

# Herbicides China Monthly Report 202404

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## Headline

In April, MoM price changes of major herbicides TC in China averaged a negative 0.66%; the overall downtrend slowed. Many herbicides TC had stable price or experienced small price fluctuations.

In April, MoM price changes in major raw materials of herbicides TC averaged a nearly 11% increase, mainly supported by a surge of liquid chlorine price. However, the prices of many raw materials still decreased, such as liquid ammonia, sodium hydroxide and chloroacetic acid. It is expected that the prices of some raw materials will keep going down due to insufficient demand.

From the beginning of 2023 to date, the ex-works price of S-metolachlor TC has been on the decline in general due to quick capacity expansion in China. During the past six months, several leading domestic pesticide enterprises revealed progresses of their S-metolachlor related projects.

In April, overall operating rate of Chinese producers of main herbicides TC improved slightly, yet rates of the majority of these herbicides kept steady under slack demand. Specifically, the rate of dinitroaniline, amide and triazine herbicides TC producers remained at a low level.

In April, Huai'an Glory and Hubei Zhongxun updated progresses of their metamifop TC projects.

On 3 April, NDRC, jointly with other five government organs, released 30 specific measures to promote green, low-carbon and high-quality development in Inner Mongolia Autonomous Region.

On 29 March, MARA released information of pesticide products that it had planned to approve of registration (3rd-batch this year), which include 99 herbicide products. The majority of the to-be-approved herbicide products are of low toxicity and the most popular form is EC.

In April, the FOB price of paraquat TK edged down; the price of paraquat formulations was quite stable. It is expected that paraquat TK price will become steady or see small drops in the short term.

In the past six months, diquat trade was relatively weak due to limited demand both at home and abroad. After a quickened price fall in Q1 2024, the price of diquat TK slipped by 0.5% MoM in April and hit a historic low.

In Q1 2024, export volume of herbicide formulations from China grew by some 56% YoY. In March alone, the export volume expanded some 51% YoY, yet the value shrank by 2% YoY.







### Editor's note

In April, many herbicides TC had stable price or experienced small price fluctuations. MoM price changes of major herbicides TC in China averaged a negative 0.66%, up 0.94 percentage points from the previous month. The price of S-metolachlor TC still witnessed a price fall, continuing the general downtrend in Q1 2024; a main cause of the price downtrend is the quick capacity expansion in domestic market. The price of diquat TK slipped in April and hit a historic low. The FOB price of paraquat TK edged down, while that of paraquat formulations was quite stable. As regards major herbicide raw materials, most materials still experienced price decline, such as liquid ammonia, sodium hydroxide and chloroacetic acid, but a surge of liquid chlorine price brought the average MoM price changes of these raw materials to a nearly 11% positive. It is expected that the prices of some raw materials will keep going down due to insufficient demand. This month, overall operating rate of main herbicides TC improved slightly.

Regarding company dynamics, Huai'an Glory revealed that its new metamifop TC line was under environmental protection acceptance check, and Hubei Zhongxun published the EI report of its metamifop TC-related project.

Regarding latest policy, to promote green, low-carbon and high-quality development in Inner Mongolia Autonomous Region, the NDRC and other five government organs jointly issued the *Notice Regarding Policy Measures for Supporting Green, Low-Carbon and High-Quality Development in Inner Mongolia Autonomous Region*.

Regarding pesticide registration, MARA released in late March information of pesticide products that it had planned to approve of registration (3rd-batch this year), which include 99 herbicide products. The majority of the to-be-approved herbicide products are of low toxicity and the most popular form is EC. Of these products, glufosinate-P is the most popular active ingredient, and topramezone-terbuthylazine mixture comes next.

Regarding exports, China exported 524,436 tonnes of herbicide formulations in Q1 2024, up 56% YoY. In March alone, the export volume expanded some 51% YoY, yet the value shrank by 2% YoY.

*The USD/CNY exchange rate in this newsletter is USD1.00 = CNY 7.0938 on 1 April, 2024, sourced from the People's Bank of China. All the prices mentioned in this newsletter will include the VAT, unless otherwise specified.*





## Market analysis

### Prices of many herbicides TC slip or stabilise in April

Summary: In April, MoM price changes of major herbicides TC in China averaged a negative 0.66%; the overall downtrend slowed. Many herbicides TC had stable price or experienced small price fluctuations.

In April, MoM price changes of major herbicides TC in China averaged a negative 0.66%, up 0.94 percentage points from the previous month. There were mixed price trends; many herbicides TC had stable price or experienced small price fluctuations under lukewarm sales.

**Organophosphorus herbicides:** Glyphosate TC and glufosinate-ammonium TC had different price trends. Ex-works price of the former reversed the previous downtrend and increased by 2.35% MoM, as market supply was quite small and production costs rose. In contrast, the price of glufosinate-ammonium TC kept declining with a 4.07% MoM decrease. Currently, general operating rate of glufosinate-ammonium TC producers is stable; downstream demand is not large and the producers are reluctant to sell at a low price, which explains the weak market. It is believed that the price of glyphosate TC will stabilise or move slightly upwards, since the majority of raw materials of organophosphorus herbicides have stable price or small increases in the price.

**Sulfonylurea herbicides:** The majority of sulfonylurea herbicides TC had stable price, as producers kept quite steady production and the intermediates experienced small price fluctuations. MoM price falls in pyrazosulfuron-ethyl TC, quizalofop-P-ethyl TC and bensulfuron-methyl TC were the result of dull demand.

**Phenoxyacid herbicides:** The price of 2,4-D TC dipped 0.61% MoM in April. Currently, domestic producers mainly arrange production schedules to cope with overseas demand. It is expected that the product will have stable price in the short term. The price of MCPA TC edged up this month.

**Dinitroaniline herbicides:** The price of trifluralin TC turned steady as limited inventory in the market depleted. The price of pendimethalin TC edged down this month, but it is possible that the price may go up, supported by replenishment orders from downstream formulation producers.

**Diphenyl ether herbicides:** The prices of fomesafen TC and oxyfluorfen TC fell by 8.30% and 2.72% MoM, respectively. This month, export orders were small and domestic trade decreased.

For amide, triazine and other herbicides, the price was basically stable. Specifically, clethodim producers restricted their operation; these producers were mainly supported by export orders and suffered pressures from growing production costs.





