

Insecticides China News 202106

Issue 6 June 30 2021





Contents

Headline	2
Editor's Note	5
Company dynamics	6
Fengshan Group to form production capacity of pesticide intermediates.....	6
2 wholly-owned subsidiaries of Lianhetech to merge.....	8
Huludao Lingyun to form production capacities of thiamethoxam TC and dinotefuran TC.....	8
Market analysis	11
Most insecticide TC prices grow in June.....	11
Low operating rates of imidacloprid TC and acetamiprid TC producers in June.....	12
Price of bifenthrin TC grows in June due to continual supply shortage.....	13
Chinese ex-works price of pymetrozine TC further decreases in June.....	14
Price of insecticide TC products in China, H1 2021.....	15
Registration	17
151 insecticides registered in 2021 in China, by end-June.....	17
Policy	29
Guidance on environmental access threshold for chemical API, pesticide and dye industries of Ningxia issued.....	29
Pest	31
Northward migration of spodoptera frugiperda peaks from end-May to end-June.....	31
Import and Export	32
China's export of chlorpyrifos to main destinations from Jan. to April 2021.....	32
News in Brief	38
MOEE to curb pell-mell development of energy-intensive and high-emission projects.....	38
Grand Holding to make Grand Plant Protection platform company in biopesticide sector.....	38
Research breakthrough: new infrared light can help improve effective utilization of pesticide.....	38
Syngenta may be listed on STAR market of SSE at end of 2021.....	38
MOA to eliminate 10 high-toxic pesticides by stages and groups.....	39
Fengshan Group signs cooperation agreement with Guizhou University.....	39
Number of pesticides used to treat spodoptera frugiperda increased to 7 in China.....	39
MOA starts 3-year action to crack down on illegal pesticides and control pesticide residue.....	40
Hailir initiates safety management transformation project.....	40
Bio-control technology - "combating pests with pests" invented by entrepreneur team.....	40
Price Update	41
Ex-works prices of major insecticides in China, 8 June, 2021.....	41
Shanghai Port prices of major insecticides in China, 8 June, 2021.....	43
FOB Shanghai prices of major insecticides in China, 8 June, 2021.....	45





Headline

Fengshan Group plans to form the production capacities of 9 pesticide intermediate such as 2-nitro-4-methylsulfonylbenzoic acid, 1,3-cyclohexanedione, 4-chloro-3,5-dinitrobenzotrifluoride, 2,4-dichloro-3,5-dinitrobenzotrifluoride, 2-chloronicotinic acid, 2-amino-4,6-dimethoxypyrimidine, (R)-(+)-2-(4-Hydroxyphenoxy)propionic acid, methyl (R)-2-(4-hydroxyphenoxy)propionate and ethyl (2R)-2-(4-hydroxyphenoxy)propanoate. Adding the production capacity of pesticide intermediate will make Fengshan Group's production plan more flexible and controllable, thus increasing the company's ability in order delivery and stability of product quality.

According to Lianhetech, its subsidiary Lianhe Chemical will absorb another subsidiary Lianhetech Yancheng. This may be a result of the rectification plan of chemical industry issued by Jiangsu Province. The absorption is good for Lianhetech to integrate resources, reduce management cost, optimize structure, increase operating efficiency and improve business capability.

Huludao Lingyun plans to build the production capacities of 1,000 t/a thiamethoxam TC, 900 t/a dinotefuran TC and 300 t/a pyraclostrobin TC. Currently, the production capacities of thiamethoxam TC and pyraclostrobin TC in China are being expanded. But in contrast, the overall supply of dinotefuran TC in China remains to be improved. Therefore, the 900 t/a dinotefuran TC capacity to be built by Huludao Lingyun will be of great significance to the product's development in China.

Most insecticide TC prices went up with a few of them down in June. Overall price of organic phosphorous insecticide decreased slightly. Price of pyrethroid insecticide remained strong due to tight supply, despite sluggish downstream demand. Most of nicotinamide insecticides had experienced price growth. Imidacloprid TC in particular, its price increased significantly because of supply shortage.

The operating rates of imidacloprid TC and acetamiprid TC producers in China were relatively low in June, because of supply shortage of raw materials. Additionally, the wait-and-see attitude in downstream purchasing agents resulted in the low operating rate to some extent. It is expected that the operating rates will not be raised up in the short term.

The ex-works price of bifenthrin TC picked up in June, after decreased for months. Major reason for the high price of bifenthrin TC in H1 of 2021 was supply shortage. Domestic producers of bifenthrin TC are now faced with pressures from cost, production safety and environmental protection. Therefore, the supply tightness is estimated to continue in the short term.

The ex-works price of pymetrozine TC in June further decreased, due to weakening downstream demand. And that's why the operating rate of major pymetrozine TC producers remained relatively low, which is good for the bounceback of the price in the future. Besides, the increasing price of raw materials later may push up the price of pymetrozine TC.

Looking back on the overall price of insecticide TC products in China in H1 of 2021, it went up at first and down later. Some products have seen their price picking up at present. It is estimated that the ex-works price of insecticide TC products in Q3 will grow a bit as a whole.

By end-June, there have been 151 new registrations of insecticides in China, 4 among which are TC products and the rest are formulations. Compound formulation takes the lead in formulation products with the number of 94. As for





ingredients, clothianidin has most registrations followed by avermectin and thiamethoxam. Most of these 151 insecticides are of low toxicity.

On 27 May, the Ecology and Environment Department of Ningxia Hui Autonomous Region issued the Guidance on Environmental Access Threshold for Chemical API, Pesticide and Dye Industries of Ningxia Hui Autonomous Region (the Guidance). It is reported that the Guidance set environmental requirements for construction projects of chemical API, pesticide and dye industries in the following 5 respects such as location and overall planning, level of technical facilities, pollution disposal measures, total quantity control and clean production and environmental management and threshold. Also, requirements for technical facilities and techniques of the 3 industries mentioned above are put forward. As for pesticides, a wide range of pesticide products are covered by the Guidance. Besides, introduction of advanced design ideas, production techniques and management system from home or abroad is encouraged. The production techniques and facilities that are good for energy-saving, emission-reducing, diffidence of sewage and decrease of unorganized emission should be chosen. Level of production facilities of all technical units should be greatly improved.

The NATESC held a conference on occurrence trends of pests and diseases on early rice and *spodoptera frugiperda* of 2021 at the end of May. Forecast technicians from 13 provinces south of the Yangtze River and experts from the Chinese Academy of Sciences, Institute of Plant Protection, Nanjing Agricultural University, South China Agricultural University and National Meteorological Centre attended the conference. Wang Fuxiang, deputy director of the NATESC, and Qiu Xiaohua, senior inspector of the Agriculture and Rural Department of Guangdong Province attended and delivered speeches. It was said on the conference that pests and diseases on early rice would be at middle level as a whole in 2021.

According to the import and export data sourced from Tranalysis, from Jan. to April 2021, China exported 3,914.11 tonnes (actual volume) or 3,398.27 tonnes (100% AI volume) of chlorpyrifos to 22 main destinations including Pakistan, Indonesia, Peru, the US and Mexico.







Editor's Note

2021 is half way through. Looking back on the overall price of insecticide TC products in China in H1 of 2021, it went up at first and down later. Notably, the slack season for pesticide industry has arrived at the end of May. However, the prices of some insecticide TC products still picked up in June. As a matter of fact, the purchase enthusiasm in the downstream has reduced and demand has turned slack.

As for company dynamic, Fengshan Group plans to form production capacity of pesticide intermediates; 2 wholly-owned subsidiaries of Lianhetech will merge; Huludao Lingyun plans to build the production capacities of 1,000 t/a thiamethoxam TC, 900 t/a dinotefuran TC and 300 t/a pyraclostrobin TC.

As for pests, the northward migration of *spodoptera frugiperda* peaked from end-May to end-June. According to the prediction made by experts, pests and diseases on early rice will be at middle level as a whole in 2021, with 246 million mu of areas affected, less than last year. And experts required observers should clearly understand the importance of monitoring and forecasting to national food security.

As for policy dynamic, the Ecology and Environment Department of Ningxia Hui Autonomous Region issued the Guidance on Environmental Access Threshold for Chemical API, Pesticide and Dye Industries of Ningxia Hui Autonomous Region. Besides, in June, many local governments have started to forbid or stop transport of hazardous materials (HAZMAT). For example, Beijing forbids transportation of hazardous chemicals across the city from 20 June to 2 July. Shanghai also bans unnecessary transport of HAZMAT. Other provinces and cities have done the same.





Company dynamics

Fengshan Group to form production capacity of pesticide intermediates

Summary: Fengshan Group plans to form the production capacities of 9 pesticide intermediate such as 2-nitro-4-methylsulfonylbenzoic acid, 1,3-cyclohexanedione, 4-chloro-3,5-dinitrobenzotrifluoride, 2,4-dichloro-3,5-dinitrobenzotrifluoride, 2-chloronicotinic acid, 2-amino-4,6-dimethoxypyrimidine, (R)-(+)-2-(4-Hydroxy Phenoxy)propionic acid, methyl (R)-2-(4-hydroxyphenoxy)propionate and ethyl (2R)-2-(4-hydroxyphenoxy)propanoate. Adding the production capacity of pesticide intermediate will make Fengshan Group's production plan more flexible and controllable, thus increasing the company's ability in order delivery and stability of product quality.

In early-June, Fengshan Group Co., Ltd. (Fengshan Group) introduced the product schemes of the project of fine chemicals such as 1,600 t/a 2-nitro-4-methylsulfonylbenzoic acid (hereinafter referred as to the fine chemical project A) and the project of fine chemicals such as 10,000 t/a 4-chloro-3,5-dinitrobenzotrifluoride (hereinafter referred to as the fine chemical project B) responsible by Sichuan Fengshan Biotechnology Co., Ltd. (Sichuan Fengshan), a subsidiary of Fengshan Group. 2 pesticide intermediates are engaged in the fine chemical project A such as 1,600 t/a 2-nitro-4-methylsulfonylbenzoic acid and 750 t/a 1,3-cyclohexanedione; and 7 engaged in the fine chemical project B such as 10,000 t/a 4-chloro-3,5-dinitrobenzotrifluoride, 2,000 t/a 2,4-dichloro-3,5-dinitrobenzotrifluoride, 2,000 t/a 2-chloronicotinic acid, 1,000 t/a 2-amino-4,6-dimethoxypyrimidine, 3,000 t/a (R)-(+)-2-(4-Hydroxy Phenoxy)propionic acid, 1,000 t/a methyl (R)-2-(4-hydroxyphenoxy)propionate and 1,000 t/a ethyl (2R)-2-(4-hydroxyphenoxy)propanoate.

