology Co., Ltd. (Shandong Hengdong) that it had put the construction of the phase II program of its 48,000 t/a high-end and green chemical industrial project high on the agenda. As per the company, it is actively preparing for all the necessary formalities to kick start the construction. In this phase, 1,000 t/a chlorantraniliprole TC production capacity will be built. Besides, it has planned another 4,000 t/a chlorantraniliprole TC capacity in later phases.

The 48,000 t/a high-end and green chemical project is a key industrial project Shandong Hengdong invested. The whole project will be built in the Chemical Industrial Park of Pingyuan Economic Development Zone, Pingyuan County, Dezhou City, Shandong Province. The park is a provincial-level accredited chemical park. Considering factors such as the company's development plan, market dynamics and the progress of production process design, the overall project has been divided into several phases. Details of products planned are as follows:

- Phase I: Building production lines of 5,000 t/a malathion TC, 5,000 t/a dimethoate TC, 1,000 t/a lufenuron TC, 500 t/a hexaflumuron TC and 500 t/a diflubenzuron TC. These lines are currently under construction;
- Phase II: Building production lines of 1,000 t/a chlorantraniliprole TC and 13,000 t/a glufosinate-P TC. As regards the glufosinate-P capacity, 3,000 t/a will serve sales purpose, while the rest 10,000 t/a will be reserved for the production of downstream formulation



products, with matching 24,626 t/a capacity for glufosinate-P 40% AS;

Later phases: Building production lines of 5,000 t/a diquat dibromide TC, 5,000 t/a diquat dichloride TC, 4,000 t/a chlorantraniliprole TC, 1,000 t/a fluopicolide TC, 1,500 t/a anilofos TC, 2,000 t/a pyroxasulfone TC, 1,500 t/a methyl 3-mercaptopropionate and 1,000 t/a benoxacor.

Shandong Hengdong was established in March 2022 and funded by Shandong Luba Chemical Co., Ltd. (Shandong Luba) and Shandong Luba's wholly-owned subsidiary Dezhou Luba Fine Chemical Co., Ltd. (Dezhou Luba), with Shandong Luba holding 60% equity in Shandong Hengdong and Dezhou Luba 40% equity. Shandong Hengdong mainly engages in pesticide business. It should be reminded that in July 2023, Shandong Hengdong acquired 51% equity of the pesticide enterprise Guangxi Jintudi Shengda Biotechnology Co., Ltd., which is located in the Qintang Industrial Park New Material Science and Technology Park, Guiguang City, Guangxi Zhuang Autonomous Region.

It can be seen that Shandong Hengdong has planned an overall 5,000 t/a chlorantraniliprole TC capacity, and thus the company is determined to join in the chlorantraniliprole rush in Chinese market. It is well known that chlorantraniliprole is currently the most coveted off-patent insecticide in China's pesticide market. A batch of Chinese pesticide enterprises have launched their chlorantraniliprole TC projects, and some have even built up the production lines and put them into operation by now. In the near future, more chlorantraniliprole TC capacity will turn active, and the supply of the product will expand quickly in China. As a result, competition in this market will become stiffer.

Apart from the chlorantraniliprole capacity, the company has also planned 1,000 t/a cyantraniliprole TC capacity. Cyantraniliprole, with a chemical structure highly resembling chlorantraniliprole, has many good properties. Both products were developed by E. I. du Pont de Nemours and Company, Inc. (DuPont), and the company built all-around patent portfolios for them. In 2017, DuPont's crop protection business (cyantraniliprole and chlorantraniliprole products included) was divested to FMC Corporation, so all the related patents concerning cyantraniliprole and chlorantraniliprole were transferred to the latter.

The core compound patent of cyantraniliprole will go off-patent from Jan., 2024 in China as well as in many countries and regions across the world. With the approaching expiry of the compound patent, the time for fast development of cyantraniliprole market is about to come in China. By then, however, domestic pesticide companies should avoid infringements of other cyantraniliprole patents still under protection in their pursuit of cyantraniliprole capacity.

Gansu Langma Qiyun completes 500 t/a bifenazate TC line construction

Summary: Gansu Langma Qiyun has finished the construction of 500 t/a bifenazate TC line, which not only helps serve the company's long-term development, but also is a piece of good news to the bifenazate market in China.

On 7 Oct., Gansu Langma Qiyun Technology Co., Ltd. (Gansu Langma Qiyun) revealed that its 500 t/a bifenazate TC production line and supporting facilities had passed completion-based environmental protection acceptance check. This bifenazate TC line completion will not only benefit the company's long-term development, but also have a positive effect on bifenazate supply in the Chinese pesticide market.

Gansu Langma Qiyun, founed in Jan. 2020, is located in the Lanzhou New Area Chemical Park, Lanzhou City, Gansu Province. Soon





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after the establishment, the company launched the 7,500 t/a pesticide TC and intermediate project in this chemical park. According to the project planning, Gansu Langma Qiyun will construct production lines of 2,000 t/a sulfentrazone TC, 1,500 t/a 2-chloro-N-cyclopropyl-4,5-difluorobenzamide, 1,000 t/a tebuconazole TC, 1,500 t/a 1-(4-chlorophenyl)-4,4-dimethyl-3-pentanone, 1,000 t/a 2-[2-(4-chlorophenyl)ethyl]-2-(1,1-dimethylethyl)-oxirane and 500 t/a bifenazate TC, along with supporting facilities. Of the planned products, 2-chloro-N-cyclopropyl-4,5-difluorobenzamide is an intermediate for the production of sulfentrazone TC, and 1-(4-chlorophenyl)-4,4-dimethyl-3-pentanone and 2-[2-(4-chlorophenyl)ethyl]-2-(1,1-dimethylethyl)-oxirane are intermediates for the production of tebuconazole TC. This time, the newly-accepted 500 t/a bifenazate TC is just a part of the 7,500 t/a project.