TABLE 1: Monthly ex-works prices of major herbicide TC products in China, April 2024

Product	Original price, RMB/t	Ex-works price, USD/t	MOM, %	YOY, %
97% Diuron technical	35,800	5,046.66	-0.72	-17.23
98% 2,4-D technical	13,000	1,832.59	-0.61	-22.85
97% Atrazine technical	29,000	4,088.08	0.00	-19.44
97% Metolachlor technical	35,000	4,933.89	0.00	-33.33
92% Butachlor technical	20,000	2,819.36	0.00	-20.79
95% Trifluralin technical	38,000	5,356.79	0.00	-6.17
97% Oxyfluorfen technical	121,600	17,141.73	-2.72	-28.47
95% Nicosulfuron technical	178,000	25,092.33	0.00	-5.12
95% Clodinafop-propargyl technical	170,000	23,964.59	0.00	-24.44
95% Fomesafen technical	122,780	17,308.07	-8.30	-8.68
95% Glufosinate ammonium technical	56,980	8,032.37	-4.07	-37.38
95% Metsulfuron-methyl technical	135,000	19,030.7	0.00	0.00
85%-90% Clethodim technical	65,500	9,233.42	0.00	-31.52
95% Pretilachlor technical	30,000	4,229.05	0.00	-11.24
95% Haloxyfop-P-methyl technical	104,400	14,717.08	-1.51	-36.01
95% Ametryn technical	40,000	5,638.73	0.00	-10.11
96% Bensulfuron-methyl technical	136,000	19,171.67	-1.45	-23.38
95% Cyhalofop-butyl technical	120,000	16,916.18	-0.50	-17.24
80% Quinclorac technical	133,000	18,748.77	0.00	-10.04
98% Fenclorim technical	104,000	14,660.69	4.00	-11.11
97% Pyrazosulfuron-ethyl technical	205,500	28,968.96	-4.42	-12.55
98% Florasulam technical	457,900	64,549.32	0.00	-10.87
95% Pendimethalin technical	56,100	7,908.31	-0.88	-8.41





97% MCPA technical	27,800	3,918.92	0.58	-37.53
95% Tribenuron-methyl technical	78,000	10,995.52	0.00	-33.62
95% Quizalofop-P-ethyl technical	165,000	23,259.75	-0.12	-22.35
92% Acetochlor technical	26,200	3,693.37	0.00	-13.39
95% Glyphosate technical	26,120	3,682.09	2.35	-22.61

Source:CCM

### Liquid chlorine price soared, yet most herbicides TC raw materials kept price downtrend

Summary: In April, MoM price changes in major raw materials of herbicides TC averaged a nearly 11% increase, mainly supported by a surge of liquid chlorine price. However, the prices of many raw materials still decreased, such as liquid ammonia, sodium hydroxide and chloroacetic acid. It is expected that the prices of some raw materials will keep going down due to insufficient demand.

In April, price downtrend of many major raw materials of herbicides TC continued, though the price of liquid chlorine soared by nearly 85% MoM, which brought the average price change to a positive 10.57% on a monthly basis. Pressures from the cost side mounted up, and profit margin in herbicides TC enterprises was brought down.

In chlor-alkali industry, the ex-works prices of sodium hydroxide and liquid ammonia slipped, while the ex-works price of liquid chlorine shot up with a support from demand side. This month, some liquid ammonia equipment in Shandong resumed production after maintenance. The improved supply caused the price fall. The sodium hydroxide price retreated as the supply was stable and downstream buyers placed orders on need-to basis. It is believed that price downtrend for the two products may continue. As regards liquid chlorine, the market saw decreased supply: operating rates of chlor-alkali enterprises in Shandong were lowered; operating rates of chlor-alkali and downstream enterprises in Jiangsu were not high, especially when downstream enterprises experienced workplace safety checks and they started to suspend or cut back operation. Meanwhile, demand for liquid chlorine from downstream sectors including epoxypropane and epichlorohydrin was in good condition, which encouraged liquid chlorine suppliers to offer higher quotations. It is estimated that liquid chlorine price may hardly see any more increase in the short term.

Regarding organic chemical materials, the ex-works prices of methanol and acetic acid went up in April, while the prices of chloroacetic acid and urotropine slipped due to slack demand. Particularly, methanol was in short supply, so its price rise continued.







TABLE 2: Ex-works prices of major raw materials of herbicides TC in China, April 2024

Product	Ex-works price, RMB/t	Ex-works price, USD/t	MOM, %
Acetic acid	3,460	487.75	13.07
Chloroacetic acid	3,125	440.53	-3.25
Liquid ammonia	2,743	386.68	-7.02
Liquid chlorine	360	50.75	84.62
Methanol	2,623	369.76	5.34
Phenol	7,608	1,072.49	-0.09
Sodium hydroxide	760	107.14	-6.52
Urotropine	6,300	888.1	-1.56

Source:CCM

### Downtrend of S-metolachlor price expected to continue under expanding capacity

Summary: From the beginning of 2023 to date, the ex-works price of S-metolachlor TC has been on the decline in general due to quick capacity expansion in China. During the past six months, several leading domestic pesticide enterprises revealed progresses of their S-metolachlor related projects.

S-metolachlor, an acetanilide herbicide, is an upgraded variety of metolachlor. The price of S-metolachlor TC in China has dipped since the beginning of 2024. According to CCM price monitoring, the April ex-works price of 97% S-metolachlor TC dropped to USD5,709/t (RMB40,500/t) in China, down 2.4% MoM and 19.0% YoY. In fact, the price downtrend has lasted for quite a while, at least starting from Jan. 2023, partly due to slack demand and partly because of the quick capacity expansion in domestic market. It is expected that the price downtrend will continue.

During the past six months, several leading domestic pesticide enterprises have revealed progresses of their S-metolachlor related projects:

- In Feb. 2024, Xiangshui Zhongshan Bioscience Co., Ltd. announced that it had completed the improvement of main works of its 10,000 t/a S-metolachlor project and the environmental protection improvement of wastewater treatment capability was under way; commissioning and acceptance check would be arranged after the full improvements are finished.
- In late Dec. 2023, Jiangsu Changqing Agrochemical (Nantong) Co., Ltd., a subsidiary of Jiangsu Changqing Agrochemical Co., Ltd. (Jiangsu Changqing), had the environmental impact (EI) report of its 5,000 t/a S-metolachlor TC (including supporting 4,022 t/a 2-methyl-6-ethylaniline) and by-products 1,380 t/a hydrochloric acid and 310 t/a sodium chloride expansion project approved by local government; another Jiangsu Changqing's subsidiary Changqing (Hubei) Bio-tech Co., Ltd. published the EI report of 5,000 t/a 2-methyl-6-ethylaniline project in Nov. 2023.
- In late Oct. 2023, Hangzhou Nutrichem Co., Ltd. announced that its 15,000 t/a S-metolachlor project passed completion-based



environmental protection acceptance check.

Besides, on 9 April, Nantong Jiangshan Agrochemical & Chemicals Co., Ltd. released the EI report of its 10,000 t/a green high-efficacy chiral pesticide S-metolachlor TC and by-products 4,000 t/a sodium chloride, 20,165 t/a hydrochloric acid and 2,446 t/a sodium hypochlorite technological transformation project. The company has planned to invest USD57.09 million (RMB404.98 million) to construct new production capacity of 10,000 t/a S-metolachlor, 1,500 t/a isobutyronitrile and 19,000 t/a chloroacetyl chloride, plus some 24,500 t/a by-product capacity.

**FIGURE 1:** Monthly ex-works price of 97% S-metolachlor technical in China, Jan. 2023–April 2024



Source:CCM



## Company and supply

### Overall operating rate of main herbicides TC improves slightly in April

Summary: In April, overall operating rate of Chinese producers of main herbicides TC improved slightly, yet rates of the majority of these herbicides kept steady under slack demand. Specifically, the rate of dinitroaniline, amide and triazine herbicides TC producers remained at a low level.

In April, overall operating rate of Chinese producers of main herbicides TC improved slightly, yet the majority of producers kept operation at a low level as the demand was still sluggish.

