

# Herbicide China News 202107

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## Headline

FMC's applications for registering 2 bixlozone products may be approved for registration, including 96% bixlozone TC and bixlozone 36% SC (for treating annual broadleaf weeds on winter wheat field).

According to CCM's price monitoring, Chinese herbicide prices in end-July was basically the same over last month. But the price of organophosphorus herbicide shot up.

Luba Chem's application for the pesticide registration certificate of 97% topramezone TC has been passed the preliminary review of the Shandong Provincial Department of Agriculture and Rural Affairs, and the result and related materials have been submitted to MOA. If everything goes well, the company is expected to gain the registration certificate of Luba Chem within 2021 at the soonest.

To form the production capacity of 1,000 t/a triclopyr TC is one of the major tasks in Chongqing Runer's 15,000 t/a TC and intermediate synthesis and production project which will be located in Guanba Group, Wansheng Industrial Park, Chongqing Municipality. The 1,000 t/a triclopyr TC production capacity will be good for the development of Chongqing Runer as well as for the overall supply of the product in China.

It was learned from Inner Mongolia Laike in early-July that it was speeding up the construction of the 1,000 t/a propanil TC production line and supporting facilities, striving for completion at an early date. Once Inner Mongolia Laike's 1,000 t/a propanil TC production line is completed, it will be good for the development of the company and the overall supply of propanil TC in China.

Ningxia Yongnong, subsidiary Shangyu Yongnong, has finished building the 6,250 t/a methyldiethoxyphosphine production line and supporting environmental protection facilities which is part of its high-efficiency pesticide TC and intermediate project, and put them into trial run.

According to the import and export data sourced from Tranalysis, China exported 2,394.28 tonnes (actual volume) of 2,332.26 tonnes (100% AI volume) of dicamba to major destinations including the US, Argentina, Mexico, Vietnam, Paraguay and Ukraine in Q1 of 2021.

The ICAMA issued the 6th group of pesticides to be approved for registration of 2021, including 252 products, 5 among which containing cyhalofop-butyl. The registration of cyhalofop-butyl products in China is heating up.

The office of MOA issued an notice of strengthening oversight to effectively prevent safety risk of pesticides. 5 requirements are put forward in the notice, such as to implement the responsibility of work safety of pesticides, strengthen supervision and inspection of trade of pesticides, increase efforts in cracking down on illegal online sales of pesticides, reinforce guidance and supervision of pesticide application and improve the awareness of pesticide safety risk management.

MOF and MOA issued key policy for supporting agriculture of 2021, for better publicizing the policy to farmers and other sectors of the society and giving full play to the guiding role of the policy.







## Editor's Note

As for market dynamic, bixlozone may be registered in China for the first time because FMC's application for registering 2 products containing bixlozone was publicized.

As for price, according to CCM's price monitoring, Chinese herbicide prices in end-July was basically the same over last month. But the price of organophosphorus herbicide shot up.

As for company dynamic, Luba Chem's application for the registration of 97% topramezone TC passed first review of the Department of Agriculture and Rural Affairs of Shandong Province in May, 2021. Therefore, it is expected that the company will gained the registration certificate of topramezone TC within 2021. Inner Mongolia Laike is speeding up the construction of the 1,000 t/a propanil TC project for putting the production line into operation as soon as possible.

As for policy dynamic, the office of MOA issued an notice of strengthening supervision to effectively prevent safety risk of pesticides; MOF and MOA issued key policy for supporting agriculture of 2021, for better publicizing national policy for supporting and promoting agriculture to farmers and other sectors of the society and giving full play to the guiding role of the policy.

The USD/CNY exchange rate in this newsletter is USD1.00=CNY 6.4709 on 1 July, 2021, sourced from the People's Bank of China. All the prices mentioned in this newsletter will include the VAT, unless otherwise specified.





## Market analysis

### **Bixlozone to be approved for registration for first time in China**

Summary: FMC's applications for registering 2 bixlozone products may be approved for registration, including 96% bixlozone TC and bixlozone 36% SC (for treating annual broadleaf weeds on winter wheat field).

On 9 July, the Ministry of Agriculture and Rural Affairs (MOA) publicized the list of 26 new pesticides to be approved for registrations, according to related regulations, and opinions can be submitted from 9 July to 15 July, 2021. 2 bixlozone products from FMC Corporation (FMC) were on the list, such as 96% bixlozone TC and 36% bixlozone SC (for treating annual broadleaf weeds on winter wheat fields). Previously, there has not yet been any registration of bixlozone product in China. Once they are successfully registered, it will mark bixlozone's inroad to Chinese market.

Bixlozone is a new selective herbicides developed by FMC. It is applied in pre-emergence period, and can be transmitted to all parts of weeds by transpiration after being absorbed by root and budlet, thus curbing the biosynthesis of chlorophyll. Bixlozone is mainly used to prevent and control broadleaf and grassy weeds on rape fields. Its effect lasts for the whole growth stage of crops by once application. There are few reports about bixlozone in China, for the registration is still processing.





## 2.1-3 List of 26 pesticides to be approved for registration

No.	Applicant	Product	Treating target
1	Shaanxi Xianong Biological Science and Technology Co., Ltd.	Sanguinarine TK (sulfuric acid Sanguinarine 40%)	/
2	Shaanxi Xianong Biological Science and Technology Co., Ltd.	Sanguinarine-Veratrum nigrum rhizome extract SL (veratramine 0.5%, sulfuric acid Sanguinarine.5%)	Jujube red spider mite
3	Zhejiang Udragon Biotechnology Co., Ltd.	95% thiotraniliprole TC	/
4	Zhejiang Udragon Biotechnology Co., Ltd.	Thiotraniliprole 10% SC	Cabbage diamondback moth
5	Wuhan Kernel Bio-tech Co., Ltd.	Bacillus thuringiensis HAN055 WP (Bacillus thuringiensis HAN055 20 billion CFU/g)	Heterodera glycines Ichinohe, tomato root knot nematode
6	Guangdong Dafeng Plant Protection Technology Co., Ltd.	Cordyceps javanica lj01 100 billion spores/g TK	/
7	Guangdong Dafeng Plant Protection Technology Co., Ltd.	Cordyceps javanica lj01 WP (Cordyceps javanica lj01 200 billion spores/g)	Cabbage spodoptera litura
8	Nippon Soda Co., Ltd.	Picarbutrazox 97% TC	/
9	Nippon Soda Co., Ltd.	Picarbutrazox 10% SC	Cucumber downy mildew
10	Wuhan Kernel Bio-tech Co., Ltd.	Sphaerotheca amyloliquefaciens ZY-9-13 100 billion CFU/g TK	/
11	Wuhan Kernel Bio-tech Co., Ltd.	Sphaerotheca amyloliquefaciens ZY-9-13 WP (sphaerotheca amyloliquefaciens ZY-9-13 1 billion CFU/g)	Tobacco black shank
12	Zhongke Rongxin Biotechnology Co., Ltd.	Chitin oligosaccharide acetate TC (Chitin oligosaccharide 85%)	/
13	Zhongke Rongxin Biotechnology Co., Ltd.	Chitin oligosaccharide acetate SL (Chitin oligosaccharide 4.4%)	Tomato and pepper mosaic virus disease
14	Zhongke Rongxin Biotechnology Co., Ltd.	Amido oligosaccharide acetate TC (Amido oligosaccharide 75%)	/
15	Zhongke Rongxin Biotechnology Co., Ltd.	Amido oligosaccharide acetate SL (Amido oligosaccharide 5.8%)	Cabbage diamondback moth
16	Chengdu New Sun Crop Science Co., Ltd.	98% coronatine TC	/
17	Chengdu New Sun Crop Science Co., Ltd.	Coronatine 0.006% SL	Tomato and cotton growth regulator
18	FMC Corporation	96% bixlozone TC	/





19	FMC Corporation	Bixlozone 36% SC	Annual broadleaf weeds on winter wheat fields
20	Bayer AG	Sphaerotheca amyloliquefaciens QST713 1 billion CFU/g SC	Strawberry gray mold
21	Sichuan Baishi Dongwang Biotechnology Co., Ltd.	100 billion CFU/g Bacillus velezensis CGMCC No.14384 TK	/
22	Sichuan Baishi Dongwang Biotechnology Co., Ltd.	Bacillus velezensis CGMCC No.14384 20 billion CFU/g WG	Cucumber and tobacco powdery mildew
23	Yunnan University	10 billion CFU/g Bacillus nematocid B16 TK	/
24	Yunnan University	Bacillus nematocid B16 500 million CFU/g DP	Tomato root-knot nematode
25	The Institute of Plant Protection, Jiangsu Academy of Agricultural Sciences	50 billion spores/g Cordyceps javanica JS001 TK	/
26	The Institute of Plant Protection, Jiangsu Academy of Agricultural Sciences	Cordyceps javanica JS001 50 billion spores/g OF	Tomato (protected areas) bemisia tabaci

Source:ICAMA

### Chinese herbicide prices keep stable MoM in end-July

Summary: According to CCM's price monitoring, Chinese herbicide prices in end-July was basically the same over last month. But the price of organophosphorus herbicide shot up.