Bifenazate is a novel biphenyl hydrazine derivative insecticide used for mite control. Although it has some shortcomings, its broad mitecontrol spectrum, stable performance and persistence make it a good choice. It is well known that mite damage is a tough problem in crop cultivation worldwide. Bifenazate is effective in the control of multiple agricultural pest mites such as red spider mite, citrus rust mite, *Eotetranychus kankitus*, Brevipalpus mites, hawthorn spider mite, carmine spider mite and twospotted spider mite.

Although still a somewhat niche pesticide, bifenazate has attracted growing attention in China's pesticide industry with its product traits and increasing demand. New players have kept coming to the bifenazate TC market in China. Also in Oct. 2023, Henan Lvkang Biotechnology Co., Ltd. (Henan Lvkang) revealed that it had built up 600 t/a bifenazate TC production line and put it into trial run. Besides, earlier this year Yongnong BioSciences Co., Ltd. (Yongnong BioSciences) has thrown its 1,200 t/a bifenazate TC production line into normal operation.

In 2022, Yingde Greatchem Chemicals Co., Ltd. expanded its bifenazate TC capacity from 360 t/a to 750 t/a in its production plant in Yingde City of Guangdong Province. The same year, Shaoxing Shangyu Xinyinbang Biochemical Co., Ltd. launched a technological transformation project to expand its existing 250 t/a bifenazate TC capacity to 1,750 t/a in its production plant in Shaoxing City of Zhejiang Province. Their expansions, either achieved or still under construction, are made based on their development plan, confidence in the long-term prospect of bifenazate TC market, as well as plans announced by potential new competitors.

As the lines in Gansu Langma Qiyun, Henan Lvkang and Yongnong BioSciences have come or will soon come into operation, it is certain that the supply of bifenazate TC in the Chinese market will increase and a long-term positive effect is expected.



Policy

MARA calls for intensified pesticide administration efforts

Summary: In late Sept., the General Office of MARA issued a notice calling for effectively strengthening the supervision and administration of pesticides nationwide.

In late Sept., the General Office of the Ministry of Agriculture and Rural Affairs of the People's Republic of China (MARA) issued a notice calling for effectively strengthening the supervision and administration of pesticides nationwide, in order to maintain normal production and orderly operation of pesticide businesses, guard against pesticide safety risks and satisfy pesticide demand in agricultural production. The document requires:

Improving performance of duties in pesticide-related administrative examination and approval processes

- Concerning preliminary review of pesticide registration, focuses should be put on the authenticity, completeness, compliance and effectiveness of registration application materials, so as to avoid problems such as unsealed-up test samples, incomplete application materials, unqualified materials and inauthentic test data.
- Concerning pesticide production permitting, related industrial policies, and requirements on safety and environmental protection should be followed, and latest National Guiding Catalogue for Industrial Restructuring and the 14th Five-Year Plan for the Development of Pesticide Industry be consulted. Total number of pesticide manufacturers should be restricted, cross-region removal of pesticide plants be regulated, pesticide companies be led to grow stronger, and thus high-quality development of the pesticide industry could be promoted. Strict examination and approval should be implemented in the process, especially for the approval of products already with overcapacity; backward capacity should be eliminated step by step. Those zombie enterprises should be dealt with carefully and enterprises that manufacture and sell counterfeits be investigated and dealt with in accordance with the law. Moreover, pesticide industry distribution should be optimised, and new pesticide enterprises and new capacity be led to settle in chemical industrial parks.

Concerning pesticide business permitting, with the past five-year market regulation results taken into consideration, business units that are not in conformity with licensing conditions and that have counterfeit and/or shoddy pesticides selling records should be forced out of the market.

Strengthening pesticide market regulation

Agriculture and rural affairs departments at all levels should intensify supervision and inspection on pesticide manufacturers and pesticide business units (both physical and online), as issues like illegal production of pesticides and illegal business operation have been found in some places recently. Focuses should be put on checking whether the manufacturers and business operators (both physical and e-commerce) have complete licences, whether the pesticide products are qualified, whether the pesticide packaging and labels meet the related requirements, whether the purchase and sale accounts are full and accurate, whether prohibited, restricted and unregistered pesticides are sold illegally, etc.

Intensifying supervision and inspection on pesticide registration trial units

MARA will carry out unannounced inspections on pesticide registration trial units in due course. If there are serious problems with trial units, or there exists inaction or local protection practices in territorial regulatory agencies, such cases will be dealt with in accordance with the law and the related parties be publicly named.

Reinforcing efforts to guide the development of pesticide industry and provide related services



Planning and guidance on the development of pesticide industry should be reinforced. As the mid-stage review of the 14th Five-Year Plan for the Development of Pesticide Industry has been made, provincial governments should, based upon overall goals and key tasks set forth in the five-year plan, refine details in their implementation plans, properly arrange industrial layout, lead companies to grow bigger and stronger, and promote the implementation of this five-year plan in their jurisdictions. Production & sales message dispatching should be improved—staff should be specially-assigned by local governments to be responsible for dispatching such messages on a regular basis. Besides, pesticide production and supply should be guided based on crop pest & disease control needs, so as to avoid blind production, tight or interrupted supply, big price fluctuation, etc. Meanwhile, trainings for and guidance on pesticide manufacturers and business operators, as well as grass-root pesticide regulators should be beefed up. Local governments should keep abreast of difficulties encountered by such companies, and provide quality services of policy interpretation, information consultation and technical guidance.