**Organophosphorus herbicides:** Operating rate of glyphosate TC producers was steady this month. Major producers such as Fuhua Tongda Chemical Co., Ltd., Hubei Xingfa Chemicals Group Co., Ltd. and Jiangsu Good Harvest-Weien Agrochemical Co., Ltd. had stable production, while Nantong Jiangshan Agrochemical & Chemicals Co., Ltd. adjusted the rate to some 80% from the previous full load. For glufosinate-ammonium TC producers, though they ran steady production on previous orders this month, they have been under pressures from cost side, along with a 4% MoM decrease in the ex-works price. Facing pressures from the cost side, some producers had enthusiasm for production dampened. In addition, Shandong Eshung Industrial Co., Ltd. plans to put its glufosinate-ammonium production equipment into maintenance. In the short term, glufosinate-ammonium supply will be affected.

**Phenoxyacid herbicides:** Operating rate of herbicides under this category remained low. Specifically, the operating rate of 2,4-D TC was still at a relatively low level. Currently, most producers have normal operation, as overseas demand has improved. The supply could satisfy downstream demand.

**Cyclohexanedione herbicides:** Operating rate of herbicides under this category remained low. Specifically, clethodim TC producers maintained basic operation; overall operating rate improved as the production line in Wuqiao Pesticides Co., Ltd. resumed operation.

For triazine, amide and dinitroaniline herbicides, operating rates are mainly decided by supply-demand dynamics. The producers maintained relatively low-level operating in April. The prices of main raw materials and intermediates for these herbicides were stable, which could not support their price and thus failed to raise producers' enthusiasm for production.



**TABLE 3:** Supply of main herbicides TC in China in April 2024

Category	Product	Average operating rate in April 2024	Supply situation in April 2024
Organophosphorus	Glyphosate TC	69%	Normal supply
Organophosphorus	Glufosinate-ammonium TC	60%	Normal supply
Dinitroaniline	Trifluralin TC	60%	Ample supply
Dinitroaniline	Pendimethalin TC	53%	Normal supply
Amide	Acetochlor TC	25%	Normal supply
Amide	Butachlor TC	30%	Normal supply
Amide	Metolachlor TC	30%	Normal supply
Triazine	Atrazine TC	45%	Normal supply
Phenoxyacid	2,4-D TC	30%	Normal supply
Cyclohexanedione	Clethodim TC	30%	Normal supply
Triazinone	Hexazinone TC	25%	Normal supply
Sulfonylurea	Nicosulfuron TC	35%	Normal supply

Note:1. The operating rates are the average of the rates in major producers, and the statistics are incomplete.

2. Combined with information on downstream orders, the supply situation is here classified into: tight supply, normal supply and ample supply.

Source:CCM

### Huai'an Glory's metamifop project under environmental protection acceptance check

Summary: In April, Huai'an Glory and Hubei Zhongxun updated progresses of their metamifop TC projects.

Early April, CCM learned that Jiangsu Flag Chemical Industry Co., Ltd.'s wholly-owned subsidiary Huai'an Glory Chemical Co., Ltd. (Huai'an Glory) had been conducting phase-based environmental protection acceptance check for the 2,700 t/a pesticides expansion and transformation project which involves production lines of 1,200 t/a metamifop, 1,500 t/a chlorantraniliprole and by-product capacity of 410 t/a hydrochloric acid and 425 t/a sodium sulphite. Also this month, Guangdong Zhongxun Agri-Science Corporation's subsidiary Hubei Zhongxun Thinkgreen Technology Co., Ltd. (Hubei Zhongxun) released the environmental impact (EI) report of its 850 t/a plant protection products and intermediate project. The company has planned to invest USD14.10 million (RMB100 million) to build the project (involving 300 t/a metamifop capacity); construction is scheduled to begin this month and be completed in Jan. 2026.

Currently, Chinese pesticide enterprises that have already built up metamifop production lines mainly include Jiangsu Fuding Chemical Co., Ltd. (with 200 t/a capacity) and Ningxia Lantian Agricultural Development Co., Ltd. (with 500 t/a capacity). And since 2023, new projects



with a plan to build metamifop TC capacity also include:

- 6,500 t/a Fine chemical intermediates project (Phase I) of Shandong Fengruntong New Material Co., Ltd.: On 1 Dec., 2023, EI report of the project was approved by local government. And by Feb. 2024, construction had started. Upon completion, the company will have capacity of 500 t/a metamifop, 3,500 t/a 2-chloro-3-methyl-4-(methylsulfonyl)benzoic acid, 1,000 t/a tembotrione, 1,000 t/a 2,6-dichlorobenzoxazole, and 500 t/a fenoxaprop-P-ethyl.
- Tembotrione and others production line transformation and expansion project of Jiangxi Zhonghe Biotechnology Co., Ltd.: In Nov. 2023, general information of the project was published. The company plans to construct production capacity of 2,000 t/a metamifop TC, 3,000 t/a tembotrione TC, 100 t/a phenylacetic acid, 300 t/a potassium hexafluorophosphate and 300 t/a isoxazolecarboxylic acid through this project. On 7 April, 2024, EI report (exposure draft) of the project was released.

Besides, Gansu West Xinyu Chemical Co., Ltd. has a 15,000 t/a pesticides TC, formulations and intermediates project under going.

Construction of the Phase I program started in mid-June 2021, and on 14 Aug. 2023, the company announced the Phase I lines had passed environmental protection acceptance check. According to the plan, the Phase II program involves 7,500 t/a capacity for pesticides TC, including 500 t/a metamifop, 1,000 t/a quizalofop-p-ethyl, 500 t/a quizalofop-p-tefuryl, 500 t/a penoxsulam, 2,000 t/a bentazone, 500 t/a fenoxaprop-p-ethyl, 1,000 t/a nicosulfuron, and 1,000 t/a fluroxypyr-meptyl.





## Policy

### 30 Measures rolled out to promote green & low-carbon development in Inner Mongolia

Summary: On 3 April, NDRC, jointly with other five government organs, released 30 specific measures to promote green, low-carbon and high-quality development in Inner Mongolia Autonomous Region.

On 3 April, the National Development and Reform Commission of the People's Republic of China (NDRC), jointly with other five government organs, issued the *Notice Regarding Policy Measures for Supporting Green, Low-Carbon and High-Quality Development in Inner Mongolia Autonomous Region*. A total of 30 measures are put forward, which fall into seven major categories.

#### Concerning transformation to green and low-carbon energies:

- Developing new energy sources—focusing on Kubuqi, Ulan Buh and Tengger and Badain Jaran deserts, and constructing large-scale wind and photovoltaic power bases there; planning feasible new energy projects in desert areas, the Gobi, arid areas, border areas, coal-mining subsidence zones, and open-pit mine dumps;
- Promoting the construction of advanced coal production capacity in Tongliao and other areas, and managing and utilising rare coal varieties with protective measures taken; across Inner Mongolia, supporting resource-saving and emissions-reducing upgrades to coal-fired power units, making operations more flexible and upgrading heat generation capacity in these units; advancing coal-fired power decarbonisation demonstration projects; adopting multiple measures to gradually reduce fuel coal use in non-electricity industries;
- Supporting deeper integration of oil and gas exploration and the development of new energy sources; making better use of the associated resources in natural gas such as helium;
- Strengthening the 500kV power grid backbone systems in western and eastern Inner Mongolia; accelerating the construction of power transmission channels and enhancing the scale and capacity of transmission of power from new energy sources through existing channels;
- Setting up intelligent power scheduling system adapted to high proportion of new energy sources and supportive of dynamic coordination of power source-grid-load; promoting the construction of smart grid demonstration zones in Hohhot, Baotou, Ordos, etc. ;
- Supporting Inner Mongolia to explore differentiated policies that are conducive to high-level development and utilisation of new energy sources based on local conditions.