Fengshan Group is one of the key pesticide producers in China, with its production and operation scales at the forefront. As for production scale, Fengshan Group has had production capacities of pesticide TC and formulation products in its headquarters located in Dafenggang Petrochemical Industrial Park, Yancheng City, Jiangsu Province, but most of basic raw materials and pesticide intermediates are outsourced.

To be more detailed, by mid-June, Fengshan Group had put the line of 6,000 t/a trifluralin TC, 1,300 t/a quizalofop-P-ethyl TC, 1,200 t/a nicosulfuron TC, 11,000 t/a chlorpyrifos TC and 20,000 t/a pesticide formulation in its headquarters into production. And the newly-built production facilities of 700 t/a cyhalofop-butyl TC and 300 t/a clodinafop-propargyl TC were put into trial run on 30 Jan., 2021.

Pesticide intermediate is classified as fine chemical, and a key raw material to produce pesticides. High-quality and low-cost production of pesticide intermediate guarantees the development of pesticides.

Fengshan Group said that it spent most in outsourcing basic raw material and intermediates, the supply of some of which are restricted due to environmental factor and production capacity of upstream petrochemical industry.





Besides, the seasonal change in demand for pesticide formulation leads to the supply shortage or surged price of some intermediates, having impact on the company's business. Therefore, the company decided to form production capacity of pesticide intermediate to expand the advantage of industrial chain.

The insufficient areas in its headquarters and the difficulties to gain administrative approval to build pesticide intermediate project in its headquarters restricted Fengshan Group's move to form production capacity of pesticide intermediate. That's why Fengshan Group established Sichuan Fengshan in Xinqiao Park, Guang'an Economic and Technological Development Zone, Sichuan Province and made Sichuan Fengshan responsible for building a new production plant there. The fine chemical project A and fine chemical project B are both key projects in accordance with Fengshan Group's strategic development plan of pesticide intermediate.

2 pesticide intermediates are engaged in the fine chemical project A, such as 1,600 t/a 2-nitro-4-methylsulfonylbenzoic acid and 750 t/a 1,3-cyclohexanedione. Both of them are conducive to the production of mesotrione TC.

7 pesticide intermediates are engaged in the fine chemical project B, such as such as 10,000 t/a 4-chloro-3,5-dinitrobenzotrifluoride, 2,000 t/a 2,4-dichloro-3,5-dinitrobenzotrifluoride, 2,000 t/a 2-chloronicotinic acid, 1,000 t/a 2-amino-4,6-dimethoxypyrimidine, 3,000 t/a (R)-(+)-2-(4-Hydroxy Phenoxy)propionic acid, 1,000 t/a methyl (R)-2-(4-hydroxyphenoxy)propionate and 1,000 t/a ethyl (2R)-2-(4-hydroxyphenoxy)propanoate. 4-Chloro-3,5-dinitrobenzotrifluoride and 2,4-dichloro-3,5-dinitrobenzotrifluoride are both significant intermediates for the productions of trifluralin TC and prodiamine TC; 2-chloronicotinic acid is used to produce nicosulfuron TC and diflufenican TC; and (R)-(+)-2-(4-Hydroxy Phenoxy)propionic acid is an important raw material for quizalofop-P-ethyl and clodinafop-propargyl TC.

Besides these 2 projects, Sichuan Fengshan has planned to launch a pesticide TC project to build the production capacities of 12,000 t/a trifluralin TC, 800 t/a prodiamine TC and 2,000 t/a mesotrione TC. In addition to meet the production demand of pesticide TC, the rest pesticide intermediates involved in Sichuan Fengshan's projects will be for sale.

Adding the production capacity of pesticide intermediate will make Fengshan Group's production plan more flexible and controllable, thus increasing the company's ability in order delivery, stability of product quality and core competitiveness.

Notably, the headquarters of Fengshan Group had once suspended due to "3.21 explosion" and the maintenance of the heat supply company in the park from 18 April, 2019 to 25 Oct., 2019. Therefore, the production capacities to be formed in the new production plant ran by Sichuan Fengshan will be good for Fengshan Group to spread risk and





reduce impact from the suspension if accidents happen in the places where one of its production plant located.

2 wholly-owned subsidiaries of Lianhetech to merge

Summary: According to Lianhetech, its subsidiary Lianhe Chemical will absorb another subsidiary Lianhetech Yancheng. This may be a result of the rectification plan of chemical industry issued by Jiangsu Province. The absorption is good for Lianhetech to integrate resources, reduce management cost, optimize structure, increase operating efficiency and improve business capability.

On 14 June, Lianhetech released a notice of the merge of its 2 wholly-owned subsidiaries namely Jiangsu Lianhe Chemical Technology Co., Ltd. (Lianhe Chemical) and Lianhe Chemical Technology Co., Ltd. (Lianhetech Yancheng). All assets, liabilities and businesses of Lianhetech Yancheng will be absorbed by Lianhe Chemical. After completion, Lianhe Chemical will sustain and Lianhetech Yancheng will be deregistered.

By now, only a few companies in Xiangshui Chemical Park have resumed work, and many of them have moved out of the Park, which providing space for the merge of Lianhe Chemical and Lianhetech Yancheng. This may be a result of the rectification plan of chemical industry issued by Jiangsu Province. The 3.21 explosion happened in Xiangshui Tianjiayi Chemical Co., Ltd. at the afternoon on 21 March, 2019. After the accident, a rectification plan of chemical companies was issued by Jiangsu Province, in which it was specific that the number of chemical companies within the province would be reduced to 2,000 by 2020, and to less than 1,000 by 2022. Although adjustment was made later, the standards and schedule for shutdown of chemical companies were remained. That's why Lianhe Chemical and Lianhetech Yancheng had been suspended production for nearly 2 years. Before suspension, the actual production capacities of them made up about 30% of the total of Lianhetech. In 2018, the combined operating revenue of Lianhe Chemical and Lianhetech Yancheng accounted for 46.75% of Lianhetech's operating revenue. In Dec., 2020, Lianhe Chemical and Lianhetech Yancheng became the first companies in Xiangshui Chemical Park to resume production. 20 production lines of them have worked again, the revenue of which accounted for some 80% of the total. The rest production lines were still under maintenance.

Lianhetech said that the absorption is good for Lianhetech to integrate resources, reduce management cost, optimize structure, increase operating efficiency and improve business capability. As for insecticide production, Lianhe Chemical is a supplier of bifenthrin TC, which is under normal production now. The merge can help guarantee its stable production in the future.

Huludao Lingyun to form production capacities of thiamethoxam TC and dinotefuran TC

Summary: Huludao Lingyun plans to build the production capacities of 1,000 t/a thiamethoxam TC, 900 t/a dinotefuran TC and 300 t/a pyraclostrobin TC. Currently, the production capacities of thiamethoxam TC and pyraclostrobin TC in China are being expanded. But in contrast, the overall supply of dinotefuran TC in China remains to be improved. Therefore, the 900 t/a dinotefuran TC capacity to be built by Huludao Lingyun will be of great





significance to the product's development in China.

Huludao Lingyun Group Pesticide Chemical Co., Ltd. (Huludao Lingyun) announced on 6 June, 2021 that it would launch a 1,000 t/a thiamethoxam, 900 t/a dinotefuran and 300 t/a pyraclostrobin project to form corresponding production capacities such as 1,000 t/a thiamethoxam TC, 900 t/a dinotefuran TC and 300 t/a pyraclostrobin TC.

Notably, both these 3 TC products are R&D reserved products of Huludao Lingyun that have mastered the production techniques and obtained the registration certifications of them. The project signifies that Huludao Lingyun's previous R&D investment will be turned into a competitive "weapon" for market development, which will be good for strengthening the company's core competitiveness.

Huludao Lingyun is a long-established pesticide company located in Northeast China engaged in R&D, production and sales. Before relocating to the current plant in Beigang industrial Park, Huludao City, Liaoning Province, Huludao Lingyun's was situated in Taijitun Town, Nanpiao District, Huludao City. But the urbanization and the issuance of related policies about safety and environmental protection restricted the company's further development in the original plant. Therefore, Huludao Lingyun started its plan to construct a new plant in Beigang industrial Park, Huludao City, Liaoning Province and relocate to there in 2015.

Since then, Huludao Lingyun has put into production and capacities of 5,000 t/a ethyl chloride produced through cleaning method, 1,500 t/a malathion TC and 100 t/a thiamethoxam formulation.

The 1,000 t/a thiamethoxam, 900 t/a dinotefuran and 300 t/a pyraclostrobin project is the implementation of its long-term development plan. After completion, the production capacities of 1,000 t/a thiamethoxam TC, 900 t/a dinotefuran TC and 300 pyraclostrobin TC will be formed, which will become one of the major TC products of Huludao Lingyun. But the company still needs to go through administrative procedures to make sure that construction of the project can start as planned.

It is known that the investment in R&D of new chemical compounds from domestic pesticide companies is far less than foreign agrochemical giants. Therefore, most of domestic pesticides companies now are producers of generic pesticides and the pesticides with expired or to-be-expired patents from foreign companies, which will last for quite some time in the future. Thiamethoxam, dinotefuran and pyraclostrobin are all outstanding pesticides with expired protection in China. That's why they have attracted investment from a number of Chinese pesticide companies. Huludao Lingyun is a typical example. It started to get involved in thiamethoxam, dinotefuran and pyraclostrobin early.

To date, it has mastered production techniques and obtained pesticide registration certificates of these 3 products,





according to the Regulation on Pesticide Administration. Specifically, Huludao Lingyun gained the registration certificate of 97.5% pyraclostrobin TC (certificate number: PD20160760) in June, 2016, of 99.1% dinotefuran TC (certificate number: PD20180585) in Feb., 2018 and of 98% thiamethoxam TC (certificate number: PD20181100) in March, 2018.