Beefing up prevention against pesticide safety risks

- Concerning pesticide production: Governments should make good use of production permitting approval and onsite inspection, check the implementation situation of production safety measures, and urge the enterprises to take their entity responsibility for safe production.
- Concerning pesticide business operation: Governments should strictly implement designated distribution operation and real-name purchase for pesticides with restricted application. Besides, pesticide purchase and sale records and traceability management should be enforced thoroughly. Business operators are urged to verify the legality of the sources of the pesticides they purchased.
- Concerning pesticide application: Governments should increase trainings on pesticide use in a scientific and safe manner. Pesticide safety interval should be observed, and out-of-scope pesticide use, overdose and above-the-limit application frequency be prevented. Pesticide safety risk monitoring should be strengthened to guard against accidents like human and animal poisoning, harms to crops caused by pesticides, and pesticide pollutions. Illegal use of highly-toxic pesticides on crops including vegetables, fruits and tea, as well as the use of export-only pesticides (paraquat, for instance) in domestic market should be cracked down on, so as to ensure safe agricultural production and the quality of agricultural products.



Registration

289 Insecticide products approved of registration in Q1-Q3 2023

Summary: In the first three quarters of 2023, altogether 289 insecticide products were approved of pesticide registration in China, which include 10 TC products. SC is the most popular form of these products and the majority of them are of low toxicity.

As of 28 Sept., the Department of Agrochemical Management of the Ministry of Agriculture and Rural Affairs of the People's Republic of China (MARA) had approved registration of 289 insecticide products in the first three quarters of 2023. The great majority of the products are of low toxicity, and popular forms of formulation products are SC, WG and GR. Of these approved insecticide products, ten are TC products, with active ingredients covering chlorantraniliprole, teflubenzuron, metofluthrin, chlorfenapyr, acetamiprid and cyflumetofen.

In Q1–Q3 2023, altogether eleven registrants have at least five insecticide products approved of registration; of them, Hebei Veyong Biochemical Co., Ltd. (Hebei Veyong) ranks first with twelve insecticide products approved, and Shaanxi Topsen Biological Technology Co., Ltd. comes second with ten approved. It is worth noting that eleven of Hebei Veyong's approved insecticide products are export-only products, which accounts for nearly one third of the total 35 export-only insecticide products approved in this period; the second largest contributor is Shandong Weifang Rainbow Chemical Co., Ltd. with six export-only insecticides approved.

No.	Toxicity	Number
1	Low	210
2	Mild	50
3	Moderate	14
4	Low (TC: highly toxic)	10
5	Moderate (TC: highly toxic)	5
	Total	289

TABLE 3: Insecticide products approved of registration by toxicity, Q1–Q3 2023





No.	Form	Number
1	sc	152
2	WG	25
3	GR	23
4	EC	15
5	FS	13
6	тс	10
7	ME	10
8	SL	7
9	OD	7
10	EW	6
	Others	21
	Total	289

TABLE 4: Insecticide products approved of registration by form, Q1–Q3 2023





No.	Registrant	Number
1	Hebei Veyong Bio-chemical Co., Ltd.	12
2	Shaanxi Topsen Biological Technology Co., Ltd.	10
3	Shandong Weifang Rainbow Chemical Co., Ltd.	7
4	Guangdong Kefeng Bio-Technology Co., Ltd.	6
5	Jiangxi Bumper Biological Technology Co., Ltd.	5
6	Anyang Annuo Agrochemical Co., Ltd.	5
7	Shandong Zhongxin Kenong Bio-Technology Co., Ltd.	5
8	Shaanxi Meibang Pharmaceutical Group Co., Ltd.	5
9	Shaanxi Yitianfeng Crop Science and Technology Co., Ltd.	5
10	Hunan Xinchangshan Agricultural Development Co., Ltd.	5
11	Jiangsu Youjia Crop Protection Co., Ltd.	5

TABLE 5: Registrants with at least five insecticide products approved of registration, Q1–Q3 2023





No.	Registration No.	Registrant	Active ingredient & content	Toxicity
1	PD20230140	Qingdao Hengning Biotechnology Co., Ltd.	96% Chlorantraniliprole	Low
2	EX20230006	Shandong Weifang Rainbow Chemical Co., Ltd.	98% Teflubenzuron	Mild
3	WP20230008	Jiangsu Youjia Crop Protection Co., Ltd.	95% Metofluthrin	Moderate
4	EX20230026	20230026 Zhejiang Nanjiao Chemistry Co., Ltd. 98% Teflubenzuron		Mild
5	EX20230024	20230024 Jiangsu Flag Chemical Industry Co., Ltd. 97% Tel		Low
6	PD20230304	Hebei Brilliant Chemical Co., Ltd.	95.5% Chlorantraniliprole	Low
7	PD20230368	Inner Mongolia Laike Crop Protection Co., Ltd.	98% Chlorfenapyr	Moderate
8	EX20230086	Henan Jinpeng Chemical Co., Ltd.	98% Teflubenzuron	Mild
9	EX20230064	Shandong United Pesticide Industry Co., Ltd.	97% Acetamiprid	Moderate
10	PD20230544	Shandong Aokun Crop Science Co., Ltd.	98.5% Cyflumetofen	Low

 TABLE 6: Insecticide TC products approved of registration, Q1–Q3 2023



Pest

NATESC gives technical guiding opinions on wheat diseases & pests control in autumn & winter

Summary: On 10 Oct., NATESC released technical guiding opinions on the control of diseases & pests on wheat in autumn and winter 2023.