#### Concerning the construction of a modern industrial system:

- Supporting Inner Mongolia to build a modern industrial system, improve and strengthen its key industrial clusters and key industrial chains, and foster consumer goods industry strategic demonstration cities (scoring high in three aspects: product variety increase, quality improvement and brand creation);
- Promoting transformation and upgrading of traditional industries in enterprises in industries such as thermal power generation, and modern coal chemical; constructing high-standard demonstration zones for undertaking industrial transfers in eastern Inner Mongolia;
- Developing new energy industry—supporting Inner Mongolia to explore innovative development mode for new energy industry, and create a national cluster for integrated development of new energy and advanced energy-intensive industries;
- Building a national hub node in the integrated nationwide computing network and a computing power supporting base serving all parts of China; supporting the construction of incremental distribution networks for big data industrial parks;
- Improving green and low-carbon development of the agricultural and animal husbandry industries, and supporting Inner Mongolia to vigorously cultivate traditional dominant food production areas and local specialty food industries.



**Concerning low-carbon development in key areas:**

- Supporting Inner Mongolia to take the lead in exploring methods to transform from the dual control of energy consumption and energy intensity to the dual control of carbon emission and carbon intensity, and to build a national carbon measurement centre;
- Encouraging Inner Mongolia to improve the index system for evaluation of conservation and intensive use of resources, and promoting energy conservation and carbon reduction transformation in key industries;
- Supporting Inner Mongolia to launch large-scale equipment renewals and trade-ins of old consumer goods, strengthening the leading role played by related standards, and shaping a smooth resource recycling chain;
- In urban and rural construction, accelerating the development of green buildings, and it is encouraged to set exemplars of ultra-low energy buildings and nearly zero energy buildings;
- In transportation, supporting Inner Mongolia to build a low-carbon transportation system.

**Concerning green and low-carbon scientific and technological innovation:**

- Supporting scientific research units and enterprises in Inner Mongolia to cooperate with excellent domestic scientific research teams, and provincial-level brilliant scientific and technological forces to participate in the construction of relevant national-level laboratories and national key laboratories;
- Supporting Inner Mongolia to engage in building demonstration projects featuring advanced green and low-carbon technologies, and setting up regional green technology trading platform;
- Supporting Inner Mongolia to set up academic disciplines related to green and low-carbon technologies and improve its multi-level talent training system.

**Concerning comprehensively improving the quality and stability of the ecological environment:**

- Strengthening the comprehensive prevention and control of desertification and the construction of key ecological projects in three major areas—the Yellow River Zigzag region, the Horqin and Otindag sandy lands, and the Hexi Corridor-Taklimakan Desert edge;
- Exploring new paths for high-level protection and sustainable utilisation of forests, grasslands, wetlands and deserts, and innovating ecological protection and restoration models;
- Supporting Inner Mongolia to push ahead with the construction of forest and grassland carbon sink pilot programs;
- Continuously improving quality of the atmospheric environment;
- Strengthening the ecological protection and restoration of key rivers and lakes, guaranteeing the ecological water use of rivers and lakes, and scientifically allocating ecological water use for forests and grasslands; supporting Inner Mongolia to implement key national soil and water conservation projects including comprehensive management of small watersheds with intensified efforts to improve quality and efficiency, comprehensive improvement of slope farmland, construction of new warp land dams and sediment storage dams, and management of erosion gullies in the black soil region of Northeast China; strengthening the construction of sewage treatment infrastructure in cities, towns and industrial parks, and promoting the grading of key industries and enterprises based on sewage treatment and discharge level; increasing the rate for comprehensive utilisation of coal mine water;
- Taking actions to prevent and control soil pollution sources on agricultural land, strengthening soil risk control and remediation of contaminated arable land and construction land, and encouraging green and low-carbon remediation; supporting Baotou, Hohhot and Ordos to build themselves into zero waste cities, and propelling the construction of a demonstration base for the comprehensive utilisation of bulk solid waste in Baotou City.

**Concerning deepening regional all-round opening-up and cooperation:**

- Strengthening regional collaboration on green and low-carbon development;
- Expanding green and low-carbon international cooperation.





**Concerning safeguard measures:**

- Adhering to and strengthening the overall leadership of the Communist Party of China;
- Strengthening financial support;
- Improving the working mechanism.





## Registration

### 99 Herbicide products to be approved of registration, as per MARA announcement in late March

Summary: On 29 March, MARA released information of pesticide products that it had planned to approve of registration (3rd-batch this year), which include 99 herbicide products. The majority of the to-be-approved herbicide products are of low toxicity and the most popular form is EC.

On 29 March, the Department of Agrochemical Management of Ministry of Agriculture and Rural Affairs of the People's Republic of China (MARA) released the list of pesticide products that it had planned to approve of registration (3rd-batch this year), which include 99 herbicide products.

Of these to-be-approved herbicide products, glufosinate-P is the most popular active ingredient: the number of glufosinate-P single formulations and glufosinate-P TC products reaches 16. For mixed formulations, topramezone-terbuthylazine mixture is the most popular choice. Main product forms are EC, OD, SL and SC; amount of products in these four forms is 23, 22, 20 and 10, respectively. The majority of these products are of low toxicity. In this batch, Anhui Jintudi Biotechnology Co., Ltd. will have six herbicide products approved, followed by Hunan Xinchangshan Agricultural Development Co., Ltd. with four herbicide products.



**TABLE 4:** Popular active ingredients and mixtures of herbicide products to be approved of registration in China, late-March 2024

No.	Active ingredient/mixture	Number
1	Glufosinate-P	16
2	Topramezone·terbuthylazine	5
3	Topramezone	3
4	Oxaziclomefone	3
5	Metamifop·cyhalofop-butyl	3
6	Anilofos	3
7	MCPA·bentazone	2
8	Flumioxazin·glufosinate-ammonium	2
9	Flumioxazin·glufosinate-P	2
10	Glyphosate	2
11	Metamifop	2
12	Quinclorac·metamifop·cyhalofop-butyl	2
13	MCPA·isooctyl·fluroxypyr-meptyl	2
14	Florasulam·carfentrazone-ethyl	2
15	Atrazine·mesotrione·nicosulfuron	2
16	Isoxaflutole·atrazine	2
	Others	46
	<b>Total</b>	<b>99</b>

Source: MARA

**TABLE 5:** Companies with at least two herbicide products to be approved of registration in China, late-March 2024

No.	Company	Number
1	Anhui Jintudi Biotechnology Co., Ltd.	6
2	Hunan Xinchangshan Agricultural Development Co., Ltd.	4
3	Anhui Shengdan Biochemical Co., Ltd.	3
4	Hannong (Heilongjiang) Chemical Co., Ltd.	3
5	Shandong Lebont Chemical Co., Ltd.	3
6	Anhui Meicheng Chemical Co., Ltd.	2
7	Anhui Shalongda Biotechnology Co., Ltd.	2
8	Anhui Yuanjing Crop Protection Co., Ltd.	2
9	Bengbu Gerun Biotechnology Co., Ltd.	2
10	Henan Changjian Biotechnology Co., Ltd.	2
11	Henan Jinliang Fine Chemical Co., Ltd.	2
12	Hunan Zefeng Agricultural Chemical Co., Ltd.	2
13	Jiangsu Agrochem Laboratory Co., Ltd.	2
14	Inner Mongolia Miraculous Crop Science Co., Ltd.	2
15	Shandong Aokun Crop Science Co., Ltd.	2
16	Shandong Runyang Chemical Co., Ltd.	2
17	Shandong Sinomey Chemicals Co., Ltd.	2
18	Xianglin Mefront Biotechnology (Huai'an) Co., Ltd.	2
19	Yongnong BioSciences Co., Ltd.	2
20	Zhongtu Chemical (Anhui) Co., Ltd.	2
	Others	50
	<b>Total</b>	<b>99</b>