It is worth mentioning that there has not been a very long time since dinotefuran was introduced to by its inventor Mitsui Chemicals Agro, Inc. in 2013. The patent of dinotefuran in China expired in Oct., 2014. It has been only a few years since the development of dinotefuran in China, but the product has been high-profile for its expired patent and outstanding performance.

As a matter of fact, the production capacities of thiamethoxam TC and pyraclostrobin TC in China are being expanded now. But in contrast, the overall supply of dinotefuran TC in China remains to be improved. Major qualified producers of dinotefuran TC in China include Jingmen Jinxianda Biotechnology Co., Ltd. and Hebei Veyong Bio-Chemical Co., Ltd., which respectively have the production capacity of 500 t/a. And some other companies are planning to form the production capacity of dinotefuran TC.

Once the 900 t/a dinotefuran TC of Huludao Lingyun is put into production, it will be good for the development of the product in China and for the improvement of the company's competitive edge.





Market analysis

Most insecticide TC prices grow in June

Summary: Most insecticide TC prices went up with a few of them down in June. Overall price of organic phosphorous insecticide decreased slightly. Price of pyrethroid insecticide remained strong due to tight supply, despite sluggish downstream demand. Most of nicotinamide insecticides had experienced price growth. Imidacloprid TC in particular, its price increased significantly because of supply shortage.

Overall price of organic phosphorous insecticide decreased slightly. To be more detailed, the ex-works price of chlorpyrifos TC declined a bit MoM, as a result of weak downstream demand, slack sales and sufficient inventory. Prices of phoxim TC and profenofos TC kept steady because of tight supply, despite slack downstream demand. The abundant orders of malathion TC helped kept the price high.

Price of pyrethroid insecticide remained strong due to tight supply, though the downstream demand was sluggish. The supply of cypermethrin TC in China is currently tight, because a large proportion of which are imported from India, which is still suffering from the COVID-19 epidemic, thus hindering the supply of the product. The ex-works price of bifenthrin TC in May went down slightly. However, it bounced back this month, with the support of raw material prices. Price of beta-cypermethrin TC continued its downward trend.

Most of nicotinamide insecticides had experienced price growth. Imidacloprid TC in particular, its price increased significantly due to the supply shortage caused by low operating rate and suppliers' reluctance to sell the product. Ex-works price of acetamiprid TC increased as well. Although the downstream demand for acetamiprid TC was not that great in June, but the supply tightness has turned the downtrend of the price into uptrend. Ex-works prices of nitenpyram TC and thiamethoxam TC declined a bit, owing to sufficient supply.



3.1-3 Ex-works price of major insecticide TC products in China, middle-June, 2021

Product name	Category	Price in mid-June, RMB/t	USD/t	MoM change
Chlorpyrifos TC	Phosphorous insecticide	38,000	5,977	Down
Phoxim TC	Phosphorous insecticide	37,000	5,820	Basically flat
Profenofos TC	Phosphorous insecticide	62,000	9,753	Basically flat
Malathion TC	Phosphorous insecticide	28,000	4,404	Basically flat
Beta-cypermethrin TC	Pyrethroid insecticide	182,500	28,708	Down
Cypermethrin TC	Pyrethroid insecticide	89,000	14,000	Up
Bifenthrin TC	Pyrethroid insecticide	236,000	37,123	Up
Imidacloprid TC	Nicotinamide insecticide	145,000	22,809	Up
Acetamiprid TC	Nicotinamide insecticide	122,500	19,269	Up
Thiamethoxam TC	Nicotinamide insecticide	92,500	14,550	Down
Nitenpyram TC	Nicotinamide insecticide	145,000	22,809	Down

Source:CCM

Low operating rates of imidacloprid TC and acetamiprid TC producers in June

Summary: The operating rates of imidacloprid TC and acetamiprid TC producers in China were relatively low in June, because of supply shortage of raw materials. Additionally, the wait-and-see attitude in downstream purchasing agents resulted in the low operating rate to some extent. It is expected that the operating rates will not be raised up in the short term.

The operating rates of imidacloprid TC and acetamiprid TC producers in China were relatively low in June. To be more specific, Shandong Liaherd Chemical Industry Co., Ltd.'s production lines of imidacloprid TC and acetamiprid TC were underloaded, and the company welcomed new orders. Qingdao Hailir Pesticides & Chemicals Group (Hailir)'s production lines of imidacloprid TC and acetamiprid TC were operating with the rate of less than 30%. Hailir said that it has stopped taking orders of imidacloprid TC, but welcomed a few acetamiprid TC orders for there were inventory. Jiangsu Changlong Agrochemical Co., Ltd.'s imidacloprid TC production line worked normally. It can take new orders, which will be delivered according to production schedule, because there is no goods in stock. Hebei Yetian Agrochemicals Co., Ltd.'s operating rate of imidacloprid TC was low as well, with no goods in stock. The company was reluctant to take new orders.



The supply shortages of raw materials were accountable for the low operating rates of imidacloprid TC and acetamiprid TC. It is reported that the low operating rate of 2-chloro-5-chloromethylpyridine, an upstream intermediate, was low, leading to supply tightness and increased ex-works price. Under such a backdrop, most imidacloprid TC and acetamiprid TC producers tended to produce according to confirmed orders. Besides, the wait-and-see attitude in downstream purchase agents restrained the companies' enthusiasm for production.

It is expected that the supply tightness of imidacloprid TC and acetamiprid TC may continue in the short term. Although the inventory of these two products kept decreasing, there are still some ready goods on market, and is easy to purchase ready goods from companies. Therefore, the operating rates of imidacloprid TC and acetamiprid TC may not be raised up, if there is not growth in number of new orders but certain ready goods on market.

Price of bifenthrin TC grows in June due to continual supply shortage

Summary: The ex-works price of bifenthrin TC picked up in June, after decreased for months. Major reason for the high price of bifenthrin TC in H1 of 2021 was supply shortage. Domestic producers of bifenthrin TC are now faced with pressures from cost, production safety and environmental protection. Therefore, the supply tightness is estimated to continue in the short term.

From Jan. to Feb., 2021, domestic bifenthrin TC was in supply tightness, pushing up the price. In March, the price went down a bit, but sustained in high level. Before declining to a lower level, the ex-works price bounced back again in June. It is hard to find any ready bifenthrin TC on market now in China.

Major reason for the high price of bifenthrin TC in H1 of 2021 was supply shortage. The low operating rate of bifenthrin TC producers that are faced with pressure from cost, production safety and environmental protection led to the supply shortage of the product.

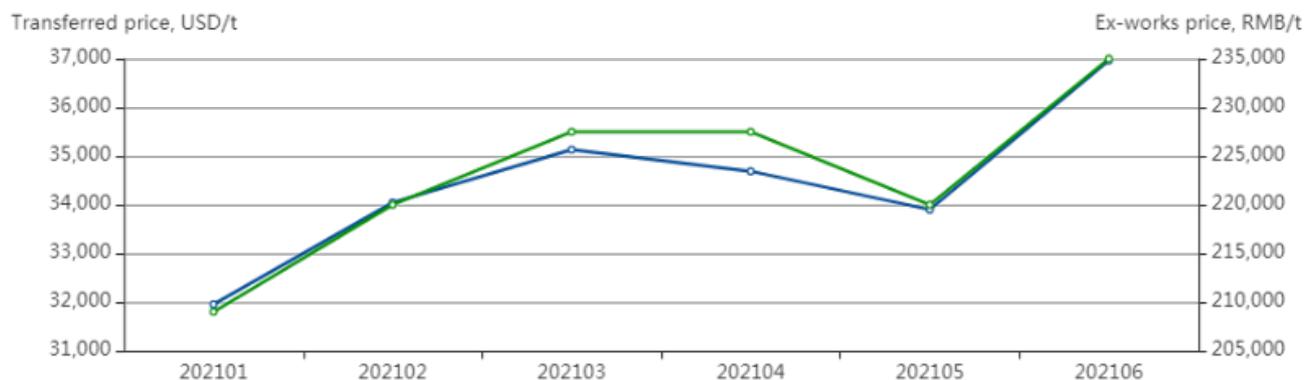
Looking back on H1 of 2021, the supply of bifenthrin TC in China was tight, with overall operating rate below 40%. To be more detailed, Jiangsu Youjia Crop Protection Co., Ltd. had the highest operating rate that reached over 90% at the highest. But the company dared not to produce to much bifenthrin TC, suffering from high raw material cost. The operating rates of Guangdong Liwei Chemical Industry Co., Ltd. and Jiangsu Chunjiang Runtian Agrochemical Co., Ltd. were 40%–50%. The high raw material cost has reduced the companies' enthusiasm for production, and the safety and environmental protection policies resulted in frequent suspension for maintenance, which contributed to the low operating rate. What's worse, some companies only had an operating rate of less than 10% or stopped production, owing to the pressures.





3.3-3 Ex-works price of bifenthrin TC in China, H1 2021

—○— Transferred price, USD/t —○— Ex-works price, RMB/t



Source:CCM

Chinese ex-works price of pymetrozine TC further decreases in June

Summary: The ex-works price of pymetrozine TC in June further decreased, due to weakening downstream demand. And that's why the operating rate of major pymetrozine TC producers remained relatively low, which is good for the bounceback of the price in the future. Besides, the increasing price of raw materials later may push up the price of pymetrozine TC.

Chinese ex-works price of pymetrozine TC further decreased in June. In 2021, the ex-works price of pymetrozine TC grew after the Spring Festival. However, it started falling down since April. Main reason for the decline in price was the weakening downstream purchase.