According to CCM's price monitoring, most ex-works prices of herbicides in China in end-July remained stable over last month, since the slack season of herbicide application has arrived and the demand reduced. But it is worth noting that the price of organophosphorus herbicide shot up. In July, China didn't reduce national work safety inspections. But the off chemical market led to low operating rate. The prices of basic chemical raw materials were still high. Companies at home and abroad were more willing to increase their stocks. Therefore, the prices of some low-inventory products stopped decreasing and even picked up after their inventory were consumed. Taking sterilant herbicide as an example, continuous export orders were received, resulting in low inventory in China.

Among organophosphorus herbicides, the ex-works price of glufosinate-ammonium TC in end-July was USD38,635/t (RMB250,000/t), surging by 28.21% MoM when measured by RMB. It was reported that the overall operating rate of glufosinate-ammonium TC in China now was not high, leading to tight supply and low inventory. However, producers have received many orders due to strong downstream demand, which pushed up the price of the products. Besides, the ex-works price of glyphosate TC in end-July was USD7,727/t (RMB50,000/t), up by 4.17% MoM when measured by RMB. The general supply of glyphosate TC was steady in July, with not so many ready products. Producers are







working mainly for accomplishing orders when the downstream demand was slack. As a result, the increase in the price of glyphosate TC slowed down.

According to CCM's price monitoring, the ex-works price of florasulam TC in end-July was USD74,178/t (RMB480,000/t), up by 4.35% MoM when measured by RMB.

### 2.2-3 Prices of major herbicides in China in end-July

Category	Product	Total content	Ex-works price on 25 July, RMB/t	USD/t	MoM change of RMB price	Ex-works price on 25 June, RMB/t	USD/t
Triazine herbicide	Atrazine	97%	20,500	3,168	0.00%	20,500	3,225
	Ametryn	95%	38,000	5,872	0.00%	38,000	5,977
Sulfonylurea herbicide	Nicosulfuron	95%	265,000	40,953	0.00%	265,000	41,685
	Quizalofop-P-ethyl	95%	170,000	26,271	0.00%	170,000	26,741
	Bensulfuron-methyl	96%	160,000	24,726	0.00%	160,000	25,168
Amide herbicide	Pretilachlor	95%	34,000	5,254	0.00%	34,000	5,348
	Acetochlor	92%	25,000	3,863	0.00%	25,000	3,933
	Metolachlor	97%	26,000	4,018	0.00%	26,000	4,090
Organophosphorus herbicide	Glufosinate-ammonium	95%	250,000	38,635	28.21%	195,000	30,674
	Glyphosate	95%	50,000	7,727	4.17%	48,000	7,550
Triazolopyrimidine-2-sulfonanilide herbicide	Florasulam	98%	480,000	74,178	4.35%	460,000	72,359

Source: CCM





## Company dynamics

### Luba Chem to gain registration certificate of topramezone TC within 2021 at soonest

Summary: Luba Chem's application for the pesticide registration certificate of 97% topramezone TC has been passed the preliminary review of the Shandong Provincial Department of Agriculture and Rural Affairs, and the result and related materials have been submitted to MOA. If everything goes well, the company is expected to gain the registration certificate of Luba Chem within 2021 at the soonest.

Shandong Luba Chemical Co., Ltd. (Luba Chem) announced in end-June, 2021 that its application for the pesticide registration certificate of 97% topramezone TC has been passed the preliminary review of the Shandong Provincial Department of Agriculture and Rural Affairs, and the result and related materials have been submitted to the Ministry of Agriculture and Rural Affairs (MOA). According to the *Regulation on Pesticide Administration* and the *Measures for the Administration of the Pesticide Registration* in force in China, MOA should finish technical examinations such as chemical, toxicology, environmental impact and sample of label of the products within 9 months after it receives the preliminary review result and applications from provincial agricultural departments, and passed the results to the Pesticide Registration Review Committee for final decision. This means that if everything goes well, Luba Chem will gain the registration certificate of topramezone TC in 2021 at the soonest. Notably, the chemical patent of topramezone in China has expired early on 8 Jan., 2018. But there has not yet been any domestic pesticide company that has obtained the registration certificate of topramezone TC.

Topramezone is a herbicide developed by BASF SE (BASF) of wide herbicidal spectrum, high activity and wide compoundability. Besides, it is an outstanding herbicide used to treat annual grassy and broadleaf weeds on corn fields. It is regarded as the safest herbicides used on corn field to date because it is safe to different corn varieties and succeeding crops.

Corn is one of the grain crops that are grown most widely on earth and the second biggest crops in China. According to the National Agro-Tech Extension and Service Center, nearly half of corn fields in China are suffering from weeds at different degrees. Therefore, pesticide companies have been competing for the market of herbicides used on corn fields. In light of its outstanding features, topramezone is thought highly in the corresponding market. In addition, the effects of some traditional sealing herbicides on corn fields such as acetochlor and atrazine start to reduce after being used for consecutive years, leading to the increase of resistant weeds and driving up the urge demand for new herbicides including topramezone.

As for registration of topramezone in China, before 8 Jan., 2018, there were only 2 registration certificates in China, and they were 97% topramezone TC and topramezone 30% SC from BASF. In theory, a large barrier for other companies to enter the topramezone market was moved out since the patent of the product in China expired. However, things turned embarrassed. It has been 3 years since the expiry of the patent, but there has not yet been





any other company that gained the registration certificate of topramezone TC, making BASF still the only one in China to have the certificate. That's why domestic companies have to cooperate with BASF to launch terminal topramezone formulation products.

In fact, BASF's development strategy of topramezone after patent expiry shows that the company continues to launch topramezone single-agent and terminal compound formulation products, thus to diversify product portfolio in China, and form partnership with strong Chinese pesticide companies to launch terminal compound formulation products. For example, BASF has authorized Chinese companies such as Jilin Jinqiu Pesticide Co., Ltd., Qingdao KingAgroot Resistant Weeds Control Co., Ltd., Shenzhen Noposion Agrochemicals Co., Ltd., Hunan Xinchangshan Agricultural Co., Ltd., Shandong Dehao Chemistry Co., Ltd., Shandong Binnong Technology Co., Ltd., Shanghai Lvze Biotechnology Co., Ltd., Tianjin Boke Technology Co., Ltd., Guangdong Foshan Yinghui Crop Science Co., Ltd., Anhui Huilong Group Youngsun Pesticides Co., Ltd., Shandong Wanhao Chemical Co., Ltd., Shandong Zhonghe Chemicals Co., Ltd., Anhui Jintudi Biotechnology Co., Ltd. and Shandong Cynda Chemical Co., Ltd. the use of topramezone TC for research and develop of terminal topramezone formulation and for application for registration certificate.

According to MOA, from 8 Jan., 2018 to 21 June, 2021 (since the expiry of the topramezone patent in China), there have been 17 terminal topramezone formulation products approved for registrations, and they are still valid.

Among these 17 formulation products, 1 is the topramezone·atrazine 310g/L SC from BASF, and the rest 16 are jointly launched by domestic companies and BASF.





## 3.1-3 Valid registration certificates of topramezone in China

No.	Certificate No.	Product name	Expiry date	Owner
1	PD20131925	97% Topramezone TC	2023/9/25	BASF SE
2	PD20131931	30% Topramezone SC	2023/9/25	BASF SE
3	PD20200632	Topramezone·atrazine 310g/L SC	2025/8/20	BASF SE
4	PD20181764	30% Topramezone SC	2023/5/16	Jilin Jinqiu Pesticide Co., Ltd.
5	PD20182446	30% Topramezone SC	2023/6/27	Qingdao KingAgroot Resistant Weeds Control Co., Ltd.
6	PD20183590	30% Topramezone SC	2023/8/20	Shenzhen Noposition Agrochemicals Co., Ltd.
7	PD20183631	4% Topramezone OF	2023/8/20	Hunan Xinchangshan Agricultural Co., Ltd.
8	PD20184182	26% Topramezone·atrazine OF	2023/9/25	Shandong Dehao Chemistry Co., Ltd.
9	PD20200043	30% Topramezone SC	2025/1/19	Shandong Cynda Chemical Co., Ltd.
10	PD20200044	30% Topramezone OF	2025/1/19	Shandong Binnong Technology Co., Ltd.
11	PD20200084	30% Topramezone SC	2025/3/22	Shanghai Lvze Biotechnology Co., Ltd.
12	PD20200107	43% Topramezone·atrazine SC	2025/3/22	Shandong Cynda Chemical Co., Ltd.
13	PD20200766	4% Topramezone OF	2025/9/17	Tianjin Boke Technology Co., Ltd.
14	PD20210058	25% Topramezone·nicosulfuron·atrazine OF	2026/1/13	Guangdong Foshan Yinghui Crop Science Co., Ltd.
15	PD20210062	28% Topramezone·terbuthylazine OF	2026/1/13	Jilin Jinqiu Pesticide Co., Ltd.
16	PD20210349	10% Topramezone OF	2026/3/10	Anhui Huilong Group Youngsun Pesticides Co., Ltd.
17	PD20210357	30% Topramezone·nicosulfuron·atrazine OF	2026/3/10	Shandong Wanhao Chemical Co., Ltd.
18	PD20210917	40% Topramezone·terbuthylazine SC	2026/6/10	Shandong Zhonghe Chemicals Co., Ltd.
19	PD20210942	33% Topramezone·terbuthylazine OF	2026/6/10	Anhui Jintudi Biotechnology Co., Ltd.