Source: MARA

TABLE 6: Herbicide products to be approved of registration in China, released in late-March 2024

No.	Company	Product name	Active ingredient and content	Form	Toxicity
1	Tianjin Boke Baisheng Technology Co., Ltd.	Clomazone-propisochlor	Clomazone 6%·propisochlor 67%	EC	Low
2	Zhongtu Chemical (Anhui) Co., Ltd.	Fluroxypyr-meptyl-MCPA-isooctyl	Fluroxypyr-meptyl 15%·MCPA-isooctyl 70%	EC	Low
3	Zhongtu Chemical (Anhui) Co., Ltd.	Metamifop-cyhalofop-butyl	Metamifop 18%·cyhalofop-butyl 24%	EC	Low
4	Shandong Kangqiao Bio-technology Co., Ltd.	Glufosinate-ammonium-flumioxazin	Glufosinate-ammonium 20%·flumioxazin 2%	OD	Low
5	Shandong Zhonghe Chemistry Co., Ltd.	Acetochlor-flumioxazin-metribuzin	Acetochlor 76%·flumioxazin 1.50%·metribuzin 5.50%	EC	Low
6	Shandong Sinomey Chemicals Co., Ltd.	Carfentrazone-ethyl-florasulam	Carfentrazone-ethyl 6%·florasulam 3%	SE	Low
7	Zhejiang Heben Pesticide & Chemicals Co., Ltd.	Atrazine-topramezone-bromoxynil octanoate	Atrazine 24%·topramezone 2%·bromoxynil octanoate 4%	OD	Low
8	Anhui Meicheng Chemical Co., Ltd.	Clomazone-cyhalofop-butyl	Clomazone 5%·cyhalofop-butyl 20%	EC	Low
9	Anhui Meicheng Chemical Co., Ltd.	Clomazone-propanil	Clomazone 3%·propanil 30%	EC	Low
10	Hunan Zefeng Agricultural Chemical Co., Ltd.	Glufosinate-P-oxyfluorfen	Glufosinate-P 12%·oxyfluorfen 6%	ME	Low
11	Hunan Zefeng Agricultural Chemical Co., Ltd.	Fluoroglycofen-ethyl-glufosinate-P	Fluoroglycofen-ethyl 3%·glufosinate-P 12%	ME	Low



12	Jiangsu Mindleader Crop Technology Co., Ltd.	Atrazine·S-metolachlor	Atrazine 25%·S-metolachlor 13%	ZC	Low
13	Shandong Vicome Greenland Chemical Co., Ltd.	Flumioxazin·glufosinate-P	Flumioxazin 1.50%·glufosinate-P 10.50%	OD	Low
14	Nanjing Goodagro Co., Ltd.	Flumioxazin·pendimethalin	Flumioxazin 1%·pendimethalin 37%	ZC	Low
15	Qingdao Jiner Agrochemicals R&D Co., Ltd.	Topramezone·terbuthylazine	Topramezone 2%·terbuthylazine 26%	OD	Low
16	Hebei Rongwei Biological Pharmaceutical Co., Ltd.	Glufosinate-P-ammonium	Glufosinate-P 10%	SL	Low
17	Guangdong Linong Bio-Technology Co., Ltd.	Glufosinate-P-ammonium	Glufosinate-P 20%	SL	Low
18	Anhui Lantian Agricultural Development Co., Ltd.	Fluoroglycofen-ethyl·imazapic·quizalofop-p-ethyl	Fluoroglycofen-ethyl 2%·imazapic 5%·quizalofop-p-ethyl 5%	ME	Low
19	Anhui Jintudi Biotechnology Co., Ltd.	Bentazone·MCPA	Bentazone 40%·MCPA 10%	SL	Low
20	Anhui Jintudi Biotechnology Co., Ltd.	Mesotrione·S-metolachlor·terbuthylazine	Mesotrione 3.40%·S-metolachlor 34.20%·terbuthylazine 11.40%	SE	Low
21	Anhui Jintudi Biotechnology Co., Ltd.	Propanil·cyhalofop-butyl	Propanil 24%·cyhalofop-butyl 15%	EC	Low
22	Anhui Jintudi Biotechnology Co., Ltd.	Butachlor·oxadiargyl	Butachlor 30%·oxadiargyl 5%	EW	Low
23	Anhui Jintudi Biotechnology Co., Ltd.	MCPA-isooctyl	MCPA-isooctyl 85%	EC	Low
24	Anhui Jintudi Biotechnology Co., Ltd.	Oxaziclomefone	Oxaziclomefone 30%	SC	Low





	Ltd.				
25	Guangxi Weidi Biotechnology Co., Ltd.	Glufosinate-P-ammonium	Glufosinate-P 10%	SL	Low
26	Jilin Xinmin Pesticide Co., Ltd.	Anilofos	Anilofos 40%	EC	Low
27	Shandong Changqing Pesticide Factory Co., Ltd.	Isoxaflutole	Isoxaflutole 20%	SC	Low
28	Henan Changjian Biotechnology Co., Ltd.	Glyphosate ammonium	Glyphosate 86%	SG	Low
29	Henan Changjian Biotechnology Co., Ltd.	Glufosinate-P-ammonium	Glufosinate-P 20%	SL	Low
30	Jilin Jinqiu Pesticide Co., Ltd.	Metamifop-cyhalofop-butyl	Metamifop 10%·cyhalofop-butyl 10%	EC	Low
31	Hannong (Heilongjiang) Chemical Co., Ltd.	Atrazine·mesotrione·nicosulfuron	Atrazine 20%·mesotrione 8%·nicosulfuron 4%	OD	Low
32	Hannong (Heilongjiang) Chemical Co., Ltd.	Bentazone-MCPA	Bentazone 400g/L·MCPA 60g/L	SL	Low
33	Hannong (Heilongjiang) Chemical Co., Ltd.	Anilofos	Anilofos 40%	EC	Low
34	Hefei Henong Pesticide Co., Ltd.	Isoproturon	Isoproturon 50%	SC	Low
35	Ningxia Lantian Agricultural Development Co., Ltd.	Glufosinate-P	Glufosinate-P 90%	TC	Low
36	Shandong Aokun Crop Science Co., Ltd.	Tembotrione	Tembotrione 97%	TC	Low
37	Shandong Aokun	Topramezone	Topramezone 30%	OD	Mild