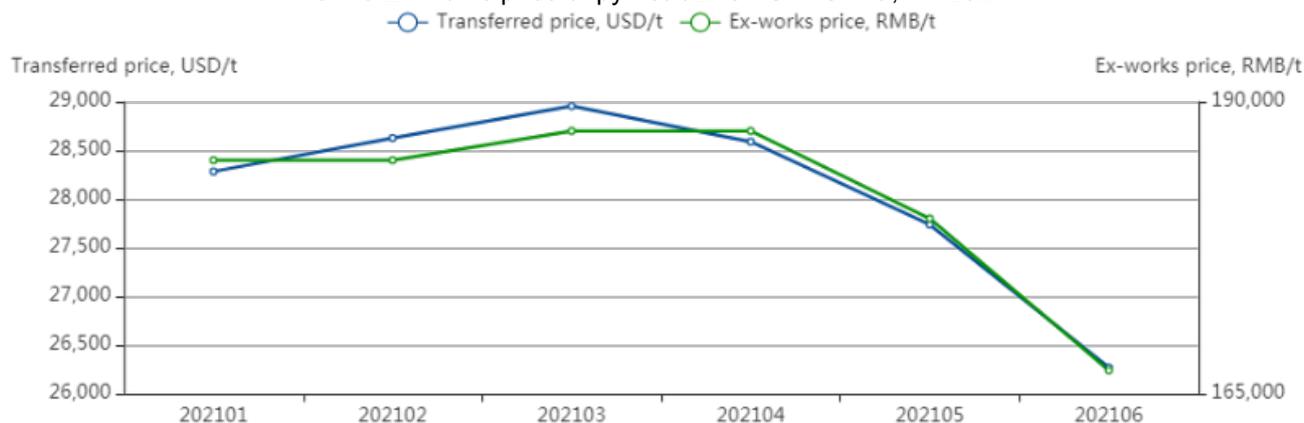
Jiangsu Jiangu Chem Co., Ltd. said that it saw reduction in number of new orders now and the operating rate of pymetrozine TC was less than 30%. Jiangsu Subin Bio-agrochemical Co., Ltd. reported pressure in sales of pymetrozine TC, and the operating rate was only around 20%, which may be lowered in the future. Lanzhou Xinlongtai Biotechnology Co., Ltd. had a relatively high yield, with the operating rate being about 60%–70%.

The low operating rate of pymetrozine TC producers is good to the bounceback of the price in the future. Notably, the increase in the pymetrozine TC price in H1 of 2021 was the result of the increasing price of raw materials including hydrazine and 3-cyanopyridine. Recently, uptrends were seen in the ex-works prices of hydrazine and 3-cyanopyridine in China, which may push up the price of pymetrozine TC in the future.





3.4-3 Ex-works price of pymetrozine TC in China, H1 2021



Source:CCM

Price of insecticide TC products in China, H1 2021

Summary: Looking back on the overall price of insecticide TC products in China in H1 of 2021, it went up at first and down later. Some products have seen their price picking up at present. It is estimated that the ex-works price of insecticide TC products in Q3 will grow a bit as a whole.

2021 is half way through, and the overall price of insecticide TC products in China went up first and down later during the period. In Q1, the ex-works price increased generally, due to limited supply of raw materials, restricted logistics and strong downstream demand. In Q2, producers lowered the ex-works price, as a result of the decreased orders and demand. Some products have seen their price picking up at present. It is estimated that the ex-works price of insecticide TC products in Q3 will grow a bit as a whole. To be more detailed:

In Jan., the overall ex-works price of insecticide TC products in China bounced back. The price of organophosphorus insecticide TC stopped declining and became stable, with some of them going up. The price of pyrethroid insecticide TC remained relatively stable as a whole and some of them increased slightly. The price of nicotinamide insecticide TC grew due to the epidemic of COVID-19.

In Feb., the price increased generally. The price of organophosphorus insecticide TC witnessed an average MoM growth of around 3% in early to middle of Feb. The same happened to pyrethroid insecticide TC, with the MoM growth of nearly 2%. Most of nicotinamide insecticide TC price rose significantly, leading to an average growth rate of over 5% MoM. Major reasons were the restricted supply of raw materials and logistics around the Spring Festival. Besides, suppliers were reluctant to lower the prices, which also supported the prices to go up.

In March, the safety inspection on companies becomes stricter during the holding of the NPC and CPPCC. The





prices of basic chemical raw materials increased and hovered at high level, driving up the cost of insecticides, which consequently pushed up the ex-works price of many insecticide TC products. Prices of not a few insecticides grew due to supply shortage despite declines in prices were seen in some other products. Notably, many quotations of bifenthrin TC were made based on futures rather than physicals at that time because of supply tightness. In addition, varying degrees of supply shortages can be seen in imidacloprid TC, acetamiprid TC, monosultap TC, propargite TC and chlorfluazuron TC.

In April, the ex-works price of nicotinamide insecticide in China declined; that of organophosphorus insecticide went up generally; and that of pyrethroid insecticide remained tepid, with some up but some down.

In May, prices of most domestic insecticide TC products remained stable. As for organophosphorus insecticides, their downstream demand failed to support the prices, but the prices of their raw materials stayed high. Therefore, most of the organophosphorus insecticide prices kept stable at high level. As for pyrethroid insecticides, downstream demand was slack, leading to the decreasing ex-works quotation from producers. As for nicotinamide insecticides, the increasing prices of raw materials upheld their prices, though downstream orders were limited.

In June, most of prices went up, which was mainly caused by low operating rate rather than increased downstream demand. Nicotinamide insecticide TC in particular, its low operating rate has greatly driven up the price.

It is worth mentioning that the slack season for pesticide industry has arrived at the end of May. However, the prices of some insecticide TC products still picked up in June. As a matter of fact, the purchase enthusiasm in the downstream has reduced and demand has turned slack. Therefore, limited supply was the major reason for the price growth. A series of factors such as the China (Shanghai) International Agrochemical & Crop Protection Exhibition 2021 held in June, local epidemics in some places and explosions due to hot weather in June have led to traffic control across the country. In addition, the anniversary of the founding of the Communist Party of China will fall on 1 July, which will have certain negative impact on the transport of upstream intermediate and other raw materials. Last but not least, June to July is a period when most domestic agrochemical companies stop production for maintenance. Therefore, the operating rate will be further reduced before Aug. All the reasons mentioned above are going to push up the price of insecticide TC products to some extent. That's why the overall price of insecticide is estimated to keep stable and even increase in the future 3 months.



Registration

151 insecticides registered in 2021 in China, by end-June

Summary: By end-June, there have been 151 new registrations of insecticides in China, 4 among which are TC products and the rest are formulations. Compound formulation takes the lead in formulation products with the number of 94. As for ingredients, clothianidin has most registrations followed by avermectin and thiamethoxam. Most of these 151 insecticides are of low toxicity.

4.1-2 Forms of newly-registered insecticides in China in 2021, by end-June

Forms	Number
SC	70
FS	19
WG	14
GR	11
EC	8
OF	6
CS	5
TC	4
EW	3
ME	3
FU	2
DR	1
SL	1
TK	1
CB	1
SE	1
ZF	1
Total	151



Source: Institute for the Control of Agrochemicals, Ministry of Agriculture and Rural Affairs of the People's Republic of China





4.1-3 Active ingredients of newly-registered insecticides in China in 2021, by end-June

Active ingredient	Number
Clothianidin	9
Avermectin	7
Thiamethoxam	5
Abamectin-aminomethyl	4
Chlorfenapyr, lufenuron	3
Flonicamid, spirotetramat	3
Clothianidin, lambda-cyhalothrin	3
Thiamethoxam, bifenthrin	3
Lufenuron	3
Lufenuron, avermectin	3
Pyriproxyfen, spirotetramat	2
Imidacloprid	2
Pymetrozine, dinotefuran	2
Acetamiprid, flonicamid	2
Dinotefuran	2
Flonicamid	2
Flonicamid, chlorfenapyr	2
Abamectin-aminomethyl, chlorfenapyr	2
Abamectin-aminomethyl, lufenuron	2
Bifenazate	2
Clothianidin, cyfluthrin	2
Thiacloprid, spirotetramat	2
Thiamethoxam, lambda-cyhalothrin	2





Thiamethoxam, spirotetramat	2
Azocyclotin, etoxazole	2
Indoxacarb, chlorfenapyr	2
Pyriproxyfen, thiamethoxam	1
Imidacloprid, difenoconazole	1
Imidacloprid, lambda-cyhalothrin	1
Imidacloprid, fludioxonil, azoxystrobin	1
Imidacloprid, thiodicarb	1
Imidacloprid, spirotetramat	1
Imidacloprid, deltamethrin	1
Pymetrozine, flonicamid	1
Pymetrozine, clothianidin	1
Chlorfenapyr	1
Chlorfenapyr, avermectin	1
Pyrethrins	1
Pyridaben	1
Pyridaben, acetamiprid	1
Pyridaben, bifenthrin	1
Acetamiprid, beta-cypermethrin	1
Acetamiprid, bifenthrin	1
Diazinon	1
E-8-Dodecenyl acetate	1
E-8-Dodecenyl acetate, Z-8-Dodecenyl acetate, Z-8-Dodecenol	1
Dinotefuran, spirotetramat	1
Dinotefuran, etofenprox	1





Dinotefuran, deltamethrin	1
Dinotefuran, isoprocarb	1
Fluazinam, avermectin	1
Flonicamid, bifenthrin	1
Flonicamid, deltamethrin	1
Fludioxonil, clothianidin, metalaxyl-M	1
Fludioxonil, thiamethoxam, difenoconazole	1
Fludioxonil, thiamethoxam, metalaxyl-M	1
Fludioxonil, thifluzamide, clothianidin	1
Abamectin-aminomethyl, alpha-cypermethrin	1
Abamectin-aminomethyl, indoxacarb	1
Methoxyfenozide, avermectin	1
Methoxyfenozide, chlorfenapyr	1
Metarhizium anisopliae	1
Matrine	1
Petroleum oil	1
Veratramine	1
Thiodicarb	1
Spirotetramat	1
Chlorantraniliprole	1
Chlorantraniliprole, chlorfenapyr	1
Chlorantraniliprole, abamectin-aminomethyl	1
Chlorantraniliprole, methoxyfenozide	1
Cypermethrin	1
Prochloraz, fludioxonil, thiamethoxam	1





Azoxystrobin, clothianidin, metalaxyl-M	1
Metaflumizone, chlorfenapyr	1
Clothianidin, oligosaccharins , bifenthrin	1
Clothianidin, flonicamid	1
Clothianidin, bifenthrin	1
Clothianidin, spirotetramat	1
Clothianidin, monosultap	1
Clothianidin, bisultap	1
Thiamethoxam, flonicamid	1
Thifluzamide, clothianidin, metalaxyl-M	1
Buprofezin, spirotetramat	1
Triflumezopyrim	1
Lufenuron, beta-cyfluthrin	1
Lufenuron, lambda-cyhalothrin	1
Lufenuron, spirodiclofen	1
Lufenuron, alpha-cypermethrin	1
Z-8-dodecenol	1
Z-8-Dodecenyl acetate	1
Broflanilide	1
Deltamethrin	1
Deltamethrin, chlorfenapyr	1
Deltamethrin, spirotetramat	1
Ivermectin, spirotetramat	1
Etoxazole	1
Etoxazole, spirotetramat	1