Source:ICAMA





2 reasons are accountable for no approved registration certificate of topramezone TC granted to domestic companies since the expiry of the patent:

1. Difficulties in producing topramezone TC;
2. High threshold for registration of pesticide TC products in China under new policy.

To be more specific, the obstacle lying in the technique is the largest barrier for domestic pesticide company to produce matured topramezone TC and enter the market, let alone apply for registration certificate.

Besides, the issuances of the new *Regulation on Pesticide Administration* and the *Measures for the Administration of the Pesticide Registration* have greatly raised the bar for registration of pesticide products. And the requirement for registration materials and review of TC products became stricter.

Good news is that Luba Chem's application for registering 97% topramezone TC has been submitted for approval of MOA, signifying a huge breakthrough in production and registration of topramezone TC in China. But there are still risks before the product is officially approved for registration.

### **Chongqing Runer to form production capacity of 1,000 t/a triclopyr TC**

Summary: To form the production capacity of 1,000 t/a triclopyr TC is one of the major tasks in Chongqing Runer's 15,000 t/a TC and intermediate synthesis and production project which will be located in Guanba Group, Wansheng Industrial Park, Chongqing Municipality. The 1,000 t/a triclopyr TC production capacity will be good for the development of Chongqing Runer as well as for the overall supply of the product in China.

It was learned from Chongqing Runer Technology Co., Ltd. (Chongqing Runer) on 18 June, 2021 that to form the production capacity of 1,000 t/a triclopyr TC is one of the major tasks in Chongqing Runer's 15,000 t/a TC and intermediate synthesis and production project which will be located in Guanba Group, Wansheng Industrial Park, Chongqing Municipality. It is worth mentioning that triclopyr is currently one of the high-profile herbicides with huge potential for both agro and non-agro purposes. Therefore, the 1,000 t/a triclopyr TC production capacity will be good for the development of Chongqing Runer as well as for the overall supply of the product in China.

Triclopyr is a pyridinocarboxylic acid herbicide and the raw material to produce other herbicides of the same category such as triclopyr-butotyl. It is mainly used for non-agro purposes such as preventing broadleaf weeds on uncultivated land, weeding and killing shrub before afforestation, maintaining fire lane, nurturing pine trees and reforming forestry. Besides, it can be also used for agro purposes such as treating broadleaf weeds on wheat, corn and sorghum.

Different with staple herbicides including glyphosate and glufosinate-ammonium, triclopyr has relatively small market







share. Now its market in China is developing and not many domestic companies have formed large-scale production capacity of triclopyr TC. That's why Chongqing Runer's 1,000 t/a production capacity will promote the development of triclopyr market in China.

Chongqing Yier Shuangfeng Science & Technology Co., Ltd. (Chongqing Yier), parent company of Chongqing Runer, will provide the production technique of triclopyr TC. Chongqing Yier has not only mastered matured production technique of triclopyr TC but also obtained the registration certificate of 99% triclopyr TC (certificate number: PD20171104). It is estimated that Chongqing Yier will transfer the registration certificate of 99% triclopyr TC to Chongqing Runer, which will give qualification for Chongqing Runer to produce and sell triclopyr TC.

Established in Sept., Chongqing Runer is located in Guanba Group, Wansheng Industrial Park, Chongqing Municipality. It is 100% owned by Chongqing Yier, and Chongqing Yier was acquired by Sichuan Guoguang Agrochemical Co., Ltd. (Sichuan Guoguang) in Nov., 2019 and became a wholly-owned subsidiary of Sichuan Guoguang. Therefore, Sichuan Guoguang indirectly holds 100% shares of Chongqing Runer.

Through acquiring Chongqing Yier, Sichuan Guoguang's plant growth regulator sector is consolidated and improved, and Sichuan Guoguang's businesses is branched out to herbicide. After acquiring 100% shares of Chongqing Yier, Sichuan Guoguang made another investment decision based on its sustainable development, that was signing investment agreement with Wansheng Economic and Technological Development Zone of Chongqing Municipality. According to its own resources and Chongqing Yier's resources, Sichuan Guoguang planned to make Chongqing Yier responsible for building a new production base and forming large-scale production capacity in Wansheng Industrial Park. Therefore, Chongqing Yier reported the 15,000 t/a TC and intermediate synthesis and production project after its establishment.

Plant growth regulators and herbicides are engaged in this project.

- Herbicides: 1,000 t/a triclopyr TC, 2,000 t/a fluroxypyr-mepthyl TC and 500 t/a fluroxypyr TC;
- Plant growth regulators: chlormequat TC, diethyl aminoethyl hexanoate TC, forchlorfenuron TC, 6-benzylamino-purine TC and 4-indol-3-ylbutyric acid TC.

Notably, Chongqing Yier will also provide the production techniques of fluroxypyr-mepthyl TC and fluroxypyr TC for Chongqing Runer. By 18 June, 2021, Chongqing Yier was going through related administrative procedures for this 15,000 t/a TC and intermediate synthesis and production project, striving for starting construction within 2021.

### **Inner Mongolia Laike's 1,000 t/a propanil TC production being line under construction**

Summary: It was learned from Inner Mongolia Laike in early-July that it was speeding up the construction of the 1,000 t/a propanil TC production line and supporting facilities, striving for completion at an early date. Once Inner Mongolia





Laike's 1,000 t/a propanil TC production line is completed, it will be good for the development of the company and the overall supply of propanil TC in China.

It was learned from Inner Mongolia Laike Crop Protection Co., Ltd. (Inner Mongolia Laike) in early-July that it was speeding up the construction of the 1,000 t/a propanil TC production line and supporting facilities, striving for completion at an early date. Inner Mongolia Laike said that the 1,000 t/a propanil TC production line and supporting facilities are included in its 12,000 t/a fine chemical project. Once the construction of the production line is completed, the company's overall production capacity will be improved and propanil TC will become its new growth point.

Since its establishment in Tenggei Economic and Technological Development zone, Alashan League, Inner Mongolia Autonomous Region in 2015, Inner Mongolia Laike has planned 3 major projects, such as the 40,000 t/a fine chemical project (phase I), 12,000 t/a fine chemical project (phase II) and 7,200 t/a fine chemical project (phase III). But not all these 3 projects has started construction.

Products engaged in the phase I project are 10,000 t/a spermine, 500 t/a quinclorac TC, 600 t/a 3,7-dichloro-8-chloro methyl quinoline, 1,000 t/a tricyclazole TC, 1,000 t/a 4-methyl-2-benzothiazolehydrazine, 1,000 t/a dicamba TC, 1,000 t/a 2,5-dichloro-methoxycarboxylic acid and 24,900 t/a by-products. In fact, Inner Mongolia Laike didn't build the production lines of 7 major products in phase I according to market change and decided that these production lines will not be built in the future.

Products engaged in the phase II project are 7,800 t/a main products including 2,000 t/a metaldehyde TC, 2,000 t/a isoprothiolane TC, 1,800 t/a niclosamide ethanolamine TC, 1,000 t/a propanil TC and 1,000 t/a lily aldehyde and 4,200 t/a by-products.

As for the progresses of the phase II project, the 2,000 t/a metaldehyde TC and 2,000 t/a metaldehyde TC production lines have completed and passed acceptance check; the 1,800 t/a niclosamide ethanolamine TC production line has completed and been put into trial run since April, 2020 but not yet passed acceptance check; and the 1,000 t/a propanil TC production line is under construction currently. However, Inner Mongolia Laike has decided not to build the production line of 1,000 t/a lily aldehyde.

Products engaged in the phase III project include 500 t/a bispyribac-sodium TC, 100 t/a pyribenzoxim TC, 1,000 t/a DL-4-Chlorophenylglycine, 1,500 t/a chlorfenapyr TC, 500 t/a halide intermediate, 1,500 t/a prochloraz TC, 1,000 t/a cyhalofop-butyl TC, 50 t/a warfarin TC, 50 t/a bromadiolone TC, 50 t/a brodifacoum TC, 50 t/a coumatetralyl TC, 100 t/a chlorfluazuron TC, 400 t/a coumatetralyl TK and 400 t/a warfarin TK.





Similar to phase II, construction of phase III will be launched by groups. First group includes 500 t/a bispyribac-sodium TC, 100 t/a pyribenzoxim TC, 1,000 t/a DL-4-Chlorophenylglycine, 1,500 t/a chlorfenapyr TC, 500 t/a halide intermediate, 1,500 t/a prochloraz TC and 1,000 t/a cyhalofop-butyl TC; second group includes 50 t/a warfarin TC, 50 t/a bromadiolone TC, 50 t/a brodifacoum TC, 50 t/a coumatetralyl TC, 100 t/a chlorfluazuron TC, 400 t/a coumatetralyl TK and 400 t/a warfarin TK. By early-July, 2021, Inner Mongolia Laike has not yet started constructing the phase III project.