On 10 Oct., the National Agro-Tech Extension and Service Centre (NATESC) released technical guiding opinions on the control of diseases & pests on wheat in autumn and winter 2023, in order to win the battle against pests and better safeguard the harvest. In recent years, affected by changes made to tillage methods, climatic anomaly, etc., the occurrence of underground pests has become heavier. For the aim of doing a good job on prevention and control of wheat diseases & pests in autumn and winter period, autumn wheat seed dressing is a practice should be widely promoted, as it could not only guard against underground pests effectively, but also reduce damages caused by diseases & pests (aphids included) in autumn, and thus cut down pest population for infestation next year and relieve control pressures at the mid to late growth stage of wheat.

Control strategy

The principle of "focusing on prevention, integrating prevention and treatment measures" should be abided by in crop protection practices. The control strategy of "regional treatment and classified guidance" should be implemented. Measures such as pre-sowing soil preparation, use of resistant variety, seed coating, suitable late-sowing and up-to-standard control in autumn seedling stage should be taken in an all-round way to prevent and control seedborne and soilborne diseases, underground pests, and diseases & pests in seedling stage in the autumn and winter period, and thus lays a solid foundation for the year-round control of wheat diseases & pests.

Control target

Based on disease & pest occurrence characteristics in autumn and winter in different wheat growing areas, key control targets could be identified and control measures suitable for local conditions be given. Specifically,

- For wheat growing areas in Huang-Huai-Hai region: Key targets are wheat crown rot, wheat sheath blight, wheat common root rot, wheat powdery mildew, diseases caused by wheat yellow mosaic virus and cereal cyst nematodes, and pests like wheat aphids, wheat mites and underground pests;
- For wheat growing areas in the middle and lower reaches of the Yangtze River: Key targets are wheat sheath blight, wheat smut, and pests like wheat aphids, wheat mites and small brown planthoppers. Attention should also be paid to wheat crown rot;
- For wheat growing areas in North China: Key targets are wheat common root rot, wheat crown rot, wheat take-all, and pests like wheat aphids and wheat mites;
- For wheat growing areas in Northwest China: Key targets are wheat stripe rust, wheat powdery mildew, wheat yellow dwarf, Gerlachia leaf blight of wheat (in Xinjiang), and pests like wheat aphids and wheat mites;
- For wheat growing areas in Southwest China: Key targets are wheat stripe rust, and pests like wheat aphids and wheat mites.

Key control techniques

• Suitable late-sowing: Based on local occurrence characteristics of wheat crown rot, wheat sheath blight, wheat aphids, etc., as well as forecasted weather trends during autumn sowing period, sowing could be postponed to a more suitable time, to reduce prewinter infestations and damages caused by diseases & pests. Once the technique is adopted, more seeds should be sown relative to the days delayed, so as to guarantee the basic seedling number at a proper level.





- Seed coating and other seed dressing methods: Different pesticides should be used in seed dressing depending on local conditions and attackers. For areas with occurrence of underground pests and seedling aphids, imidacloprid, thiamethoxam, clothianidin, chlorpyrifos and phoxim are recommended. For areas with occurrence of multiple diseases combined with pests, fungicides and insecticides, or mixed formulations effective against the corresponding diseases & pests are recommended for use.
- Strengthened prevention and control of diseases & pests on autumn seedlings: As regards pests,
 - For areas with heavy occurrence of seedling aphids: On the basis of seed dressing as prevention, chemical insecticides such as pymetrozine, acetamiprid and pirimicarb, or biopesticides such as matrine and Metarhizium spp. are recommended. This could also help cut off the transmission routes of wheat yellow dwarf;
 - For areas with occurrence of wheat mites: Pesticides such as abamectin and bifenthrin are recommended for use.



Trade analysis

In July-Aug., China's insecticide formulation Exp. volume ups YoY, but Imp. volume drops

Summary: In July–Aug. 2023, China's insecticide formulations were mainly exported to Brazil, Thailand, Nigeria, etc.; the export volume increased by 7.27% YoY. However, the import volume of insecticide formulations to China in this period dove by 39.12% YoY. Main import origins were Japan, France, Australia, etc.

According to the statistics from General Administration of Customs of China (China Customs), in July–Aug. 2023, China exported 68,599 tonnes (actual volume, the same hereafter) of insecticide formulation products. Compared with the export volume achieved in July–Aug. 2022, this year's figure went up by 7.27%. As regards insecticide formulation imports, in the same period, China imported 564 tonnes of insecticide formulation products; the volume contracted by 39.12% YoY. The biggest import origin was Japan.

In terms of export, average export price during July–Aug. 2023 fell 23.87% YoY to USD4.93/kg. Major export destinations of China's insecticide formulations were Brazil, Thailand, Nigeria, etc. in the two months; Brazil topped the list with 14,186 tonnes, up 22.29% YoY.