2'-benzoyl-1'-tert-butylbenzoylhydrazine, abamectin-aminomethyl	1
Muscalure	1
Zhongshengmycin, pyraclostrobin, thiamethoxam	1
Tolfenpyrad, abamectin-aminomethyl	1
Total	151

Source: Institute for the Control of Agrochemicals, Ministry of Agriculture and Rural Affairs of the People's Republic of China

4.1-4 Toxicity of newly-registered insecticides in China in 2021, by end-June

Toxicity	Number
Low	113
Micro	14
Middle	11
Low (but TC of high toxicity)	9
Middle (but TC of high toxicity)	4
Total	151

Source: Institute for the Control of Agrochemicals, Ministry of Agriculture and Rural Affairs of the People's Republic of China



4.1-5 Companies that obtained registration certificates of insecticides in China in 2021, by end-June

Producer	Number
Jilin Bada Pesticide Co., Ltd.	4
Shaanxi Meibang Pesticide Group Co., Ltd.	4
Yangling Xianglin Agricultural and Biotechnology Science Co., Ltd.	4
Hunan Xinchangshan Agricultural Co., Ltd.	3
Jiangsu Rotam Agrochemical Co., Ltd.	3
Pilarquim (Jiangsu) Co., Ltd.	3
Jiangsu Yunfan Chemical Co., Ltd.	3
Mengzhou Liufuding Crop Protection Co., Ltd.	3
Qingdao Zhengdao Pharmaceutical Co., Ltd.	3
Shaanxi Thompson Biological Technology Co., Ltd.	3
Shaanxi Yitianfeng Crop Science Co., Ltd.	3
Shanghai Yuelian Biotech Co., Ltd.	3
Tagros Chemicals India Ltd.	3
Anhui Keyuan Plant Protection Engineering Co., Ltd.	2
Henan Jintiandi Agro-chemical Co., Ltd.	2
Henan Loongboy Montreal Biotechnology Co., Ltd.	2
Hubei Xiantao Xianlong Chemical Industry Co., Ltd.	2
Hunan Nongda Haite Agrochemical Co., Ltd.	2
Jiangxi Fuzhou Xinxing Chemical Co., Ltd.	2
Jiangxi Zhongxun Agri-science Co., Ltd.	2
Jiangxi Zhonghe Chemical Co., Ltd.	2
Jingbo Agrochemicals Technology Co., Ltd.	2
Nanyang Xinwolong Biochemical Co., Ltd.	2





Qingdao Rainbow Chemical Co., Ltd.	2
Qingdao Zhongda Agricultural Technology Co., Ltd.	2
Shandong Qilin Agrochemical Co., Ltd.	2
Shandong United Pesticide Industry Co., Ltd.	2
Shandong Tangpule Crop Science Co., Ltd.	2
Shaanxi Biogen Crop Science Co., Ltd.	2
Shaanxi Xianong Biological Science and Technology Co., Ltd.	2
Sichuan Red Seed High and New Tech. Agricultural Co., Ltd.	2
Shangyu Yongnong Chemical Co., Ltd.	2
ADAMA Anpon (Jiangsu) Co., Ltd.	1
Anhui Fengle Agrochemical Co., Ltd.	1
Anhui Huawei Agrochemical Co., Ltd.	1
Anhui Meiland Agricultural Development Co., Ltd.	1
Anhui Shanghe Woda Biotechnology Co., Ltd.	1
Anhui Xifengshou Agricultural Science & Technology Co., Ltd.	1
Anhui Yuanjing Crop Protection Co., Ltd.	1
Chengdu Kelilong Biochemistry Co., Ltd.	1
Fujian Desheng Bio-engineering Co., Ltd.	1
Guangdong Goodful Biotechnology Co., Ltd.	1
Yingde Greatchem Chemical Co., Ltd.	1
Guangdong New Scene Biological Engineering Co., Ltd.	1
Guangdong Zhenge Biological Technology Co., Ltd.	1
Guangxi Bindeli Biotechnology Co., Ltd.	1
Guangxi Eppo Pesticide Factory Co., Ltd.	1
Hainan Neemtech Bio-Pesticide Co., Ltd.	1





Hainan Zhengye Zhongnong High-tech Stock Co., Ltd.	1
Hebei De-Rich Chemical Co., Ltd.	1
Hebei Guanlong Agrochemical Co., Ltd.	1
Hebei Ruibaode Biochemical Co., Ltd.	1
Hebei Saifeng Biotechnology Co., Ltd.	1
Hebei Veyong Bio-Chemical Co., Ltd.	1
Henan Hansi Crop Protection Co., Ltd.	1
Henan Haonianjing Biology Development Co., Ltd.	1
Henan Kehui Industrial Co., Ltd.	1
Henan Anyang Ruipu Agrochemical Co., Ltd.	1
Henan Mengzhou Huafeng Biochemistry Pesticide Co., Ltd.	1
Henan Yongguan Qiaodi Agrosience Co., Ltd.	1
Hebi Quanfeng Biotechnology Co., Ltd.	1
Tianmen SPRING Plant Protection Co., Ltd.	1
North China Pharmaceutical Group Aino Co., Ltd.	1
Huizhou Yinnong Technology Co., Ltd.	1
Jinan Luba Pesticides Co., Ltd.	1
Jiangsu Kwin Group Co., Ltd.	1
Nantong Jiangshan Agrochemical & Chemicals Co., Ltd.	1
Jiangxi Huihe Chemical Co., Ltd.	1
Jiangxi Nanong Xintian Science and Technology Co., Ltd.	1
Jiangxi Oumei Biotechnology Co., Ltd.	1
Kaifeng Bianliang Seed Co., Ltd.	1
Kunming Pesticide Co., Ltd.	1
Lanxi Jinghang Biotechnology Co., Ltd.	1





Liaoning Zhuangmiao Tech Co., Ltd.	1
Liuzhou Huinong Chemical Co., Ltd.	1
E. I. du Pont de Nemours and Company, Inc.	1
Jiangsu Nanjing Baofeng Pesticide Co., Ltd.	1
Nanjing Nannong Agriculture Science and Technology Development Co., Ltd.	1
Ningxia Taiycin Biotech Co., Ltd.	1
Mitsui Chemicals Agro, Inc.	1
Ruyang Ziqiang Biotechnology Co., Ltd.	1
Jiangsu Ruilong Chemical (Suzhou) Co., Ltd.	1
Shandong Huimin Vanda Biological Technology Co., Ltd.	1
Shandong Heze Beilian Pesticide Manufacturing Co., Ltd.	1
Shandong Jinan Yinong Chemical Co., Ltd.	1
Shandong Jining Tongda Chemical Plant	1
Shandong Jinnong Biological Chemical Co., Ltd.	1
Qingdao Dongsheng Pharmaceutical Co., Ltd.	1
Qingdao Hansen Biologic Science Co., Ltd.	1
Shandong Vicome Greenland Chem Co., Ltd.	1
Shandong Wanhao Chemical Co., Ltd.	1
Shandong Yetian Biotechnology Co., Ltd.	1
Shanxi Qixing Pesticides Co., Ltd.	1
Shaanxi Dongpeng Kaiyuan Agricultural Science and Technology Co., Ltd.	1
Shaanxi Sunger Road Bio-Science Co., Ltd.	1
Shaanxi Xidahuate Co., Ltd.	1
Shanghai Heben Eastsun Medicaments Co., Limited	1
Shanghai Yuelian Chemical Co., Ltd.	1





Synwill Group Co., Ltd.	1
Sichuan Lier Crop Science Co., Ltd.	1
Xi'an Dingsheng Biochemical Co., Ltd.	1
Jian'an Changsheng Daily Chemicals Industry Co., Ltd.	1
Zhejiang Zhongshan Chemicals Group Co., Ltd.	1
Total	151

Source: Institute for the Control of Agrochemicals, Ministry of Agriculture and Rural Affairs of the People's Republic of China



Policy

Guidance on environmental access threshold for chemical API, pesticide and dye industries of Ningxia issued

Summary: On 27 May, the Ecology and Environment Department of Ningxia Hui Autonomous Region issued the Guidance on Environmental Access Threshold for Chemical API, Pesticide and Dye Industries of Ningxia Hui Autonomous Region (the Guidance). It is reported that the Guidance set environmental requirements for construction projects of chemical API, pesticide and dye industries in the following 5 respects such as location and overall planning, level of technical facilities, pollution disposal measures, total quantity control and clean production and environmental management and threshold. Also, requirements for technical facilities and techniques of the 3 industries mentioned above are put forward. As for pesticides, a wide range of pesticide products are covered by the Guidance. Besides, introduction of advanced design ideas, production techniques and management system from home or abroad is encouraged. The production techniques and facilities that are good for energy-saving, emission-reducing, diffuence of sewage and decrease of unorganized emission should be chosen. Level of production facilities of all technical units should be greatly improved.

On 27 May, 2021, the Ecology and Environment Department of Ningxia Hui Autonomous Region issued the Guidance on Environmental Access Threshold for Chemical API, Pesticide and Dye Industries of Ningxia Hui Autonomous Region (the Guidance). From the institutional aspect, the Guidance set environmental requirement for the access of construction projects, standardize the environmental management of projects of chemical API, pesticide and dye industries, and fills the gap of environmental access policy for industry in Ningxia Hui Autonomous Region.

As for pesticide industry, according to the Guidance, the C263 pesticide manufacturing project including chemical pesticide manufacturing (C2631) and biopesticide and microbial pesticide manufacturing (C2632) listed on the Industrial Classification for National Economic Activities are covered; the pesticide manufacturing contains manufacturing of pesticide intermediate and TC, and the processing and compounding of pesticide formulation. For expansion projects, they should be in line with related laws and regulations and national and local requirements for industrial structure adjustment and elimination of laggard capacity. For new projects, advanced production techniques and facilities should be adopted, and laggard capacities, facilities and products listed as restricted or eliminated items in the Catalogue for Guiding Industry Restructuring (2019 Version) should not be involved.