Propanil is a selective amide herbicide that takes effect through contact action. It is mainly used to prevent and control barnyardgrass, monochoria vaginalis, Sagittaria trifolia Linn., fescue, water pepper, cress and water purslane on rice fields, and is safe to rice. Propanil still has certain market share in light of its outstanding performance, though it has been launched for a long time. Compared with other amide herbicides such as acetochlor, alachlor and metolachlor, there are less domestic companies that have formed large-scale production capacity of propanil TC. Major propanil TC producers in China are Ningxia Gerui Fine Chemical Co., Ltd., Hegang TH-UNIS Insight Pesticide Chemistry Co., Ltd. and Hegang Xuxiang Heyou Chemical Co., Ltd.

Once Inner Mongolia Laike's 1,000 t/a propanil TC production line is completed, it will be good for the development of the company and the overall supply of propanil TC in China. Notably, another Chinese pesticide company called Jingma Chemicals Co., Ltd., has planned to build the production capacity of 400 t/a propanil TC in its new plant in Chengnan Industrial Area, Longyou County, Quzhou City, Zhejiang Province after relocation.

### **Ningxia Yongnong's methyldiethoxyphosphine production line put into trial run**

Summary: Ningxia Yongnong, subsidiary Shangyu Yongnong, has finished building the 6,250 t/a methyldiethoxyphosphine production line and supporting environmental protection facilities which is part of its high-efficiency pesticide TC and intermediate project, and put them into trial run.

In early-July, Shangyu Yongnong Chemical Co., Ltd. (Shangyu Yongnong) announced that its wholly-owned subsidiary Ningxia Yongnong Bioscience Co., Ltd. (Ningxia Yongnong) has completed the building of the 6,250 t/a methyldiethoxyphosphine production line and supporting environmental protection facilities which is part of its high-efficiency pesticide TC and intermediate project, and put them into trial run since 22 June, 2021. It is worth mentioning that methyldiethoxyphosphine is an key intermediate for production of glufosinate-ammonium TC. According to the plan, the majority of Ningxia Yongnong's 6,250 t/a methyldiethoxyphosphine will be mainly produced for Shangyu Yongnong's glufosinate-ammonium TC production in headquarters base in Shangyu Economic and Technological Development Zone, Hangzhou Bay, Shangyu District, Shaoxing City, Zhejiang Province, and the rest will be for sale.

Being one of the leading pesticide companies in China, Shangyu Yongnong is a conglomerate focusing on R&D,





production and sales. According to the *Top 100 Pesticide Sellers in China of 2021* released by the China Crop Protection Industry Association in May, Shangyu Yongnong ranked 25. After years of development, Shangyu Yongnong has built up a product portfolio covering various pesticide TC, intermediate and formulations, with core as glufosinate-ammonium TC.

Located in New Material Park, Ningdong Energy and Chemical Base, Ningxia Hui Autonomous Region, Ningxia Yongnong was set up by Shangyu Yongnong in Oct., 2018. According to the planning, Ningxia Yongnong is responsible for building the new production base for Shangyu Yongnong in New Material Park, and the industrial layout of the new base will be focus on glufosinate-ammonium industry.

In fact, Shangyu Yongnong has had 2 production bases including one in Shangyu Economic and Technological Development Zone and another in Yinhai Chemical Industrial Park, Tushan Town, Laizhou City, Shandong Province, before making Ningxia Yongnong responsible for building a new base. Shangyu Yongnong's headquarters production base is in Shangyu Economic and Technological Development Zone, in which the company has the production capacity of 2,400 t/a glufosinate-ammonium TC that is under normal operation, but the methyldiethoxyphosphine production line there has been suspended.

With total investment USD231.81 million (RMB1.5 billion), this high-efficiency pesticide TC and intermediate project is the first project launched by Ningxia Yongnong, and will lay the foundation for the future development of Ningxia Yongnong. Construction of this high-efficiency pesticide TC and intermediate project will be divided into 3 phases to build a total of 25,000 t/a methyldiethoxyphosphine and 20,000 t/a glufosinate-ammonium TC capacities.

- Phase I: one 6,250 t/a methyldiethoxyphosphine production line and supporting facility;
- Phase II: one 6,250 t/a methyldiethoxyphosphine production line and one 10,000 t/a glufosinate-ammonium TC production line and supporting facilities;
- Phase III: two 6,250 t/a methyldiethoxyphosphine production lines and one 10,000 t/a glufosinate-ammonium TC production line and supporting facilities.

Besides building production capacity, Ningxia Yongnong has received some resources and pesticide registration certificates transferred from Shangyu Yongnong. To be more specific, by early-July, Ningxia Yongnong has obtained 8 registration certificates such as 95% glufosinate-ammonium TC, diquat 40% TK, 98% mesotrione TC, 95% haloxyfop-R-methyl TC, 98% tebufenozide TC, 89% profenofos TC, 90% fluazifop-P-butyl TC and 95% pendimethalin TC.

From the perspective of the whole industrial chain of pesticide, intermediate is in the middle, and the demand for pesticide intermediate mainly comes from pesticide TC market. Therefore, the price change of pesticide intermediate ultimately influences the market of downstream pesticide TC. Methyldiethoxyphosphine is an important intermediate





for producing glufosinate-ammonium TC. As a result, the supply of methyldiethoxyphosphine is one of the factors that causes effect to the glufosinate-ammonium TC market. According to the planned purposes, the 6,250 t/a methyldiethoxyphosphine in the phase I will be mainly for Shangyu Yongnong's production of glufosinate-ammonium TC in headquarters base, and the rest for sale; the 6,250 t/a methyldiethoxyphosphine in the phase II will be mainly for glufosinate-ammonium TC production in the same base, and the rest for sale; the 12,500 t/a methyldiethoxyphosphine in the phase III will be for the same purposes as that in the phase II.

Once Ningxia Yongnong's high-efficiency pesticide TC and intermediate project is completed and put into production, it will further consolidate Shangyu Yongnong's leading position in glufosinate-ammonium market and help the company become a world class supplier of glufosinate-ammonium.

In answer to the question that if the greatly-increased glufosinate-ammonium TC capacity will bring about huge pressure on sale, Shangyu Yongnong said confidently that it would expand its customer base of the product and excavate the terminal market.

For excavating terminal market, Shangyu Yongnong has been paying more efforts in R&D and launch of various new terminal glufosinate-ammonium formulations and been expanding the registered purposes of the formulations to realize value maximization. By end-July, 2021, except the 95% glufosinate-ammonium TC registration certificate that has been transferred to Ningxia Yongnong, Shangyu Yongnong remained the direct owner of 8 other registration certificates of glufosinate-ammonium products, including 95% glufosinate-ammonium TC, 50% glufosinate-ammonium TK, glufosinate-ammonium 10% AS, oxyfluorfen·glufosinate-ammonium 32% WP, glufosinate-ammonium 50% SG, glufosinate-ammonium 200g/L AS, glufosinate-ammonium·glyphosate 36% AS and glufosinate-ammonium 40% SG. This makes Shangyu Yongnong one of the Chinese companies that have obtained most registration certificate of glufosinate-ammonium products.

Among them, glufosinate-ammonium 200g/L AS has been seeing the increase of registered preventive targets since the certificate was issued, and it has become one of the registered terminal glufosinate-ammonium formulations that has most registered purposes. To be more detailed, the product now is approved to treat weeds in citrus orchard, coffee park, papaya orchard, banana orchard, tea garden, mulberry orchard and red bayberry orchard, weeds on cowpea fields and uncultivated fields. Moreover, the purposes of this product is still expanding, with the application for treating weeds on winter rape in process. By contrast, most of companies only registered terminal glufosinate-ammonium formulations for preventing weeds on one crops or only on uncultivated lands, in order to save registrations fees and time.







## Paraquat and Pyridine

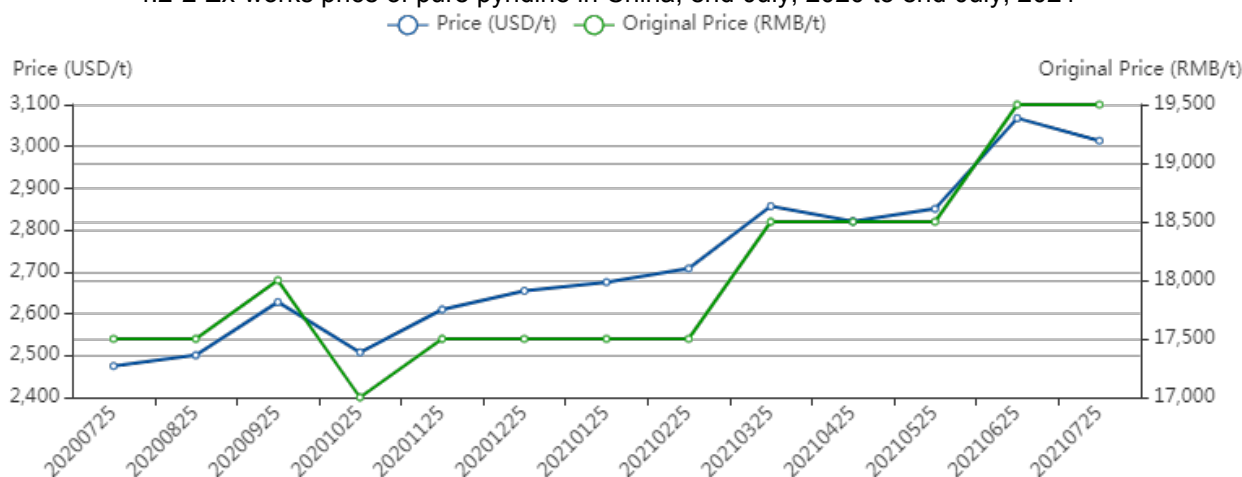
### Some diquat-labeled products sold in China are actually paraquat

Recently, researchers from the People's Hospital of Fuyang City, Anhui Province brought 28 bottles of diquat (200.0 g/L) to test the actual ingredient and concentration of the samples by using HPLC-MS and analyze the test result and the sources of the samples, in order to know exactly the ingredient and concentration of herbicide sold and labeled as diquat on package in China and provide experimental basis for precise treatment of acute diquat poisoning. According to the result, diquat was tested in 23 (82.14%) of the total 28 samples and paraquat was tested in 5 (17.86%) samples. No sample contained both diquat and paraquat. That means that some diquat-labeled products sold in China are actually paraquat. Besides, most tested products, both diquat and paraquat, had lower concentration than the 200.0 g/L indicated on the label.