In terms of import, import price of insecticide formulations averaged at USD24.53/kg during July–Aug. 2023, down 2.91% YoY. Main import origins were Japan, France, Australia, etc. About 35% of the insecticide formulation imports came from Japan in these two months, yet the volume declined to 200 tonnes from 241 tonnes in July–Aug. 2022, down 17.05% YoY. In contrast, the volume imported from France rose by 38.17% YoY, up from 104 tonnes to 143 tonnes.

Manth		2023	2022	
Month	Actual volume, kg	Average price, USD/kg	Actual volume, kg	Average price, USD/kg
July	34,775,109	4.88	34,647,528	6.14
Aug.	33,824,025	4.98	29,301,277	6.86
Total	68,599,134	4.93	63,948,805	6.47

TABLE 7: July and Aug. exports of insecticide formulations from China, 2023 vs 2022

Source: China Customs





Na	July–Aug. 2023			July–Aug. 2022		
No.	Destination	Actual volume, tonne	Share	Destination	Actual volume, tonne	Share
1	Brazil	14,186	20.68%	Brazil	11,600	18.14%
2	Thailand	4,558	6.64%	Nigeria	4,515	7.06%
3	Nigeria	3,499	5.10%	Thailand	3,662	5.73%
4	Indonesia	2,735	3.99%	Vietnam	3,002	4.69%
5	Chile	2,624	3.82%	Indonesia	2,890	4.52%
6	Bangladesh	2,385	3.48%	Myanmar	2,751	4.30%
7	Ghana	2,376	3.46%	Bangladesh	2,301	3.60%
8	Cote d'Ivoire	2,374	3.46%	The Philippines	1,933	3.02%
9	Myanmar	2,212	3.23%	Ghana	1,857	2.90%
10	Vietnam	2,164	3.15%	Australia	1,628	2.55%
	Others	29,486	42.98%	Others	27,807	43.48%
	Total	68,599	100.00%	Total	63,949	100.00%

TABLE 8: Major destinations of insecticide formulations exported from China, July–Aug. 2023 vs July–Aug. 2022

Note:Due to rounding, the total may not equal 100.00%. Source:China Customs

Month	2023		2022	
Monun	Actual volume, kg	Average price, USD/kg	Actual volume, kg	Average price, USD/kg
July	300,186	27.21	496,840	24.75
Aug.	264,083	21.49	430,050	25.87
Total	564,269	24.53	926,890	25.27

Source:China Customs





No.	July–Aug. 2023			July-Aug. 2022		
	Origin	Actual volume, tonne	Share	Origin	Actual volume, tonne	Share
1	Japan	200	35.47%	Japan	241	26.03%
2	France	143	25.37%	The US	231	24.96%
3	Australia	76	13.43%	Indonesia	138	14.93%
4	India	41	7.23%	France	104	11.18%
5	Singapore	27	4.84%	South Korea	50	5.36%
6	Indonesia	21	3.66%	Switzerland	40	4.32%
7	Vietnam	15	2.73%	Belgium	28	2.97%
8	The US	15	2.66%	Singapore	26	2.82%
9	South Korea	14	2.53%	Israel	20	2.14%
10	Thailand	7	1.27%	India	17	1.78%
	Others	5	0.82%	Others	33	3.52%
	Total	564	100.00%	Total	927	100.00%

TABLE 10: Major origins of insecticide formulations imported to China, July–Aug. 2023 vs July–Aug. 2022

Note:Due to rounding, the total may not equal 100.00%. Source:China Customs



Brief news

Jiangxi Lianbai plans to build 1,500 t/a chlorfenapyr capacity

On 26 Sept., the environmental impact report of Jiangxi Lianbai Technology Co., Ltd. (Jiangxi Lianbai)'s 1,500 t/a azoxystrobin and 1,500 t/a chlorfenapyr technological transformation project was released by local government. With the project, Jiangxi Lianbai will:

- Extend downstream to have 1,500 t/a azoxystrobin capacity on the basis of its existing 1,500 t/a methyl (E)-2-[2-(6-chloropyrimidin-4-yloxy)phenyl]-3-methoxyacrylate production line. This could be achieved by adding a production step, and no change will be made to the original principal process;
- Re-purpose and transform its 1,500 t/a 2,6-difluorobenzamide line (yet to put into use) to construct 1,500 t/a chlorfenapyr line;
- Adopt a process for comprehensive recovery of by-products such as acetic acid, trisodium phosphate and sodium chloride.

Shandong Kunda plans to build 5kt/a 2,3-dichloropyridine capacity expansion project

In late Sept., Shandong Kunda Biotechnology Co., Ltd. (Shandong Kunda) released basic environmental impact assessment information of the 5,000 t/a 2,3-dichloropyridine capacity expansion project. Already boasting 5,000 t/a 2,3-dichloropyridine production facilities at present, the company will have another 5,000 t/a 2,3-dichloropyridine capacity and 350 t/a 2,6-dichloropyridine capacity once this new project is completed. The project, which is planned to be built in the Yishui Economic Development Zone, Linyi City, Shandong Province, will help Shandong Kunda to strengthen its competitiveness in pyridine deep-processing sector.