Besides, introduction of advanced design ideas, production techniques and management system from home or abroad is encouraged. The production techniques and facilities that are good to energy-saving, emission-reducing, diffuence of sewage and decrease of unorganized emission should be chosen. Level of production facilities of all technical units should be greatly improved. Notably, the Guidance advocated the use of continuous production techniques and quantitative control techniques, so as to increase product yield and reduce pollutants. What's more,





advanced conveying facilities and techniques are encouraged to use. Airslide conveyor or enclosed solid feeder should be adopted for adding powdered and granular VOCs materials. Enclosed production techniques should be adopted, and the waste gas, volatile gas and reaction tail gas should be discharged into the VOCs waste gas collection and disposal system. The processes of adding or discharging organic solvent and volatile toxic materials should be airtight, and unconfined vacuum filtration or solid-liquid separation facilities are not allowed to use.





Pest

Northward migration of *spodoptera frugiperda* peaks from end-May to end-June

Summary: The NATESC held a conference on occurrence trends of pests and diseases on early rice and *spodoptera frugiperda* of 2021 at the end of May. Forecast technicians from 13 provinces south of the Yangtze River and experts from the Chinese Academy of Sciences, Institute of Plant Protection, Nanjing Agricultural University, South China Agricultural University and National Meteorological Centre attended the conference. Wang Fuxiang, deputy director of the NATESC, and Qiu Xiaohua, senior inspector of the Agriculture and Rural Department of Guangdong Province attended and delivered speeches. It was said on the conference that pests and diseases on early rice would be at middle level as a whole in 2021.

In order to estimate the trend of pests and diseases on early rice and *spodoptera frugiperda*, the National Agro-Tech Extension and Service Center (NATESC) held a conference on occurrence trends of pests and diseases of early rice and *spodoptera frugiperda* of 2021 on 23 May.

According to the prediction made by experts, pests and diseases on early rice will be at middle level as a whole in 2021, with 246 million mu of areas affected, less than last year. To be more specific, rice planthopper will be slightly serious in western areas of south China and southern areas of southwest China, and at middle level in rice planting areas south of the Yangtze River; rice leaf roller will be at middle level in south China and areas south of Yangtze River; *Chilo suppressalis* will be slightly serious in areas south of Yangtze River and middle reaches of the River; sheath blight will happen massively in high-yield rice planting areas in eastern areas of Guangxi Zhuang Autonomous Region and will be slightly serious in most areas in south China, places south of the Yangtze River and middle reaches of the River; rice blast will be slightly serious in hilly and mountain areas, areas frequent blighted before and planted with susceptible varieties. Besides, northward migration of *spodoptera frugiperda* peaks from end-May to end-June. Therefore, the pest will be seen in Jiang-Huai Region, Huang-Huai Region and northwest China gradually, a bit earlier than last year. A total of 670,000 ha (10 million mu) of areas will be affected. As for other places, some areas in southwest and south China will see serious occurrence of *spodoptera frugiperda*, areas south of Yangtze River and the lower reaches of the River will see middle level and Jiang-Huai, Huang-Huai Regions and northwest China and north China will see slight occurrence. Discussion on parameters of monitoring tools of pests and diseases were held on the conference to promote standardized, practical and high-efficiency development of the tools.

On the conference, experts required that forecasting technicians should fully understand the importance of monitor of pests and diseases to national food safety, fulfill the duties, increase the sense of responsibility and mission, thus lay a solid foundation for the prevention and control of rice planthopper and rice leaf roller and *spodoptera frugiperda* as well as for bumper harvest this year.





Import and Export

China's export of chlorpyrifos to main destinations from Jan. to April 2021

Summary: According to the import and export data sourced from Tranalysis, from Jan. to April 2021, China exported 3,914.11 tonnes (actual volume) or 3,398.27 tonnes (100% AI volume) of chlorpyrifos to 22 main destinations including Pakistan, Indonesia, Peru, the US and Mexico.

According to the import and export data sourced from Tranalysis, from Jan. to April 2021, China exported 3,914.11 tonnes (actual volume) or 3,398.27 tonnes (100% AI volume) of chlorpyrifos to 22 main destinations including Pakistan, Indonesia, Peru, the US and Mexico.

Details are as follow:

Chlorpyrifos formulation

- Main products: chlorpyrifos 200g/L EC, chlorpyrifos 400g/L EC, chlorpyrifos 480g/L EC and chlorpyrifos 500g/L EC
- Main export destination: From Jan. to April 2021, 746.43 tonnes (actual volume) of chlorpyrifos formulation were export to main detinations at an average export price of USD 4.18/kg. Ghana was the one that imported most chlorpyrifos formulation from China during the period, with the volume of 185.11 tonnes (actual volume), accounting for 24.80% of China's total export volume to main destinations.
- Main exporters: Top 3 exporters were Hangzhou Yimin Chemical Co., Ltd., Shandong Rainbow Agrosiences Co., Ltd. and JOC Uniwell Industrial Co., Ltd. They exported a total of 215.65 tonnes (actual volume), making up 28.89% of China's total export volume main destinations.

Chlorpyrifos TC

- Main product: 97% chlorpyrifos TC
- Main export destination: From Jan. to April 2021, 3,167.68 tonnes (actual volume) of chlorpyrifos TC were export to main detinations at an average export price of USD 5.60/kg. Pakistan imported most chlorpyrifos TC from China during the period, with the volume of 739.50 tonnes (actual volume), accounting for 23.35% of China's total export volume to main destinations.
- Main exporters: Top 3 exporters were Nanjing Bodao Logistics Co., Ltd., Sino-Agri Red Sun Biotechnology Co., Ltd. and China Jiangsu International Economic and Technical Cooperation Group, LTD. They exported a total of 1,081.20 tonnes (actual volume), making up 34.13% of China's total export volume main destinations.



7.1-3 China's exports of chlorpyrifos formulations by month, Jan.–April 2021

Month	200g/L EC		400g/L EC		480g/L EC		500g/L EC		Total	
	Volume (kg)	Unit price (USD/kg)	Volume (kg)	Unit price (USD/kg)	Volume (kg)	Unit price (USD/kg)	Volume (kg)	Unit price (USD/kg)	Volume (kg)	Unit price (USD/kg)
1	27,865	2.38	23,200	3.71	259,309	4.50	0	/	310,374	4.21
2	985	2.92	30,800	3.06	164,947	3.79	0	/	196,732	3.55
3	6,208	2.45	0	/	202,169	4.54	16,640	5.82	225,017	4.61
4	3,000	2.7	0	/	11308	4.06	0	/	14,308	3.78
Total	38,058	2.43	54,000	3.34	637,733	4.38	16,640	5.82	746,431	4.18

Source:Tranalysis

Note:The data, updated to April 2021, were sourced from Tranalysis on 7 June, 2021

7.1-4 China's exports of chlorpyrifos TC by month, Jan.–April 2021

Month	90% TC		94% TC		95% TC		96% TC		97% TC		98% TC		Total	
	Volume (kg)	Unit price (USD/kg)	Volume (kg)	Unit price (USD/kg)	Volume (kg)	Unit price (USD/kg)	Volume (kg)	Unit price (USD/kg)	Volume (kg)	Unit price (USD/kg)	Volume (kg)	Unit price (USD/kg)	Volume (kg)	Unit price (USD/kg)
1	49,505	6.12	100,000	5.65	90,000	5.58	2,000	17.72	1,389,328	5.27	0	/	1,630,833	5.36
2	0	/	80,000	5.8	75,500	5.97	0	/	820,258	5.68	82,000	6.31	1,057,758	5.77
3	20,000	6.32	2,523	5.85	107,477	6.26	3,477	5.85	149,348	5.83	13,761	5.76	296,586	6.03
4	0	/	0	/	0	/	2,000	17.72	173,000	5.8	7,500	5.75	182,500	5.93
Total	69,505	6.18	182,523	5.72	272,977	5.96	7,477	12.2	2,531,934	5.47	103,261	6.19	3,167,677	5.6

Source:Tranalysis

Note:The data, updated to April 2021, were sourced from Tranalysis on 7 June, 2021



7.1-5 China's export volume of chlorpyrifos formulations by destination, Jan.–April 2021, kg

Destination	200g/L EC	400g/L EC	480g/L EC	500g/L EC	Total
Ghana	0	0	185,114	0	185,114
Peru	0	22,000	129,379	16,640	168,019
Bangladesh	22,058	0	108,870	0	130,928
Indonesia	16,000	0	40,000	0	56,000
Honduras	0	0	49,652	0	49,652
Kenya	0	0	27,651	0	42,451
Brazil	0	0	40,000	0	40,000
Russia	0	0	17,136	0	17,136
Pakistan	0	16,000	0	0	16,000
Germany	0	0	15,980	0	15,980
Others	0	16,000	23,951	0	25,151
Total	38,058	54,000	637,733	16,640	746,431

Source:Tranalysis

Note:The data, updated to April 2021, were sourced from Tranalysis on 7 June, 2021



7.1-6 China's export volume of chlorpyrifos TC by destination, Jan.–April 2021, kg

Destination	90% TC	94% TC	95% TC	96% TC	97% TC	98% TC	Total
Pakistan	0	180,000	89,000	0	470,500	0	739,500
Indonesia	0	0	0	0	511,250	7,500	518,750
The US	0	0	0	0	434,704	0	434,704
Peru	0	0	0	0	299,468	12,500	311,968
Mexico	0	0	180,500	0	50,000	2,000	232,500
Argentina	0	0	0	0	203,000	0	203,000
Brazil	0	0	0	0	112,000	80,000	192,000
Vietnam	0	0	0	4,000	176,000	0	180,000
Philippines	0	0	0	0	98,500	0	98,500
Russia	0	0	0	0	80,000	0	80,000
Others	69,505	2,523	3,477	3,477	96,512	1,261	176,755
Total	69,505	182,523	272,977	7,477	2,531,934	103,261	3,167,677

Source:Tranalysis

Note:The data, updated to April 2021, were sourced from Tranalysis on 7 June, 2021

7.1-7 China's export volume of chlorpyrifos formulations by exporter, Jan.–April 2021, kg