	Crop Science Co., Ltd.				
38	Hebei Lingang Chemical Co., Ltd.	Topramezone	Topramezone 97%	TC	Low
39	Dengfeng Jinbo Pesticide Chemical Co., Ltd.	S-Metolachlor	S-Metolachlor 960g/L	EC	Low
40	Qilu Pharmaceutical (Inner Mongolia) Co., Ltd.	Glufosinate-P-ammonium	Glufosinate-P 90%	TC	Moderate
41	Shandong Lebont Chemical Co., Ltd.	Fluroxypyr-meptyl	Fluroxypyr-meptyl 288g/L	EC	Low
42	Shandong Lebont Chemical Co., Ltd.	Atrazine-isoxaflutole	Atrazine 45%·isoxaflutole 5%	SC	Low
43	Shandong Lebont Chemical Co., Ltd.	Glufosinate-ammonium·flumioxazin	Glufosinate-ammonium 18.50%·flumioxazin 1.50%	OD	Low
44	Heilongjiang Punongfeng Biotechnology Development Co., Ltd.	Anilofos	Anilofos 40%	EC	Low
45	Inner Mongolia Miraculous Crop Science Co., Ltd.	Glufosinate-P	Glufosinate-P 90%	TC	Low
46	Inner Mongolia Miraculous Crop Science Co., Ltd.	Glufosinate-P-ammonium	Glufosinate-P 90%	TC	Moderate
47	Guangxi Limin Pharmaceutical Co., Ltd.	Glufosinate-P-ammonium	Glufosinate-P 10%	SL	Low





48	Guangxi Crop Protection Technology Co., Ltd.	Bispyribac-sodium·penoxsulam	Bispyribac-sodium 0.03%·penoxsulam 0.03%	GR	Low
49	BrightMart CropScience Co., Ltd.	Metamifop·cyhalofop-butyl	Metamifop 10%·cyhalofop-butyl 10%	EC	Low
50	Shandong Runyang Chemical Co., Ltd.	Flumioxazin·glufosinate-P	Flumioxazin 0.80%·glufosinate-P 19.20%	SC	Low
51	Shandong Runyang Chemical Co., Ltd.	Glufosinate-P-ammonium	Glufosinate-P 20%	SL	Low
52	Hunan Xunchao Agrochemical Co., Ltd.	Oxaziclomefone	Oxaziclomefone 10%	SC	Mild
53	Anhui Shalongda Biotechnology Co., Ltd.	Oxaziclomefone	Oxaziclomefone 10%	SC	Low
54	Henan Jinliang Fine Chemical Co., Ltd.	Topramezone·terbuthylazine	Topramezone 2%·terbuthylazine 26%	OD	Low
55	Henan Jinliang Fine Chemical Co., Ltd.	Atrazine·topramezone·nicosulfuron	Atrazine 24%·topramezone 1.50%·nicosulfuron 4.50%	OD	Low
56	Anhui Yuanjing Crop Protection Co., Ltd.	Acifluorfen·bentazone	Acifluorfen 80g/L·bentazone 360g/L	SL	Low
57	Anhui Yuanjing Crop Protection Co., Ltd.	Metamifop·fluroxypyr-meptyl·cyhalofop-butyl	Metamifop 12%·fluroxypyr-meptyl 6%·cyhalofop-butyl 18%	EC	Low
58	Shandong Longxi Crop Protection Co., Ltd.	Clethodim·clomazone·fomesafen	Clethodim 7%·clomazone 15%·fomesafen 15%	OD	Low
59	Hunan Bide Biochemical Technology Co., Ltd.	Propyzamide	Propyzamide 50%	WG	Mild







60	Heze Maotai Ruinong Biotechnology Co., Ltd.	Glufosinate-P-ammonium	Glufosinate-P 10%	SL	Low
61	Henan Tianfeng Shangpin Biological Technology Co., Ltd.	Acetochlor-atrazine-mesotrione	Acetochlor 30%·atrazine 24%·mesotrione 6%	SE	Low
62	Bengbu Gerun Biotechnology Co., Ltd	Metamifop-cyhalofop-butyl-quinclorac	Metamifop 10%·cyhalofop-butyl 15%·quinclorac 10%	OD	Low
63	Bengbu Gerun Biotechnology Co., Ltd	Bensulfuron-methyl-butachlor	Bensulfuron-methyl 3%·butachlor 57%	OD	Low
64	Heilongjiang Lvfyngyuan Biotechnology Co., Ltd.	Fluroxypyr-meptyl-MCPA-isooctyl	Fluroxypyr-meptyl 15%·MCPA- isooctyl 70%	EC	Low
65	Star of Jinxiu Henan Crops Protection Co., Ltd.	Topramezone-terbuthylazine	Topramezone 2%·terbuthylazine 26%	OD	Low
66	Zhenjiang Pioneer Cropscience Co., Ltd.	Propanil	Propanil 80%	WG	Low
67	Hebei Kaisite Agrichemicals Co., Ltd.	2,4-D-ethylhexyl-nicosulfuron-terbuthylazine	2,4-D-ethylhexyl 5.50%·nicosulfuron 5.50%·terbuthylazine 22%	OD	Low
68	Sichuan Chuandong Pesticide Chemical Co., Ltd.	Glufosinate-P-ammonium	Glufosinate-P 10%	SL	Low
69	Shandong Binnong Technology Co., Ltd.	S-Metolachlor-terbuthylazine	S-Metolachlor 31.25%·terbuthylazine 18.75%	SE	Low
70	Xianglin Mefront Biotechnology (Huai'an) Co., Ltd.	Cyhalofop-butyl	Cyhalofop-butyl 40%	OD	Low
71	Xianglin Mefront	Oxadiazon-pendimethalin	Oxadiazon 10%·pendimethalin	EC	Low





	Biotechnology (Huai'an) Co., Ltd.		30%		
72	Jiangsu Agrochem Laboratory Co., Ltd.	Pinoxaden	Pinoxaden 5%	EC	Low
73	Dezhou Dacheng Weiye Agricultural Technology Co., Ltd.	Florasulam	Florasulam 50g/L	SC	Low
74	Guangxi Bindeli Biotechnology Co., Ltd.	Clopyralid·picloram	Clopyralid 24%·picloram 6%	SL	Low
75	Jiangsu Fengshan Biochemical Technology Co., Ltd.	Metamifop·cyhalofop-butyl·quinclorac	Metamifop 10%·cyhalofop-butyl 15%·quinclorac 10%	OD	Low
76	Hemeisi (Shandong) Plant Protection Co., Ltd.	Diquat dichloride	Diquat dichloride 20%	SL	Low
77	Jiangsu Repont Agrochemical Co., Ltd.	Bensulfuron-methyl·pretilachlor	Bensulfuron-methyl 5.50%·pretilachlor 49.50%	OD	Low
78	Anhui Yinong Chemical Co., Ltd.	Triclopyr-butotyl	Triclopyr-butotyl 667g/L	EC	Low
79	Anhui Shengdan Biochemical Co., Ltd.	MCPA-dimethylamine salt	MCPA 61.20%	SL	Low
80	Anhui Guangxin Agrochemical Co., Ltd.	Hexazinone	Hexazinone 75%	WG	Low
81	Anhui Shengdan Biochemical Co., Ltd.	Metamifop	Metamifop 20%	EC	Low
82	Anhui Shengdan Biochemical Co., Ltd.	Clodinafop-propargyl·pinoxaden	Clodinafop-propargyl 6%·pinoxaden 4%	EC	Low