Chemical park accreditation work basically finished in China

On 26 Sept., it was learned from the Chemical Park Industry Chain (Industry Cluster) High-Quality Development Conference held in Qingdao City of Shandong Province that chemical park accreditation work was basically finished in China. As of Aug. 2023, 29 provinciallevel governments (including Xinjiang Production and Construction Corps) had altogether accredited 586 chemical industrial parks (including parks still under rectification). With these accreditation efforts, the overall quality of chemical parks in China has had an obvious increase. Over 200 former chemical parks have been regarded as unqualified for featuring chemical industry. Moreover, scattered distribution trend of such parks has been curbed. Assessments made by emergency management departments in accordance with the Guiding Rules for Identifying and Controlling Safety Risks in Chemical Industrial Parks (Trial) show that of the 586 accredited parks, 580 parks are rated at C-level (with average risks, scoring 70 to 84 points) or D-level (with low risks, scoring 85 points and above), which means safety and environmental protection risks in chemical parks have been reduced significantly in China.

Jiangsu Trustchem obtains EU technical equivalence registration for methoxyfenozide

On 4 Oct., it was learned that Jiangsu Trustchem Co., Ltd. (Jiangsu Trustchem) had obtained the EU technical equivalence registration for methoxyfenozide. Besides, the company so far has had such kind of registration for three other active ingredients: imazamox, pinoxaden and imazalil. Currently, it also has active ingredients such as MCPA and prothioconazole under the EU technical equivalence assessment.

Methoxyfenozide is mainly used in the control of lepidopteran pests on vegetables (melon and solanaceous vegetables), fruits (apple, grape, kiwi fruit), walnut, beet, flowers, tea plants, rice, maize, cotton, sorghum, soybean, etc. It is especially effective on larvae and eggs.

MEE releases draft action plan to reduce air pollution in autumn & winter





In late Sept., the Ministry of Ecology and Environment of the People's Republic of China (MEE) published the Action Plan for Comprehensively Addressing Air Pollution in Beijing-Tianjin-Hebei Area and Surrounding Places, and in Fen-Wei Plain in Autumn and Winter 2023–2024 (Exposure Draft). The document is planned to be implemented in dozens of cities in the mentioned regions, and chemical enterprises in some major chemical production provinces (Shandong, Henan, Hebei and Shanxi) would come into restricted production or suspension in the autumn and winter 2023–2024, which starts from 1 Oct., 2023 and ends on 31 March, 2024. According to the action plan, before the end of Dec. 2023:

- At least 50 million t/a capacity in the iron and steel industry in the cities covered will have undergone whole-process, ultra-low emission retrofitting, and the completion publicly announced.
- In Shanxi Province, coke ovens with a coking chamber height of less than 4.3 metres will have been shut down; in Shaanxi Province, a plan for the elimination of such coke ovens will have been worked out. Concentrated capacity elimination will take place in Q4 2023.

Chlorpyrifos recommended to be listed in Rotterdam Convention Annex III

In Oct., the 19th meeting of the Chemical Review Committee (CRC-19) of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade was held at the headquarters of the Food and Agriculture Organisation of the United Nations (FAO) in Rome, Italy. At the meeting, the Committee reviewed notifications of final regulatory action on bromacil, carbaryl, chlorfenvinphos, chlorpyrifos, diarsenic pentoxide, ethion, mercury, methidathion and thiodicarb, and believed that the notifications on bromacil, chlorpyrifos, diarsenic pentaoxide and mercury met the criteria set out in Annex II to the Convention. Having at least two notifications for chlorpyrifos and mercury from two different Prior Informed Consent (PIC) regions meeting the criteria, the Committee recommended listing the two chemicals in Annex III to the Convention. The CRC experts will start developing draft decision guidance documents to accompany the recommendations on these chemicals to be considered by the Convention's governing body, the Conference of the Parties. Besides, the notifications of final regulatory action on carbaryl, chlorfenvinphos, ethion, methidathion and thiodicarb will be further reviewed at the 20th meeting.

Annex III to the Rotterdam Convention is a key part of the Convention and contains a list of hazardous chemicals and pesticides that are regulated under the Convention. Chemicals listed in Annex III are those have been reviewed and determined by the Parties to the Convention to be in need of control. Once a chemical or pesticide is listed in Annex III, it is then subject to the Convention's PIC procedure. This means that before the chemical or pesticide can be traded across borders, the exporting country must provide detailed information about its nature and risks to the importing country. The importing country, upon receipt of this information, can decide whether or not to consent to the importation of the chemical or pesticide in accordance with its own domestic laws and policies.

Three listed pesticide enterprises reports YoY decreases in Q1–Q3 2023

In late Oct., Jiangsu Yangnong Chemical Co., Ltd. (Jiangsu Yangnong), Jiangsu Flag Chemical Industry Co., Ltd. (FLAGCHEM) and Sichuan Hebang Biotechnology Co., Ltd. (Sichuan Hebang) released their third quarter reports 2023. All the three companies reported YoY decline in performance in the first three quarters this year, as sales and price of pesticides decreased under economic slowdown both at home and abroad. Specifically, in the reporting period:

• Jiangsu Yangnong: Its revenue dropped by 29.22% YoY and the net profit attributable to equity holders of the listed company decreased by 16.94% YoY;





- FLAGCHEM: Its revenue slipped by 8.55% YoY and the net profit attributable to equity holders of the listed company dove 32.22% YoY;
- Sichuan Hebang: Its revenue plunged 38.68% YoY and the net profit attributable to equity holders of the listed company plummeted 70.27% YoY.

Chlorfenapyr TC price remains high for months under tight supply

The ex-works price of chlorfenapyr TC in China has been on the rise in H2 2023. In Oct., the tight supply of chlorfenapyr TC continued, and thus its price remained at a high level. This month, although Kaifeng Biocaro Biochemical Co., Ltd.'s line was in active production, the output was small and mainly for self-use; Shandong Weifang Shuangxing Agrochemical Co., Ltd.'s small output was mainly for export; the supply of Shandong Hailir Chemicals Co., Ltd.'s chlorfenapyr TC was also short, and its long-term customers overseas were first in line for the supplies.