Exporter	200g/L EC	400g/L EC	480g/L EC	500g/L EC	Total
Hangzhou Yimin Chemical Co., Ltd.	0	0	85,164	0	85,164
Shandong Rainbow Agrosiences Co., Ltd.	0	22,000	44,097	0	66,097
JOC Uniwell Industrial Co., Ltd.	0	0	47,745	16,640	64,385
Nova Agro (HK) Limited	0	0	45,114	0	45,114
Shandong Rainbow International Co., Ltd.	0	0	41,527	0	41,527
Zhuochen Industries (Shanghai) Co., Ltd.	0	0	40,000	0	40,000
Sinochem Agro Co., Ltd.	0	0	35,200	0	35,200
Jiangsu HOSO Import and Export Corp., Ltd.	0	0	31,040	0	31,040
Zhejiang Xinnong Chemical Co., Ltd.	0	0	27,651	0	27,651
Jiangsu Trustchem Co., Ltd.	0	0	17,920	0	17,920
Others	38,058	32,000	222,275	0	292,333
Total	38,058	54,000	637,733	16,640	746,431

Source:Tranalysis

Note:The data, updated to April 2021, were sourced from Tranalysis on 7 June, 2021



7.1-8 China's export volume of chlorpyrifos TC by exporter, Jan.–April 2021, kg

Exporter	90% TC	94% TC	95% TC	96% TC	97% TC	98% TC	Total
Nanjing Bodao Logistics Co., Ltd.	0	40,000	0	0	414,500	0	454,500
Sino-Agri Red Sun Bio-Technology Co., Ltd.	0	0	0	0	383,784	0	383,784
China Jiangsu International Economic and Technical Cooperation Group, LTD	0	60,000	0	0	182,920	0	242,920
Zhejiang Hengdian Imp. & Exp. Co., Ltd.	0	0	0	0	140,000	0	140,000
Qingdao Rainbow Chemical Co., Ltd.	0	0	0	0	120,000	0	120,000
Zhejiang Chemicals Import & Export Corporation	0	0	0	0	116,000	0	116,000
Shandong Weifang Rainbow Chemical Co., Ltd.	0	0	54,500	0	50,000	0	104,500
Zhuochen Industries (Shanghai) Co., Ltd.	0	0	0	0	101,000	0	101,000
Nanjing Rising Chemical Co., Ltd.	0	40,000	20,000	0	40,000	0	100,000
Beijing Luckystar Co., Ltd.	0	0	0	0	97,000	0	97,000
Others	69,505	42,523	198,477	7,477	886,730	103,261	1,307,973
Total	69,505	182,523	272,977	7,477	2,531,934	103,261	3,167,677

Source:Tranalysis

Note:The data, updated to April 2021, were sourced from Tranalysis on 7 June, 2021





News in Brief

MOEE to curb pell-mell development of energy-intensive and high-emission projects

On 31 May, the Ministry of Ecology and Environment issued the Guidance on Strengthening Prevention and Control of Energy-intensive and High-emission Project at The Source (the Guidance), to speed up the promotion of green and low-carbon development and resolutely curb the pell-mell development of projects consuming lots of energy and discharge lots of pollutants. The Guidance requires increasing the efficacy of environmental impact assessment (EIA), launching follow-up EIA on coal power bases, modern coal chemical demonstration areas and petrochemical industrial bases, improving measures for environmental and ecological protection and upgrading overall planning timely. Besides, it is said in the Guidance that petrochemical and modern coal chemical projects should be included in the national industrial planning. New or expanding petrochemical, chemical and coking industrial projects should be located in legal industrial parks that have passed EIA. Construction of energy-intensive and high-emission projects without passing EIA or arbitrary change in construction content before being resubmitted for approval should be stopped and dealt with. Projects failing to meet environmental thresholds for admittance should be restored to the former state.

Grand Holding to make Grand Plant Protection platform company in biopesticide sector

On 4 June, Grand Holding Co., Ltd. (Grand Holding) issued an announcement saying that it would increase capital of its wholly-owned subsidiary. According to the announcement, Grand Holding will increase the capital of its wholly-owned subsidiary Grand Biotechnological Plant Protection (Shanghai) Co., Ltd. (Grand Plant Protection) by USD44.04 million (RMB280 million) in the way of cash which comes from the company's own fund. After capital increase, the registered capital of Grand Plant Protection will be improved from USD3.15 million (RMB20 million) to USD47.19 million (RMB300 million). Grand Holding stated that it planned to make Grand Plant Protection a platform company in the biopesticide sector, and would make it responsible for the acquisition of other related companies to form an agglomerative industrial management system.

Research breakthrough: new infrared light can help improve effective utilization of pesticide

On 9 June, it was learned from the Hefei Institute of Physical Science, Chinese Academy of Sciences that, the team led by Wu Zhengyan and Zhangjia in its Intelligence Department has cooperated with Professor Cai Dongqing of Donghua University and made breakthrough in photoresponse pesticide controlled release system. They found that the new infrared light can help improve effective utilization of pesticide. Based on hollow carbon sphere / gel compound, the team constructed a photoresponse pesticide controlled release system that can control the waste and improve the utilization rate of pesticide by virtue of its flexible response to infrared light. The technology embraces good prospect in reducing use amount and increase efficiency of pesticide and protect agricultural environment. The research result has been accepted and issued by Journal of Agricultural and Food Chemistry, a core agricultural journal.





Syngenta may be listed on STAR market of SSE at end of 2021

It is learned from early-June that Syngenta, the agricultural sector of China National Chemical Corporation, has employed consultant company for its listing on the STAR market of Shanghai Stock Exchange (SSE) at the end of 2021, with the valuation as much as USD60 billion and the recommendation institutions as China International Capital Corporation Limited and CITIC Securities Co., Ltd. As a Chinese company headquartered in Switzerland, Syngenta is consisted of 4 sectors such as Syngenta Crop Protection located in Basel, Switzerland, Syngenta Seed in Chicago, the US, ADAMA in Israel and Syngenta Group China.

MOA to eliminate 10 high-toxic pesticides by stages and groups

On 11 June, the 3-year action plan to curb prohibited goods, control pesticide residue and promote development of edible agricultural products was initiated by 7 departments including the Ministry of Agriculture and Rural Affairs and the State Administration for Market Regulation. It was said that 10 high-toxic pesticides would be eliminated by stages and groups. In particular, the high-toxic pesticides with relatively high residue detected would be eliminated first. The 10 high-toxic pesticides are phorate, isocarbophos, omethoate, carbofuran, methomyl, ethoprophos, isofenphos-methyl, aldicarb, chloropicrin and aluminium phosphide. It was put forward that next step, efforts would be paid to make good use to the qualification certificate system of edible agricultural products. The qualification certificate will be issued to major products based on strengthened self-control and self-check to attach the certificate on every agricultural goods before coming onto the market. In the meanwhile, more effort will be made to launch pot check and improve fast test, striving to solve the problem of illegal usage of restricted and banned pesticides and curb the excessive residues of pesticide and veterinary drug.

Fengshan Group signs cooperation agreement with Guizhou University

A signing ceremony between Jiangsu Fengshan Group Co., Ltd. (Fengshan Group) and Guizhou University was held on 11 June. Fengshan Group said that through long-term cooperation, it will gain technical and talent supports from Guizhou University to develop more and better products and technologies.

Number of pesticides used to treat spodoptera frugiperda increased to 7 in China

On 11 June, the applications for expanding treating targets of 2 products to spodoptera frugiperda were approved in China. One of them was beauveria bassiana 10 billion spores/g OF (certificate number: PD20180788) from Shanxi Luhai Pesticide Science and Technology Co., Ltd. It is recommended to spray this product for once in the early occurrence of spodoptera frugiperda larvae. Originally, the product was registered to prevent and control corn armyworm, corn borer and grassland locust. Another was matrine-azadirachtin 1% EC (certificate number: PD20110336) from Yunnan Lvrong Biological Industrial Development Co., Ltd. It is recommended to spray the product for once during the period of vigorous egg hatching to occurrence of spodoptera frugiperda larvae. The product was originally registered to prevent and control cabbage diamondback moth. To date, there have been totally 7 products registered to treat spodoptera frugiperda in China, with active ingredients being bacillus thuringiensis,





metarhizium anisopliae, beauveria bassiana, Mamestra brassicae multiple NPV, matrine and azadirachtin, all of which are environmental-friendly and low-toxicity biopesticides.

MOA starts 3-year action to crack down on illegal pesticides and control pesticide residue

On 11 June, a video conference for initiating the "3-year action to crack down on illegal pesticides and control pesticide residue to promote improvement of agricultural products" was held by 7 departments such as the Ministry of Agriculture and Rural Affairs, the State Administration for Market Regulation, the Ministry of Public Security, the Supreme People's Court, the Supreme People's Procuratorate, the Ministry of Industry and Information Technology and the National Health Commission. It was said on the conference that the quality and safety of agricultural products in China have been increasing as a whole, owing to the implementation of deployments of the Party Central Committee and the State Council and strengthened supervision. However, there are still hidden dangers in some areas and on some products. Therefore, related departments at all levels were required to focus on major products and adopt precise management to supervise the source, production and launch of the products. Besides, law enforcement should be strengthened and system should be built to speed up the troubleshooting of the problems such as illegal uses of banned pesticides and veterinary drugs and exceeding residues of conventional pesticides and veterinary drugs, so as to guarantee food safety.

Hailir initiates safety management transformation project

The kick-off meeting of Hailir Pesticides and Chemicals Group (Hailir)'s safety management transformation project was held in Shandong Hailir Chemicals Co., Ltd., Hailir's subsidiary, on 16 June. On the meeting, Hailir had analyzed the status quo of safety of the company and the transformation project, and pointed out the background, meanings and targets, plans and evaluation mechanism of the project, in order to promote the implementation of the project.

Bio-control technology - "combating pests with pests" invented by entrepreneur team

It was learned from Nankai University that a student entrepreneur team — Natural Guard from its School of Life Science has invented a bio-control technology of "combating pests with pests", under the guidance of the tutor. The technology is effective to solve the problems of pesticide residue, insecticide resistance and pollution. The preventive rate of underground insects reached over 80%, which helped increase farmers' income and guarantee food security. To date, the team has promoted this bio-control technology to more than 300 ha of experience fields of Chinese chives, tomato, potato, peanut and tobacco in 13 Cities and 9 Provinces, which showed good effects of the technology. Besides, the technology has provided help to over 300 peasant households and gained economic benefits of over USD2.36 million (RMB15 million).