### Pure pyridine price in end-July remains same over last month

According to CCM's price monitoring, China's ex-works price of pure pyridine in end-July was USD3,013/t (RMB19,500/t), remaining stable MoM when measured by RMB. The off season of herbicide application has arrived in China, so that the downstream demand for pure pyridine was slack. It is expected that the price of pure pyridine would keep steady in the short term.

4.2-2 Ex-works price of pure pyridine in China, end-July, 2020 to end-July, 2021



Source: CCM





## Import and export

### Export of Chinese dicamba to major destinations in Q1 2021

Summary: According to the import and export data sourced from Tranalysis, China exported 2,394.28 tonnes (actual volume) of 2,332.26 tonnes (100% AI volume) of dicamba to major destinations including the US, Argentina, Mexico, Vietnam, Paraguay and Ukraine in Q1 of 2021.

According to the import and export data sourced from Tranalysis, China exported 2,394.28 tonnes (actual volume) of 2,332.26 tonnes (100% AI volume) of dicamba to major destinations including the US, Argentina, Mexico, Vietnam, Paraguay and Ukraine in Q1 of 2021. The data was updated to 13 July, 2021.

**Details are as follow:**

#### Dicamba formulation

- Main products: dicamba 480g/L AS and dicamba 70% WG
- Main destinations: 27.87 tonnes (actual volume) of Chinese dicamba formulation were exported to main destinations in Q1 of 2021, at an average export price of USD7.23/kg. Vietnam was the largest importer of Chinese dicamba formulation in the period, with the amount of 16.00 tonnes (actual volume), accounting for 57.41% of China's total export volume of dicamba formulation to main destinations.
- Main exporters: Companies exporting dicamba formulation in Q1 of 2021 were Jiangsu Changqing Agrochemical Co., Ltd., Ningbo Agroskyrun Trading Co., Ltd. and Shandong Weifang Rainbow Chemical Co., Ltd. All the dicamba formulation exported to main destinations in the period were from these 3 companies.

#### Dicamba TC

- Main products: 98% dicamba TC
- Main destinations: China exported a total of 2,366.41 tonnes (actual volume) of dicamba TC to main destinations in Q1 of 2021, at an average export price of USD12.29/kg. The US was the largest importer of dicamba TC from China, with the amount of 2,007.81 tonnes (actual volume), making up 84.85% of China's total export of dicamba TC to main destinations in the period.
- Main exporters: Top 3 exporters of dicamba TC in Q1 of 2021 were Jiangsu Changqing Agrochemical Co., Ltd., Jiangsu Youjia Crop Protection Co., Ltd. and Sharda Cropchem Limited, with an amount of 2,072.81 tonnes (actual volume), making up 87.59% of China's total export of dicamba TC to main destinations in the period.





## 5.1-3 China's export volume of dicamba technical and dicamba formulations, 2016–Q1 2021, tonne

Year	98% TC	96% TC	95% TC	48% AS	70% WDG	70% WSG	Total
2016	8,002.948	/	/	523.387	1.000	68.177	<b>8,595.512</b>
2017	19,883.670	/	/	572.714	1.500	37.604	<b>20,495.488</b>
2018	15,406.550	0.12	2.4	573.972	14.460	16.934	<b>16,014.436</b>
2019	4,679.423	128.8	16	468.909	2.424	9.744	<b>5,305.300</b>
2020	5,716.955	/	/	260.878	/	87.940	<b>6,065.773</b>
Q1 2021	2,366.411	/	/	21.825	6.044	/	<b>2,394.280</b>

Source:Tranalysis

Note:The data, updated to March 2021, were sourced from Tranalysis on 13 July, 2021

## 5.1-4 China's exports of dicamba 48% AS by month, Q1 2021

Month	Quantity, tonne	Price, USD/kg	Value, USD
January	16.000	6.66	106,560
February	5.825	6.01	35,037
March	0.000	/	0
<b>Total</b>	<b>21.825</b>	<b>6.49</b>	<b>141,597</b>

Source:Tranalysis

Note:The data, updated to March 2021, were sourced from Tranalysis on 13 July, 2021

## 5.1-5 China's exports of 98% dicamba technical by month, Q1 2021

Month	Quantity, tonne	Price, USD/kg	Value, USD
January	521.691	13.93	7,267,762
February	929.600	11.70	10,873,731
March	915.119	11.96	10,942,035
<b>Total</b>	<b>2,366.411</b>	<b>12.29</b>	<b>29,083,528</b>

Source:Tranalysis

Note:The data, updated to March 2021, were sourced from Tranalysis on 13 July, 2021



## 5.1-6 China's exports of dicamba 48% AS by destination, Q1 2021

No.	Destination	Quantity, tonne	Price, USD/kg	Value, USD
1	Vietnam	16.000	6.66	106,560
2	Paraguay	5.825	6.01	35,037
<b>Total</b>		<b>21.825</b>	<b>6.49</b>	<b>141,597</b>

Source:Tranalysis

Note:The data, updated to March 2021, were sourced from Tranalysis on 13 July, 2021

## 5.1-7 China's exports of 98% dicamba technical by destination, Q1 2021

No.	Destination	Quantity, tonne	Price, USD/kg	Value, USD
1	The US	2,007.811	12.31	24,724,147
2	Argentina	328.000	12.20	4,000,861
3	Mexico	24.000	12.03	288,840
4	Paraguay	5.600	10.55	59,080
5	Ukraine	1.000	10.60	10,600
<b>Total</b>		<b>2,366.411</b>	<b>12.29</b>	<b>29,083,528</b>

Source:Tranalysis

Note:The data, updated to March 2021, were sourced from Tranalysis on 13 July, 2021

## 5.1-8 China's exports of dicamba 48% AS by exporter, Q1 2021

No.	Exporter	Quantity, tonne	Price, USD/kg	Value, USD
1	Shandong Weifang Rainbow Chemical Co., Ltd.	16.000	6.66	106,560
2	Ningbo Agroskyrun Trading Co., Ltd.	5.825	6.01	35,037
<b>Total</b>		<b>21.825</b>	<b>6.49</b>	<b>141,597</b>

Source:Tranalysis

Note:The data, updated to March 2021, were sourced from Tranalysis on 13 July, 2021



## 5.1-9 China's exports of 98% dicamba technical by exporter, Q1 2021

No.	Exporter	Quantity, tonne	Price, USD/kg	Value, USD
1	Jiangsu Changqing Agrochemical Co., Ltd.	1,173.272	12.18	14,285,685
2	Youjia Crop Protection Co., Ltd.	674.699	12.48	8,418,540
3	Sharda Cropchem Limited	224.840	12.18	2,739,642
4	Red Surcos Trade (Shanghai) Co., Ltd.	48.000	13.40	643,200
5	Shandong Weifang Rainbow Chemical Co., Ltd.	40.000	11.70	468,200
6	Nanjing Bioagriland Crop Care Co., Ltd.	34.400	11.02	379,000
7	Jiangsu Oubei Technology Co., Ltd.	32.000	11.51	368,440
8	Ningbo Agroskyrun Trading Co., Ltd.	5.600	10.55	59,080
	Others	133.600	12.89	1,721,741
	<b>Total</b>	<b>2,366.411</b>	<b>12.29</b>	<b>29,083,528</b>

Source:Tranalysis

Note:The data, updated to March 2021, were sourced from Tranalysis on 13 July, 2021





## Registration

### Registration of cyhalofop-butyl products in China heating up

Summary: The ICAMA issued the 6th group of pesticides to be approved for registration of 2021, including 252 products, 5 among which containing cyhalofop-butyl. The registration of cyhalofop-butyl products in China is heating up.

On 1 July, the Institute for the Control of Agrochemicals, Ministry of Agriculture and Rural Affairs of the People's Republic of China (ICAMA) issued the 6th group of pesticides to be approved for registration of 2021, including 252 products, 5 among which containing cyhalofop-butyl. The registration of cyhalofop-butyl products in China is heating up. The publicity of the list lasted from 1 to 7 July, 2021.