FIGURE 1: Monthly ex-works price of chlorfenapyr technical in China, June-Oct. 2023

Source:CCM

Ningxia launches month-long risks & hidden dangers rectification in chemical companies & parks

On 25 Oct., government of Ningxia Hui Autonomous Region held a video conference to mobilise related officials and arrange the work for all-round investigation and rectification of major risks and hidden dangers in the processes of equipment maintenance, overhaul, special operations, etc. in companies and chemical parks having contact with hazardous chemicals. From that date onwards, a month-long investigation and rectification campaign kicked off in Ningxia, and the target groups include producers, operators (warehousing service included) and licensed users of hazardous chemicals, chemical enterprises that are not required to obtain a permit for business operation of hazardous chemicals, and all the chemical industrial parks and concentration zones in the region.

Major insecticide producers based in Ningxia include Ningxia Taiyicin Biotech Co., Ltd., Ningxia Yongnong BioSciences Co., Ltd., Ningxia Wynca Technology Co., Ltd., Ningxia Yifan Biotechnology Co., Ltd. and Ningxia Soochow Agrochemical Co., Ltd.





Sinochem Yangnong Huludao fine chemical project under construction at full speed

Sinochem Yangnong Huludao large-scale fine chemical project has been constructed at full speed in Oct. In mid-Sept., main buildings of the project had the roofs sealed one after another and then equipment installation began. The project is a key project in the effort to foster a trillion RMB-generating petrochemical and fine chemical industrial base in Liaoning Province, as well as a backbone industrial project in the effort to build a 100 billion RMB-generating basic chemical and fine chemical industrial cluster in Huludao City of Liaoning Province.

Once completed, the project will deliver 15,650 t/a capacity for pesticides TC and 7,000 t/a capacity for pesticide intermediates. It is known that with the project, Jiangsu Yangnong Chemical Co., Ltd. (Jiangsu Yangnong) will build a pesticide production base and an advanced manufacturing plant in northern China. In the future, the plant will also adopt new technological achievements developed by Jiangsu Yangnong and the Syngenta Group, and set an example of the transformation and upgrading in China's crop protection industry.



Price update

Ex-works prices of major insecticides in China, 8 Oct., 2023

TABLE 11: Ex-works prices of major insecticides in China, 8 Oct., 2023

Broduct	20230908		20231008	
Product	Original Price (RMB/t)	Price (USD/t)	Original Price (RMB/t)	Price (USD/t)
95% Abamectin technical	388,000	54,048.03	380,000	52,932.9
97% Acephate technical	43,000	5,989.86	43,000	5,989.78
95% Acetamiprid technical	83,800	11,673.26	84,300	11,742.75
95% Azocyclotin technical	220,000	30,645.79	220,000	30,645.36
95% Beta-Cypermethrin technical	127,000	17,690.98	127,000	17,690.73
97% Bifenthrin technical	158,000	22,009.25	158,000	22,008.94
95% Buprofezin technical	65,000	9,054.44	65,000	9,054.31
98% Carbofuran technical	98,000	13,651.31	98,000	13,651.12
98% Chlorfenapyr technical	170,000	23,680.84	170,000	23,680.51
95% Chlorfluazuron technical	380,000	52,933.64	380,000	52,932.9
95% Chlorpyrifos technical	38,600	5,376.94	37,000	5,153.99
94% Cypermethrin technical	54,000	7,522.15	54,000	7,522.04
99% Cyromazine technical	125,000	17,412.38	123,000	17,133.54
98% Deltamethrin technical	385,000	53,630.13	385,000	53,629.39
95% Diafenthiuron technical	112,000	15,601.49	112,000	15,601.28
98% Dimethoate technical	46,600	6,491.34	46,600	6,491.25
70% Emamectin benzoate technical	367,500	51,192.4	367,500	51,191.69
92% Fenvalerate technical	145,000	20,198.36	145,000	20,198.08
95% Fipronil technical	430,000	59,898.59	430,000	59,897.76
98% Hexaflumuron technical	450,000	62,684.57	450,000	62,683.7



97% Imidacloprid technical	92,000	12,815.51	93,900	13,080
98% Isoprocarb technical	45,500	6,338.11	45,500	6,338.02
95% Lambda-cyhalothrin technical	118,000	16,437.29	115,000	16,019.17
90% Malathion technical	38,000	5,293.36	35,000	4,875.4
95% Methidathion technical	90,000	12,536.91	90,000	12,536.74
90% Methomyl SP	65,000	9,054.44	68,300	9,513.99
98% Methomyl technical	73,900	10,294.2	78,000	10,865.17
75% Omethoate technical	52,000	7,243.55	52,000	7,243.45
90% Phoxim technical	39,000	5,432.66	39,000	5,432.59
90% Profenofos technical	74,000	10,308.13	68,000	9,472.2
90% Propargite technical	60,000	8,357.94	60,000	8,357.83
95% Pymetrozine technical	112,500	15,671.14	112,500	15,670.92
95% Pyridaben technical	98,000	13,651.31	98,000	13,651.12
97% Spirodiclofen technical	142,000	19,780.46	139,000	19,362.3
85% Triazophos technical	69,000	9,611.63	69,000	9,611.5