83	Harbin Huifeng Biological Agrochemical Co., Ltd.	Topramezone·terbuthylazine	Topramezone 2%·terbuthylazine 26%	OD	Mild
84	Shandong Shibang Agrochemicals Co., Ltd.	Topramezone·terbuthylazine	Topramezone 2%·terbuthylazine 26%	OD	Low
85	Hunan Xinchangshan Agricultural Development Co., Ltd.	Glufosinate-P-ammonium	Glufosinate-P 10%	SL	Low
86	Hunan Xinchangshan Agricultural Development Co., Ltd.	Carfentrazone-ethyl·florasulam	Carfentrazone-ethyl 6%·florasulam 3%	SE	Low
87	Hunan Xinchangshan Agricultural Development Co., Ltd.	Atrazine·isoxaflutole	Atrazine 45%·isoxaflutole 5%	SC	Low
88	Hunan Xinchangshan Agricultural Development Co., Ltd.	Atrazine·fluroxypyr-meptyl·quinclorac	Atrazine 15%·fluroxypyr-meptyl 2%·quinclorac 9%	OD	Low
89	Anhui Shalongda Biotechnology Co., Ltd.	Penoxsulam·mefenacet	Penoxsulam 4%·mefenacet 66%	WG	Low
90	Zhejiang Wynca Chemical Group Co., Ltd.	Glufosinate-P-ammonium	Glufosinate-P 255g/L	SL	Low
91	Jiangsu Yangnong Chemical Co., Ltd.	Glyphosate	Glyphosate 450g/L	SL	Low
92	ADAMA Anpon (Jiangsu) Co., Ltd.	Mesotrione	Mesotrione 480g/L	SC	Low





93	ADAMA Huifeng (Jiangsu) Co., Ltd.	Glufosinate-ammonium	Glufosinate-ammonium 150g/L	SL	Low
94	Shandong Weifang Rainbow Chemical Co., Ltd.	Atrazine·mesotrione·nicosulfuron	Atrazine 200g/L·mesotrione 70g/L·nicosulfuron 30g/L	OD	Low
95	Yongnong BioSciences Co., Ltd.	Glufosinate-P-ammonium	Glufosinate-P 256g/L	SL	Low
96	Yongnong BioSciences Co., Ltd.	Glufosinate-P-ammonium	Glufosinate-P 183g/L	SL	Low
97	Jiangsu Agrochem Laboratory Co., Ltd.	Iodosulfuron-methyl-sodium	Iodosulfuron-methyl-sodium 10%	WG	Low
98	Mengzhou Huafeng Biochemical Pesticide Co., Ltd.	Topramezone	Topramezone 10%	OD	Low
99	Yanhua Yoloo (Laoting) Biotechnology Co., Ltd.	Metamifop	Metamifop 15%	EC	Low

Source: MARA





## Paraquat and pyridine

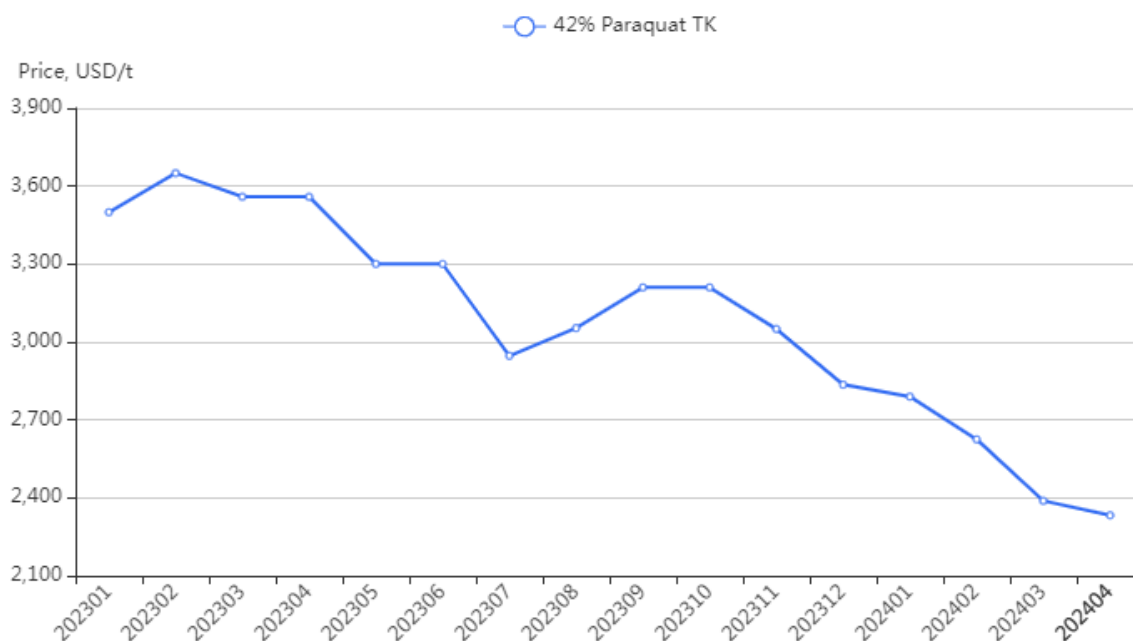
### Paraquat TK price edges down in April, stable price expected in short term

Summary: In April, the FOB price of paraquat TK edged down; the price of paraquat formulations was quite stable. It is expected that paraquat TK price will become steady or see small drops in the short term.

In April, the FOB price of paraquat TK edged down but the price of paraquat formulations was quite stable. CCM's price monitoring data showed that the FOB price of 42% paraquat TK in China declined by 2.32% MoM to USD2,333/t in April; the price fall has slowed. On a yearly basis, the price registered a 34.44% dive. However, the FOB price of 20% paraquat AS remained at USD1,729/t. Paraquat TK products were mainly exported to the US, Indonesia, etc. For paraquat formulations, deals were often stricken at a low price. Currently, the majority of Chinese paraquat producers operate normally and the supply is in good condition.

Ex-works price of pure pyridine stabilised at USD3,186/t (RMB22,600/t) in April, and for the short term, the stable price trend would continue. It is thus believed that there is a slim chance for an increase in paraquat TK price.