Detailed information about the 5 products containing cyhalofop-butyl is as following.

#### 6.1-3 5 cyhalofop-butyl products to be approved for registration in July, 2021

No.	Company name	Product	Preventive target
1	Anhui Jiuyi Agriculture Co., Ltd.	Quinclorac-cyhalofop-butyl-penoxsulam 20% OF (quinclorac 11%, cyhalofop-butyl 8% and penoxsulam 1%)	Annual weeds on direct-seeding rice fields
2	Shandong Qilin Agrochemical Co., Ltd.	Cyhalofop-butyl 30% EC	Annual grassy weeds and grassy weeds such as barnyardgrass and Chinese sprangletop on direct-seeding rice fields
3	Nanjing Huiyu Agricultural Chemical Co., Ltd.	Propanil-cyhalofop-butyl 42% EC (propanil 36% and cyhalofop-butyl 6%)	Annual grassy weeds on direct-seeding rice fields
4	Jiangsu Yangzhou Suling Agricultural Chemicals Co., Ltd.	Metamifop-cyhalofop-butyl 15% EC (cyhalofop-butyl 7.5% and metamifop 7.5%)	Annual grassy weeds on direct-seeding rice fields
5	Shandong Lvbang Crop Science Co., Ltd.	Metamifop-cyhalofop-butyl 20% EC (metamifop 10% and cyhalofop-butyl 10%)	Annual grassy weeds on direct-seeding rice fields

Source:ICAMA

According ICAMA, by 9 July, 2021, there were 404 valid registrations of cyhalofop-butyl products in China, including 32 TC, 225 single-agent and 147 formulation products. Commonly-seen single-agent products are cyhalofop-butyl 40% OF, cyhalofop-butyl 30% OF and cyhalofop-butyl 30% EC; and cyhalofop-butyl is mostly compounded with penoxsulam, metamifop and bispyribac-sodium in these 147 formulation products.



In terms of forms, the registered cyhalofop-butyl products take 7 forms mainly. OF has the most with the number of 155, accounting for 38.37% of China's total cyhalofop-butyl registrations. The second is EC with the number of 114, making up 28.22%.

In terms of certificate holder, altogether 219 companies that have obtained the registration certificates of cyhalofop-butyl products, 12 of which have 5 or more than 5 certificates. Notably, Zhejiang Tianfeng Biological Sciences Co., Ltd. has 10 registration certificates of cyhalofop-butyl products in China, topping others.

In terms of registration time, the year 2018 witnessed a boom of registering cyhalofop-butyl products, and 125 registrations were approved. By 9 July, there have been 19 cyhalofop-butyl products registered in China, signifying that cyhalofop-butyl products keeps being diversified in China.





## 6.1-5 Active ingredients of registered cyhalofop-butyl formulations in China, by 9 July, 2021

No.	Active ingredient	Certificate number
1	Cyhalofop-butyl	225
2	Penoxsulam·cyhalofop-butyl	52
3	Metamifop·cyhalofop-butyl	25
4	Bispyribac-sodium·cyhalofop-butyl	11
5	Pyribenzoxim·cyhalofop-butyl	10
6	Cyhalofop-butyl·fenoxaprop-P-ethyl	10
7	Quinclorac·cyhalofop-butyl	8
8	Pyrazosulfuron-ethyl·cyhalofop-butyl	3
9	Propanil·cyhalofop-butyl	3
10	Penoxsulam·pyrazosulfuron-ethyl·cyhalofop-butyl	3
11	Quinclorac·metamifop·cyhalofop-butyl	2
12	Fluroxypyr-mepthyl·cyhalofop-butyl	2
13	Penoxsulam·pyribenzoxim·cyhalofop-butyl	2
14	Penoxsulam·cyhalofop-butyl	2
15	Pyrazosulfuron-ethyl·pyribenzoxim·cyhalofop-butyl	1
16	Pretilachlor·pyribenzoxim·cyhalofop-butyl	1
17	Pretilachlor·penoxsulam·cyhalofop-butyl	1
18	Propanil·cyhalofop-butyl	1
19	Metamifop·fluroxypyr-mepthyl·cyhalofop-butyl	1
20	Quinclorac·pyrazosulfuron-ethyl·cyhalofop-butyl	1
21	Halauxifen-methyl·cyhalofop-butyl	1
22	Pyribenzoxim·cyhalofop-butyl·bentazone	1
23	Bispyribac-sodium·pyrazosulfuron-ethyl·cyhalofop-butyl	1





24	Penoxsulam·fluroxypyr-mepthyl·cyhalofop-butyl	1
25	Penoxsulam·cyhalofop-butyl·bensulfuron-methyl	1
26	Penoxsulam·bispyribac-sodium·cyhalofop-butyl	1
27	Penoxsulam·carfentrazone-ethyl·cyhalofop-butyl	1
28	Clomazone·fluroxypyr-mepthyl·cyhalofop-butyl	1
<b>Total</b>		<b>372</b>

Source:ICAMA

#### 6.1-6 Forms of registered cyhalofop-butyl products in China, by 9 July, 2021

No.	Form	Certificate number
1	OF	155
2	EC	114
3	EW	74
4	TC	32
5	WP	14
6	ME	12
7	SC	3
<b>Total</b>		<b>404</b>

Source:ICAMA





## 6.1-7 Companies with 5 or more than 5 registration certificates of cyhalofop-butyl in China, by 9 July, 2021

No.	Certificate holder	Certificate number
1	Zhejiang Tianfeng Biological Sciences Co., Ltd.	10
2	Anhui Senfon Biochemical Co., Ltd.	9
3	Anhui Zhongbang Biological Engineering Co., Ltd.	9
4	ADAMA Huifeng (Jiangsu) Co., Ltd.	7
5	Anhui Sanonda Biotechnology Co., Ltd.	7
6	Jiangxi Zhongxun Agri-science Co., Ltd.	7
7	Xianglin Mefront Biotechnology (Huai'an) Co., Ltd.	7
8	Anhui Shanghe Woda Biotechnology Co., Ltd.	6
9	Hefei Xingyu Chemical Co., Ltd.	6
10	Qingdao KingAgroot Resistant Weeds Control Co., Ltd.	6
11	Anhui Meiland Agricultural Development Co., Ltd.	5
12	Jilin Bada Pesticide Co., Ltd.	5

Source: ICAMA





## 6.1-8 Number of cyhalofop-butyl registrations approved from 2006 to 2021, by 9 July, 2021

Year	Certificate number
2006	2
2009	1
2011	4
2012	14
2013	33
2014	40
2015	54
2016	24
2017	61
2018	125
2019	4
2020	23
2021 (by 9 July)	19
<b>Total</b>	<b>404</b>

Source: ICAMA





## Policy

### MOA to put more effort into oversight for effectively preventing pesticide safety risk

Summary: The office of MOA issued an notice of strengthening oversight to effectively prevent safety risk of pesticides. 5 requirements are put forward in the notice, such as to implement the responsibility of work safety of pesticides, strengthen supervision and inspection of trade of pesticides, increase efforts in cracking down on illegal online sales of pesticides, reinforce guidance and supervision of pesticide application and improve the awareness of pesticide safety risk management.

On 9 July, the office of the Ministry of Agriculture and Rural Affairs (MOA) issued an notice of strengthening supervision to effectively prevent safety risk of pesticides. 5 requirements are put forward in the notice, such as to implement the responsibility of work safety of pesticides, strengthen supervision and inspection of trade of pesticides, increase efforts in cracking down on illegal online sales of pesticides, reinforce guidance and supervision of pesticide application and improve the awareness of pesticide safety risk management.

#### Implement the responsibility of work safety of pesticides

Local pesticide supervision department will strengthen monitoring and guidance on producing companies of high-toxicity and high-risk pesticides. A thorough inspection will be launch to check if producing companies engaged in high-toxic pesticides, hazardous chemicals and inflammable and explosive raw materials have obtained relevant registration certificates, production permits or met production standards, to check if they have production and sales ledgers and electric sourcing system, to check if the production of pesticide TC (TK) and the sub-contract production are legal and to check if the company quality management systems are complete. Illegal productions and trades will be dealt with. Pesticide companies will be urged to fulfill the responsibility of work safety and environmental protection to prevent work safety accidents.

#### Strengthen supervision and inspection of trade of pesticides

Designated sales, counters, ledgers, real-name purchase and sourcing management of restricted pesticides such as that are of high toxicity and high risk will be checked, and illegal acts will be dealt with. Resolution will be made to fight the unlicensed mobile vendors to prevent the circulation of forged and fake pesticides. Besides, supervision of pesticides for export only including paraquat will be strengthened.

#### Increase efforts in cracking down on illegal online sales of pesticides

According to the *Measures for the Administration of Pesticide Business Licensing*, online sales of restricted pesticides are not allowed, and pesticide business certificate should be obtained before other pesticides are sold







online. When necessary, local governments can work with the departments for market regulation, public security and industry and information to crack down on the illegal sales of pesticides online.