Note:Ex-works price includes VAT. Source:CCM

Shanghai Port prices of major insecticides in China, 8 Oct., 2023





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TABLE 12: Shanghai Port	prices of major	r insecticides in Unina	a, 8 Oct, 2023

Product	20230908		20231008	
Product	Original Price (RMB/t)	Price (USD/t)	Original Price (RMB/t)	Price (USD/t)
95% Abamectin technical	388,500	54,117.68	380,500	53,002.55
97% Acephate technical	43,500	6,059.51	43,500	6,059.42
95% Acetamiprid technical	84,300	11,742.91	84,800	11,812.39
95% Azocyclotin technical	220,500	30,715.44	220,500	30,715.01
95% Beta-Cypermethrin technical	127,500	17,760.63	127,500	17,760.38
97% Bifenthrin technical	158,500	22,078.9	158,500	22,078.59
95% Buprofezin technical	65,500	9,124.09	65,500	9,123.96
98% Carbofuran technical	98,500	13,720.96	98,500	13,720.77
98% Chlorfenapyr technical	170,500	23,750.49	170,500	23,750.16
95% Chlorfluazuron technical	380,500	53,003.29	380,500	53,002.55
95% Chlorpyrifos technical	39,100	5,446.59	37,500	5,223.64
94% Cypermethrin technical	54,500	7,591.8	54,500	7,591.69
99% Cyromazine technical	125,500	17,482.03	123,500	17,203.19
98% Deltamethrin technical	385,500	53,699.78	385,500	53,699.03
95% Diafenthiuron technical	112,500	15,671.14	112,500	15,670.92
98% Dimethoate technical	47,100	6,560.99	47,100	6,560.89
70% Emamectin benzoate technical	368,000	51,262.05	368,000	51,261.34
92% Fenvalerate technical	145,500	20,268.01	145,500	20,267.73
95% Fipronil technical	430,500	59,968.24	430,500	59,967.4
98% Hexaflumuron technical	450,500	62,754.22	450,500	62,753.35
97% Imidacloprid technical	92,500	12,885.16	94,400	13,149.65
98% Isoprocarb technical	46,000	6,407.76	46,000	6,407.67



95% Lambda-cyhalothrin technical	118,500	16,506.94	115,500	16,088.82
90% Malathion technical	38,500	5,363.01	35,500	4,945.05
95% Methidathion technical	90,500	12,606.56	90,500	12,606.39
90% Methomyl SP	65,500	9,124.09	68,800	9,583.64
98% Methomyl technical	74,400	10,363.85	78,500	10,934.82
75% Omethoate technical	52,500	7,313.2	52,500	7,313.1
90% Phoxim technical	39,500	5,502.31	39,500	5,502.24
90% Profenofos technical	74,500	10,377.78	68,500	9,541.85
90% Propargite technical	60,500	8,427.59	60,500	8,427.47
95% Pymetrozine technical	113,000	15,740.79	113,000	15,740.57
95% Pyridaben technical	98,500	13,720.96	98,500	13,720.77
97% Spirodiclofen technical	142,500	19,850.11	139,500	19,431.95
85% Triazophos technical	69,500	9,681.28	69,500	9,681.15

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 Oct., 2023





Product	20230908	20231008
95% Abamectin technical	52,666.56	51,579.94
97% Acephate technical	5,734.25	5,734.17
95% Acetamiprid technical	11,447.16	11,515.3
95% Azocyclotin technical	29,982.8	29,982.38
95% Beta-Cypermethrin technical	16,715.29	16,715.05
97% Bifenthrin technical	20,737.33	20,737.05
95% Buprofezin technical	8,931.52	8,931.39
98% Carbofuran technical	13,401.41	13,401.23
98% Chlorfenapyr technical	23,145.82	23,145.5
95% Chlorfluazuron technical	51,604.27	51,603.55
95% Chlorpyrifos technical	5,350.22	5,128.38
94% Cypermethrin technical	7,154.01	7,153.91
99% Cyromazine technical	16,452.82	16,189.35
98% Deltamethrin technical	50,415.17	50,414.47
95% Diafenthiuron technical	14,757.53	14,757.32
98% Dimethoate technical	6,233.77	6,233.69
70% Emamectin benzoate technical	49,889.63	49,888.93
92% Fenvalerate technical	19,105.73	19,105.46
95% Fipronil technical	58,364.82	58,364.01
98% Hexaflumuron technical	61,092.2	61,091.35
97% Imidacloprid technical	12,563.42	12,822.7
98% Isoprocarb technical	6,093.14	6,093.05
95% Lambda-cyhalothrin technical	15,513.23	15,118.61

TABLE 13: FOB Shanghai prices of major insecticides in China, 8 Oct., 2023, USD/t



ССМ		
90% Malathion technical	5,113.11	4,709.38
95% Methidathion technical	12,339.52	12,339.35
90% Methomyl SP	8,934.93	9,388.42
98% Methomyl technical	11,048.25	11,661.05
75% Omethoate technical	6,944.22	6,944.12
90% Phoxim technical	5,376.98	5,376.9
90% Profenofos technical	9,799.65	9,004.96
90% Propargite technical	8,275.56	8,275.45
95% Pymetrozine technical	14,828.14	14,827.94
95% Pyridaben technical	13,413.4	13,413.21
97% Spirodiclofen technical	18,686.17	18,291.14
85% Triazophos technical	9,519.78	9,519.64

Note:FOB price is calculated mainly based on ex-works price, tax refund, value added tax rate, exchange rate, etc. Source:CCM



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