Price Update

Ex-works prices of major insecticides in China, 8 June, 2021





9.1-1 Ex-works prices of major insecticides in China, 8 June, 2021

Product	20210508		20210608	
	Original Price (RMB/t)	Price (USD/t)	Original Price (RMB/t)	Price (USD/t)
95% Abamectin technical	680,000	104,784.65	660,000	103,819.29
97% Acephate technical	50,000	7,704.75	50,000	7,865.1
95% Acetamiprid technical	113,000	17,412.74	115,000	18,089.73
95% Azocyclotin technical	151,000	23,268.36	151,000	23,752.6
95% Beta-Cypermethrin technical	183,000	28,199.4	182,000	28,628.96
97% Bifenthrin technical	220,000	33,900.92	230,000	36,179.45
95% Buprofezin technical	56,500	8,706.37	54,500	8,572.96
98% Carbofuran technical	105,000	16,179.98	105,000	16,516.71
98% Chlorfenapyr technical	315,000	48,539.95	290,000	45,617.57
95% Chlorfluazuron technical	520,000	80,129.44	520,000	81,797.02
95% Chlorpyrifos technical	39,000	6,009.71	38,000	5,977.47
94% Cypermethrin technical	86,000	13,252.18	89,000	13,999.87
99% Cyromazine technical	116,000	17,875.03	122,000	19,190.84
98% Deltamethrin technical	600,000	92,457.05	605,000	95,167.68
95% Diafenthiuron technical	140,000	21,573.31	135,000	21,235.76
98% Dimethoate technical	31,000	4,776.95	31,000	4,876.36
70% Emamectin benzoate technical	665,000	102,473.23	660,000	103,819.29
92% Fenvalerate technical	118,000	18,183.22	118,000	18,561.63
95% Fipronil technical	560,000	86,293.24	565,000	88,875.61
98% Hexaflumuron technical	435,000	67,031.36	435,000	68,426.35
97% Imidacloprid technical	123,000	18,953.69	130,000	20,449.25
98% Isoprocarb technical	41,000	6,317.9	40,000	6,292.08





95% Lambda-cyhalothrin technical	174,000	26,812.54	175,000	27,527.84
90% Malathion technical	28,000	4,314.66	28,000	4,404.45
95% Methidathion technical	90,000	13,868.56	90,000	14,157.18
Methomyl 90% SP	65,000	10,016.18	63,000	9,910.02
98% Methomyl technical	76,000	11,711.23	74,000	11,640.34
75% Omethoate technical	33,500	5,162.19	33,500	5,269.62
90% Phoxim technical	37,000	5,701.52	37,000	5,820.17
90% Profenofos technical	62,000	9,553.89	61,500	9,674.07
90% Propargite technical	38,000	5,855.61	38,000	5,977.47
95% Pymetrozine technical	185,000	28,507.59	170,000	26,741.33
95% Pyridaben technical	95,000	14,639.03	95,000	14,943.69
97% Spirodiclofen technical	141,000	21,727.41	141,000	22,179.58
85% Triazophos technical	50,000	7,704.75	50,000	7,865.1

Source:CCM

Note:Ex-works price includes VAT.

Shanghai Port prices of major insecticides in China, 8 June, 2021



9.2-1 Shanghai Port prices of major insecticides in China, 8 June, 2021

Product	20210508		20210608	
	Original Price (RMB/t)	Price (USD/t)	Original Price (RMB/t)	Price (USD/t)
95% Abamectin technical	680,500	104,861.7	660,500	103,897.94
97% Acephate technical	50,500	7,781.8	50,500	7,943.75
95% Acetamiprid technical	113,500	17,489.79	115,500	18,168.38
95% Azocyclotin technical	151,500	23,345.4	151,500	23,831.25
95% Beta-Cypermethrin technical	183,500	28,276.45	182,500	28,707.61
97% Bifenthrin technical	220,500	33,977.96	230,500	36,258.1
95% Buprofezin technical	57,000	8,783.42	55,000	8,651.61
98% Carbofuran technical	105,500	16,257.03	105,500	16,595.36
98% Chlorfenapyr technical	315,500	48,617	290,500	45,696.22
95% Chlorfluazuron technical	520,500	80,206.49	520,500	81,875.67
95% Chlorpyrifos technical	39,500	6,086.76	38,500	6,056.13
94% Cypermethrin technical	86,500	13,329.22	89,500	14,078.53
99% Cyromazine technical	116,500	17,952.08	122,500	19,269.49
98% Deltamethrin technical	600,500	92,534.09	605,500	95,246.33
95% Diafenthiuron technical	140,500	21,650.36	135,500	21,314.42
98% Dimethoate technical	31,500	4,853.99	31,500	4,955.01
70% Emamectin benzoate technical	665,500	102,550.27	660,500	103,897.94
92% Fenvalerate technical	118,500	18,260.27	118,500	18,640.28
95% Fipronil technical	560,500	86,370.29	565,500	88,954.26
98% Hexaflumuron technical	435,500	67,108.41	435,500	68,505
97% Imidacloprid technical	123,500	19,030.74	130,500	20,527.91
98% Isoprocarb technical	41,500	6,394.95	40,500	6,370.73



95% Lambda-cyhalothrin technical	174,500	26,889.59	175,500	27,606.49
90% Malathion technical	28,500	4,391.71	28,500	4,483.11
95% Methidathion technical	90,500	13,945.6	90,500	14,235.83
Methomyl 90% SP	65,500	10,093.23	63,500	9,988.67
98% Methomyl technical	76,500	11,788.27	74,500	11,719
75% Omethoate technical	34,000	5,239.23	34,000	5,348.27
90% Phoxim technical	37,500	5,778.57	37,500	5,898.82
90% Profenofos technical	62,500	9,630.94	62,000	9,752.72
90% Propargite technical	38,500	5,932.66	38,500	6,056.13
95% Pymetrozine technical	185,500	28,584.64	170,500	26,819.98
95% Pyridaben technical	95,500	14,716.08	95,500	15,022.34
97% Spirodiclofen technical	141,500	21,804.45	141,500	22,258.23
85% Triazophos technical	50,500	7,781.8	50,500	7,943.75

Source:CCM

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

FOB Shanghai prices of major insecticides in China, 8 June, 2021





9.3-1 FOB Shanghai prices of major insecticides in China, 8 June, 2021, USD/t

Product Category	20210508	20210608
95% Abamectin technical	102,064.01	101,128.62
97% Acephate technical	7,390.81	7,544.62
95% Acetamiprid technical	17,096.83	17,758.58
95% Azocyclotin technical	22,791.28	23,265.59
95% Beta-Cypermethrin technical	26,615.87	27,022.22
97% Bifenthrin technical	31,964.2	34,104.99
95% Buprofezin technical	8,630.09	8,503.74
98% Carbofuran technical	15,898	16,228.86
98% Chlorfenapyr technical	47,367.33	44,528.78
95% Chlorfluazuron technical	78,087.38	79,712.46
95% Chlorpyrifos technical	6,007.64	5,979.7
94% Cypermethrin technical	12,594.59	13,299.37
99% Cyromazine technical	16,931.07	18,168.77
98% Deltamethrin technical	86,892.96	89,439.08
95% Diafenthiuron technical	20,400.25	20,087.01
98% Dimethoate technical	4,644.37	4,741.03
70% Emamectin benzoate technical	99,816.2	101,128.62
92% Fenvalerate technical	17,220.17	17,578.54
95% Fipronil technical	84,081.54	86,596.23
98% Hexaflumuron technical	65,349.8	66,709.8
97% Imidacloprid technical	18,595.37	20,053.17
98% Isoprocarb technical	6,089.86	6,069.04
95% Lambda-cyhalothrin technical	25,314.93	25,989.32





90% Malathion technical	4,210.72	4,298.35
95% Methidathion technical	13,650.19	13,934.27
Methomyl 90% SP	9,903.85	9,804.01
98% Methomyl technical	12,577.24	12,505.51
75% Omethoate technical	5,005.74	5,109.92
90% Phoxim technical	5,672.12	5,790.16
90% Profenofos technical	9,125.4	9,241.53
90% Propargite technical	5,857.79	5,979.7
95% Pymetrozine technical	26,904.97	25,251.53
95% Pyridaben technical	14,399.46	14,699.13
97% Spirodiclofen technical	20,544.8	20,972.36
85% Triazophos technical	7,656.04	7,815.37

Source:CCM

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.



Journalist : Shiyun Lu, Yihua Huang

Editor : Yinghui He

Chief Editor : Anton Huang

Publisher : Kcomber Inc.

Kcomber's legal disclaimers

1. Kcomber guarantees that the information in the report is accurate and reliable to the best of its knowledge and experience. Kcomber defines the report as a consulting product providing information and does not guarantee its information is completely in accordance with the fact. Kcomber shall not have any obligations to assume any possible damage or consequences caused by subscribers' any corporate decisions based upon subscribers' own understanding and utilization of the report.

2. The complete copyright of the report is and will be held by Kcomber. Subscribers shall not acquire, or be deemed to acquire the copyright of the report.

3. The report provided by Kcomber shall be only used as source of subscriber's internal business decisions and shall not be used for any other purposes without Kcomber's prior written consent, unless stated and approved in license contracts signed by both parties. Subscribers shall not distribute, resell and disclose the whole report or any part of the report to third parties and shall not publish any article or report by largely or directly copying or citing the information or data based on Kcomber's report without the prior written consent of Kcomber.

4. **"Single User License"** means that there shall be only ONE person to receive, access and utilize the report. Subscriber can present the content of the report that marked the source from Kcomber to their internal colleagues for their internal communication and utilization, but cannot share the whole report to other individuals. Any citation, distribution, reselling and disclosure of the report as well as its partial content to any third party are prohibited, including but not limited to their parent companies or subsidiaries.

5. **"Corporate License"** means that subscriber shall not cite, distribute, resell the report or disclose information of the report to any third party without Kcomber's prior written consent, except subscribers' affiliates controlled with ownership of more than 50% of shares.

Kcomber Inc.

Any publication, distribution or copying of the content in this report is prohibited.

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