### **Strengthen oversight and guidance on pesticide application**

More efforts will be paid in supervising and checking the application of pesticides used on cowpea, Chinese chives and celery. Besides, guidance will be given to farmers for scientific application of pesticides, including prohibiting the use of nationally-banned pesticides, following the specifications on the labels and implementing the safety interval system of pesticides. Supervision on pesticide applications of vegetable production bases, leading producing companies and specialized farmer cooperatives should be improved, especially the records of pesticide application and the implementation of safety interval system.

### **Improve awareness of pesticide safety risk management**

Propaganda of the *Regulation on Pesticide Administration* and related regulations will be increased to further improve the awareness of the rule of law and the thinking of the rule of law of agricultural departments, the awareness of safety risk prevention during administrative approval, executive law enforcement, industrial management and technical guidance and the law-abiding and work safety consciousness of pesticide producers, traders and users. Local governments should shoulder the responsibility of supervising and managing pesticides within their territories to guarantee work safety of agriculture, quality safety of agricultural products and safety of ecology and environment and effectively prevent phytotoxicity accident and poisoning accident of pesticides.

## **Policy supporting agriculture of 2021 issued by 2 ministries**

Summary: MOF and MOA issued key policy for supporting agriculture of 2021, for better publicizing the policy to farmers and other sectors of the society and giving full play to the guiding role of the policy.

On 2 July, the Ministry of Finance (MOF) and the Ministry of Agriculture and Rural Affairs (MOA) jointly released the key policy for supporting agriculture of 2021, for better publicizing the policy to farmers and other sectors of the society and giving full play to the guiding role of the policy. The policy contains 9 parts such as development of grain production, protection and quality improvement of farm lands, innovative development of seed industry, healthy development of animal husbandry, improvement of whole industrial chain of agriculture, cultivation of novel operation entities, protection and utilization of agricultural resources, disaster prevention and reduction for agriculture and rural living environment improvement.

More attention should be paid to the following aspects:

1. Integrated development of agricultural industries





Central fund for integrated development of industries should be arranged to guide local governments to focus on leading industries, optimize industrial layout, promote overall connection, build 50 national modern agricultural industrial parks, 50 advantaged characteristic industrial clusters, 298 agriculturally-superior counties, so as to achieve better agricultural industrial forms, layouts and structures in villages. Provinces to be guided to target the development of whole industrial chain of agriculture based on individual advantages and resources, define leading industries and development priority to build a modern village industrial system with basis as industrially-superior counties, drive as industrial park, core as industrial cluster, echeloned layout of province and counties and integrated promotion, so as to boost the cultivation of improved products, improve quality, foster brand, promote standardized production and increase industrial development quality efficiency and competition. The central funds will provide financial support to the construction of national modern agricultural industrial parks, advantaged characteristic industrial clusters and agriculturally-superior counties by year and category. Novel application of funds will be encouraged, and methods such as direct granting of subsidy, government purchasing services, subsidy granted after construction and replacing subsidy by reward to attract investment from finance and social capital, so as to promote the reasonable sharing of added benefit between market investment entities and farmers and increase the internal vitality and competitiveness of agriculture. A batch of industrial parks of grain, seed and beef as well as industrial cluster will be built.

## 2. Disaster relief for agricultural production

The central funds will properly give subsidies for prevention of natural and biological disasters that bring impact to agricultural production and for recovery after disasters to local governments. The subsidies can be used for buying materials for prevention of severe natural and biological disasters that bring impact to agricultural production and materials for resuming agricultural production, warehouses for storing grass for disaster prevention and animal protection in pasturing areas and warm sheds and forage grass for emergency.

## 3. Subsidy for agricultural premium

The central funds will provide subsidy for agricultural premiums for rice, wheat, corn, cotton, potato, oil-bearing crops, sugar-bearing crops, reproductive pigs, cows, growing and fattening pigs, forest, highland barley, yak, Tibetan sheep and natural rubber and productions of rice, wheat and corn seeds, based on the subsidies granted by local government. The areas covered by the full cost and planting income insurances of 3 major food crops will be expanded. Demonstrations of rewarding and granting subsidy to insurance for local characteristic agricultural products from central government will continue.





## News in Brief

### Fengle Seed to increase capital of Fengle Agrochemical

Hefei Fengle Seed Co., Ltd. (Fengle Seed) issued announcement of capital increase of its wholly-owned subsidiary on 29 June. According to the announcement, Fengle Seed will increase the capital of Anhui Fengle Agrochemical Co., Ltd. (Fengle Agrochemical) by USD16.23 million (RMB105 million). Once completed, Fengle Agrochemical's registered capital will be raised from USD39.41 million (RMB255 million) to USD55.63 million (RMB360 million); Fengle Agrochemical will remain wholly-owned subsidiary of Fengle Seed, the scope of consolidated statement will not be changed and there will not be any impact on the company's finance and operation. Fengle Seed said that the original capital of Fengle Agrochemical failed to meet its demand for development, and the increased capital would be for replenishing funds for operation, reducing asset-liability ratio, improving profitability and promoting overall development.

### Registration of Luzhou Oriental's carfentrazone-ethyl TC approved

It is learned from the Ministry of Agriculture and Rural Affairs on 6 July that according to the *Regulation on Pesticide Administration* and the *Measures for the Administration of the Pesticide Registration*, 177 applications for pesticide registrations from 107 companies such as Weifang Honor Biotechnology Co., Ltd. and 52 registration changes from 41 companies such as Yifan Biotechnology Group Co., Ltd. have been approved by the National Pesticide Registration Appraisal Committee, corresponding pesticide registration certificates and labels have been issued and paper labels will not be issued anymore. The 53% carfentrazone-ethyl TK (certificate number: PD20210996) from Oriental (Luzhou) Agrochemical Co., Ltd. (Luzhou Oriental) is one of the 177 products.

### Hefei Xingyu to build 15,000 t/a selective herbicide and intermediate project in future 2 years

Zhejiang Wynca Chemical Group Co., Ltd. (Zhejiang Wynca) said in early-July that its holding subsidiary Hefei Xingyu Chemical Co., Ltd. (Hefei Xingyu) will build a 15,000 t/a selective herbicide and intermediate project in Yumen City, Gansu Province in the future 2 years. Products such as bentazone and nicosulfuron will be engaged. It is expected that phase I of the project will be completed and put into operation in 2022, which will further diversify the company's product portfolio of selective herbicides.

### Anhui Guangxin predicts net profit increase of over 100% in H1 2021

On 13 July, Anhui Guangxin Agrochemical Co., Ltd. (Anhui Guangxin) issued the performance estimation for H1 of 2021, predicting that the net profit attributable to shareholders of listing companies during the period would increase from 114.81% to 128.90% YoY; and the improvement would be 139.59% to 156.71% YoY after deducing non-recurring profit and loss. Anhui Guangxin ascribed the increase to that:

- 1. the growth of sales revenue in H1 of 2021 led to the improvement in net profit;
- 2. the mitigation of the global pandemic during the report period and the recover of domestic economic resulted





in good chemical market condition, thus driving up the trading volumes and prices of some products of Anhui Guangxin.

### **MOA to increase support for technological innovation of pesticide industry**

In early July, the Ministry of Agriculture and Rural Affairs (MOA) gave an answer to the suggestion of promoting development of pesticide industry and increasing the quality efficiency and competitiveness of agriculture. It was mentioned in the answer that MOA attached high importance to the technological innovation of pesticide industry and would continue increasing investment in R&D of pesticides. Next step, MOA will rally support from related departments and make good use of the existing projects for increasing protection abilities of plants and animals to improve pesticide innovation capability and innovation methods, so as to build and develop a group of pesticide innovation engineering centers. The project of modern agricultural technological system will be launched and experts will be supported to focus on solving core technological difficulties. The cooperation between research institutes and companies will be strengthened, the integration of production entities, universities and research institutes will be boosted and the combination of innovation will be built based on the principles of mutual complementarity in the interest of common development, resources and risks sharing and mutual benefit. Efforts will be made to construct technologically-oriented pesticide companies with strong abilities in innovation, leading and competitiveness. Besides, MOA will request the Ministry of Science and Technology to take advantage of the key project of prevention and control of non-point source and heavy metal pollution of agriculture and development of green inputs to support the innovation and industrialization of environmental-friendly and pollution-free pesticides, thus promoting the green development of pesticides. Moreover, MOA will further improve related regulations based on thorough research and opinions from industrial association and pesticide companies, and reduce unnecessary repeated tests to lower the burden of companies, under the precondition of safety and high efficiency of pesticides, thus promoting the sustainable and healthy development of pesticide industry.

### **Ningxia Wynca's glufosinate-ammonium and diethyl ester project to go into trial run at end of 2021**

It is learned from Zhejiang Wynca Chemical Group Co., Ltd. in the middle of July that phase I (3,000 t/a glufosinate-ammonium and diethyl ester) of the 6,000 t/a glufosinate-ammonium and diethyl ester project of Ningxia Wynca Technology Co., Ltd. (Ningxia Wynca) was expected to be put into trial run at the end of 2021.

### **Focus of reducing fertilizers and pesticides to be changed from economic crops to field crops**

The development and planning department of the Ministry of Agriculture and Rural Affairs said on 16 July that China has met the expectation of the project to reduce uses and increase efficiencies of fertilizers and pesticides by the end of 2020, after 5 years of efforts, with the usage amounts of fertilizers and pesticides down significantly and utilization ratio up greatly, which effectively promoted the high-quality development of crop farming. During the 14th Five-Year Plan period, the action to reduce uses and increase efficiency of fertilizers and pesticides will be carried out thoroughly, with the theme of developing agriculture by quality and green technology and there will be 3 changes:





- Target will be changed from "reduction of the total amount" to "reduction of intensity";
- Method for incremental control will be changed to that for inventory reduction;
- Focus will be changed from economic crops to field crops.

### **Weifang Xinlu's diquat and haloxyfop-R-methyl projects pass acceptance check**

On 20 July, the environment protection acceptance results of Weifang Xinlu Chemical Co., Ltd. (Weifang Xinlu)'s 3 projects were issued on website, and the results were approvals. Weifang Xinlu is a subsidiary of Shandong Luba Chemical Co., Ltd. The 3 projects were the 43,000 t/a pyridinium chloride series products project (which produces 43,000 tonnes of pyridinium chloride products per year), the phase I of the project for high-efficiency and low-toxicity pesticides such as 3,000 t/a diquat, 2,000 t/a fluroxypyr-meptyl and 3,000 t/a haloxyfop-R-methyl (which produces 3,000 t/a haloxyfop-R-methyl TC and 3,000 t/a diquat TC per year) and the phase I of the 30,000 t/a pesticide and intermediate project (which produces 2,000 t/a fluroxypyr-octyl TC).





## Price Update

### Ex-works prices of key herbicide raw materials in China, 8 July, 2021

#### 9.1-1 Ex-works prices of key herbicide raw materials in China, 8 July, 2021

Raw Materials	20210608		20210708	
	Original Price (RMB/t)	Price (USD/t)	Original Price (RMB/t)	Price (USD/t)
98% Glycine	19,000	2,988.74	25,000	3,863.45
92% Iminodiacetonitrile	9,200	1,447.18	9,300	1,437.2
99% Isopropylamine	10,000	1,573.02	9,900	1,529.93
98% N-(Phosphonmethyl) Iminodiacetic acid	25,000	3,932.55	27,000	4,172.53
99% Phosphorus trichloride	7,610	1,197.07	6,375	985.18
99.9% Pyridine	19,500	3,067.39	19,500	3,013.49

Source:CCM

Note:Ex-works price includes VAT.

### Ex-works prices of main herbicides in China, 8 July, 2021





## 9.2-1 Ex-works prices of main herbicides in China, 8 July, 2021

Product	20210608		20210708	
	Original Price (RMB/t)	Price (USD/t)	Original Price (RMB/t)	Price (USD/t)
92% Acetochlor technical	25,000	3,932.55	25,000	3,863.45
97% Atrazine technical	20,500	3,224.69	20,500	3,168.03
96% Bensulfuron-methyl technical	165,000	25,954.82	160,000	24,726.08
92% Butachlor technical	25,000	3,932.55	24,500	3,786.18
95% Clomazone technical	108,000	16,988.61	108,000	16,690.1
95% Cyhalofop-butyl technical	168,000	26,426.73	172,000	26,580.54
97% Diuron technical	36,500	5,741.52	36,500	5,640.64
98% Fenclorim technical	125,000	19,662.74	122,000	18,853.64
95% Fenoxaprop-P-ethyl technical	200,000	31,460.39	200,000	30,907.6
96% Fluroxypyr technical	178,000	27,999.75	170,000	26,271.46
95% Fomesafen technical	89,000	13,999.87	89,000	13,753.88
95% Glyphosate technical	47,000	7,393.19	50,000	7,726.9
95% Haloxyfop-P-methyl technical	184,000	28,943.56	190,000	29,362.22
97% Metolachlor technical	26,000	4,089.85	26,000	4,017.99
95% Metsulfuron-methyl technical	138,000	21,707.67	138,000	21,326.25







Product	20210608		20210708	
	Original Price (RMB/t)	Price (USD/t)	Original Price (RMB/t)	Price (USD/t)
95% Nicosulfuron technical	270,000	42,471.53	265,000	40,952.57
97% Oxyfluorfen technical	150,000	23,595.29	150,000	23,180.7
95% Pendimethalin technical	48,000	7,550.49	48,000	7,417.82
95% Pretilachlor technical	34,000	5,348.27	34,000	5,254.29
97% Pyrazosulfuron-ethyl technical	345,000	54,269.18	345,000	53,315.61
80% Quinclorac technical	132,000	20,763.86	132,000	20,399.02
95% Quizalofop-P-ethyl technical	170,000	26,741.33	170,000	26,271.46
95% Tribenuron-methyl technical	155,000	24,381.8	155,000	23,953.39
95% Trifluralin technical	46,000	7,235.89	46,000	7,108.75

Source:CCM

Note:Ex-works price includes VAT.

### Shanghai Port prices of main herbicides in China, 8 July, 2021



## 9.3-1 Shanghai Port prices of main herbicides in China, 8 July, 2021

Product	20210608		20210708	
	Original Price (RMB/t)	Price (USD/t)	Original Price (RMB/t)	Price (USD/t)
92% Acetochlor technical	25,500	4,011.2	25,500	3,940.72
97% Atrazine technical	21,000	3,303.34	21,000	3,245.3
96% Bensulfuron-methyl technical	165,500	26,033.47	160,500	24,803.35
92% Butachlor technical	25,500	4,011.2	25,000	3,863.45
95% Clomazone technical	108,500	17,067.26	108,500	16,767.37
95% Cyhalofop-butyl technical	168,500	26,505.38	172,500	26,657.81
97% Diuron technical	37,000	5,820.17	37,000	5,717.91
98% Fenclorim technical	125,500	19,741.4	122,500	18,930.91
95% Fenoxaprop-P-ethyl technical	200,500	31,539.04	200,500	30,984.87
96% Fluroxypyr technical	178,500	28,078.4	170,500	26,348.73
95% Fomesafen technical	89,500	14,078.53	89,500	13,831.15
95% Glyphosate technical	47,500	7,471.84	50,500	7,804.17
95% Haloxyfop-P-methyl technical	184,500	29,022.21	190,500	29,439.49
97% Metolachlor technical	26,500	4,168.5	26,500	4,095.26
95% Metsulfuron-methyl technical	138,500	21,786.32	138,500	21,403.51



Product	20210608		20210708	
	Original Price (RMB/t)	Price (USD/t)	Original Price (RMB/t)	Price (USD/t)
95% Nicosulfuron technical	270,500	42,550.18	265,500	41,029.84
97% Oxyfluorfen technical	150,500	23,673.94	150,500	23,257.97
95% Pendimethalin technical	48,500	7,629.14	48,500	7,495.09
95% Pretilachlor technical	34,500	5,426.92	34,500	5,331.56
97% Pyrazosulfuron-ethyl technical	345,500	54,347.83	345,500	53,392.88
80% Quinclorac technical	132,500	20,842.51	132,500	20,476.29
95% Quizalofop-P-ethyl technical	170,500	26,819.98	170,500	26,348.73
95% Tribenuron-methyl technical	155,500	24,460.45	155,500	24,030.66
95% Trifluralin technical	46,500	7,314.54	46,500	7,186.02

Source:CCM

Note:Port price equals the ex-factory price plus the transport fee from the factory to the port, and the ex-factory price includes VAT.

### FOB Shanghai prices of main herbicides in China, 8 July, 2021





## 9.4-1 FOB Shanghai prices of main herbicides in China, 8 July, 2021, USD/t

Product	20210608	20210708
92% Acetochlor technical	3,991.05	3,920.93
97% Atrazine technical	3,191.67	3,135.59
96% Bensulfuron-methyl technical	25,407.21	24,209.36
92% Butachlor technical	3,991.05	3,845.78
95% Clomazone technical	16,687.77	16,394.55
95% Cyhalofop-butyl technical	24,956.41	25,097.77
97% Diuron technical	5,750.24	5,649.2
98% Fenclorim technical	19,288.31	18,498.54
95% Fenoxaprop-P-ethyl technical	30,761.25	30,220.74
96% Fluroxypyr technical	27,395.85	25,712.2
95% Fomesafen technical	13,781.3	13,539.15
95% Glyphosate technical	8,003.52	8,354.32
95% Haloxyfop-P-methyl technical	28,313.69	28,717.9
97% Metolachlor technical	4,144.03	4,071.21
95% Metsulfuron-methyl technical	21,276.95	20,903.09
95% Nicosulfuron technical	41,469.33	39,989.25
97% Oxyfluorfen technical	22,300.38	21,908.54
Paraquat 42% TK	3,272.08	2,192.65
95% Pendimethalin technical	7,509.42	7,377.47
95% Pretilachlor technical	5,367.81	5,273.49
97% Pyrazosulfuron-ethyl technical	52,942.27	52,012.02
80% Quinclorac technical	20,359.12	20,001.39
95% Quizalofop-P-ethyl technical	26,172.07	25,712.2





95% Tribenuron-methyl technical	23,877.48	23,457.93
95% Trifluralin technical	6,954.39	6,832.19

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.*



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