**FIGURE 2:** Monthly FOB price of 42% paraquat TK in China, Jan. 2023–April 2024

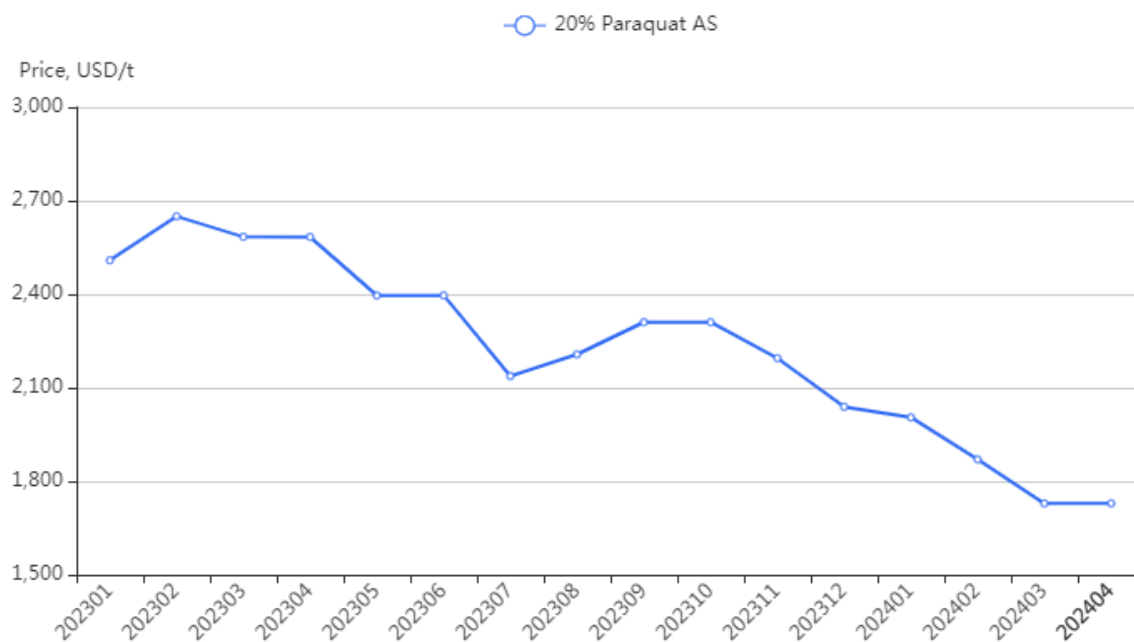


Source:CCM



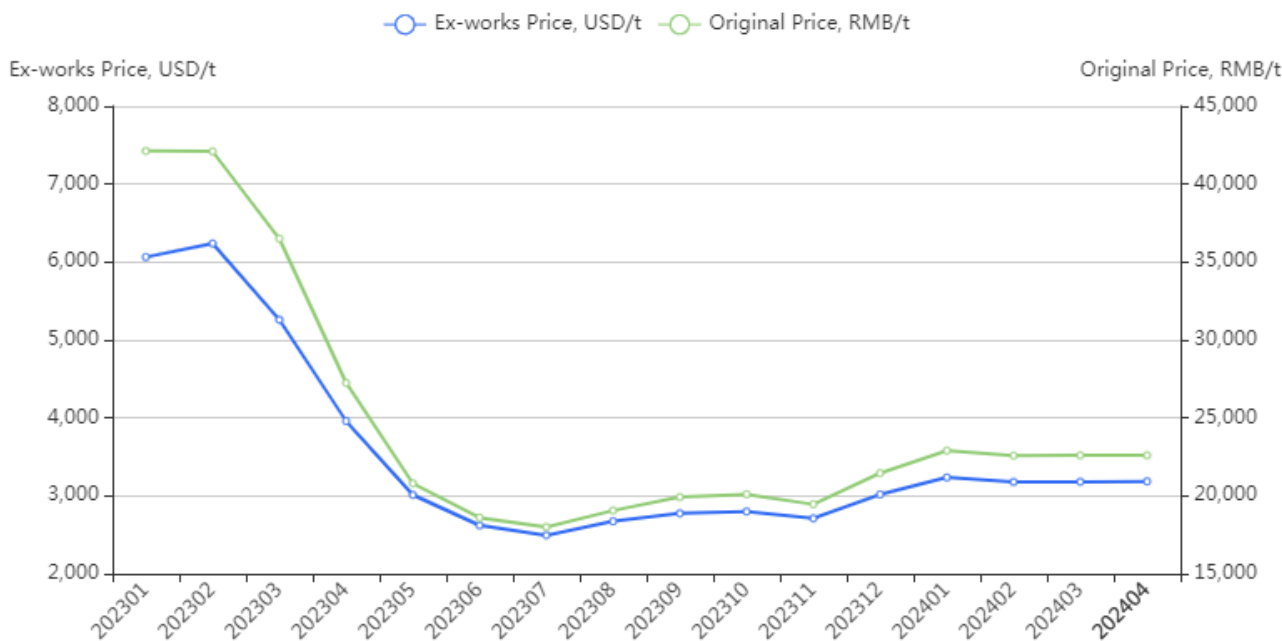


FIGURE 3: Monthly FOB price of 20% paraquat AS in China, Jan. 2023–April 2024



Source:CCM

FIGURE 4: Monthly ex-works price of pure pyridine in China, Jan. 2023–April 2024



Source:CCM

### Diquat TK price hovers at a low level

Summary: In the past six months, diquat trade was relatively weak due to limited demand both at home and abroad. After a quickened price fall in Q1 2024, the price of diquat TK slipped by 0.5% MoM in April and hit a historic low.

From Oct. 2023 to April 2024, the ex-works price of diquat TK was in an overall downtrend in China; the April price dropped further to

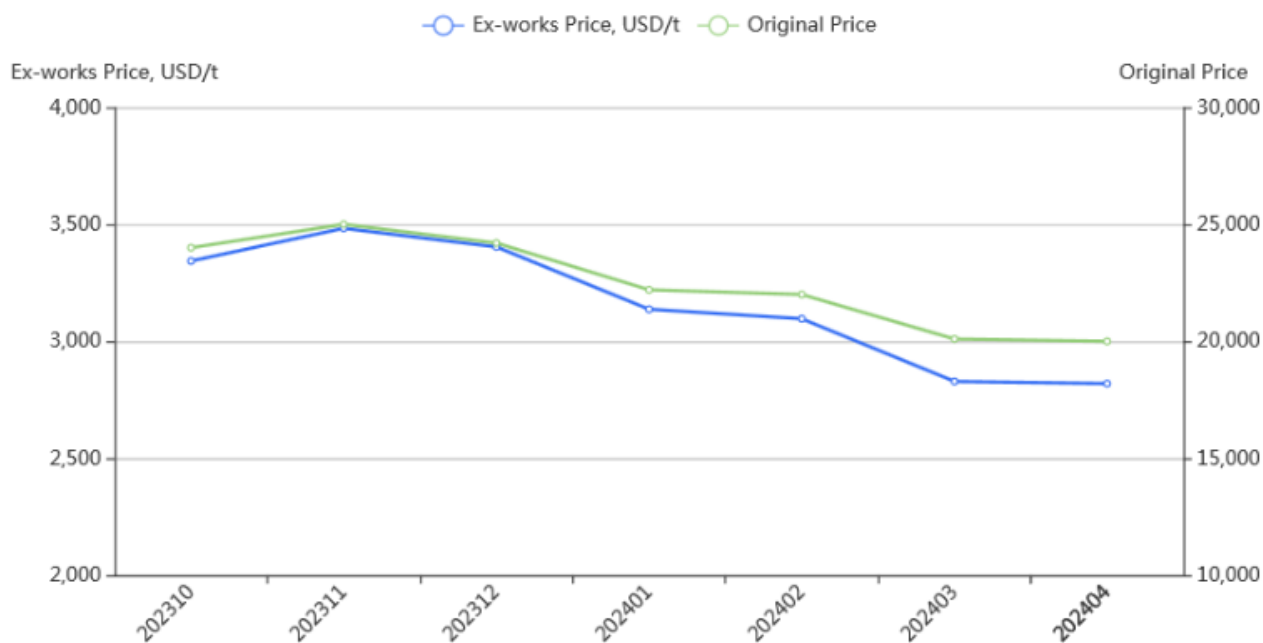




USD2,819/t (RMB20,000/t), down 0.5% MoM and 50% YoY.

In Q4 2023, diquat price averaged USD3,410/t, down 2.40% from the price of previous quarter. Main reasons for the decrease are: deals were small under limited demand as overseas replenishment orders were yet to come; domestic formulation producers took the opportunity to purchase low-priced inventories in the market. Then in Q1 2024, the quarterly price dived 12.16% to USD3,021/t, and on a yearly basis, the price plunged 53.74%. Traditionally, Q1 should be a peak season for herbicide products. However, this time, overseas demand did not recover as expected, and domestic demand was lacklustre, which led to the quickening of price fall.

FIGURE 5: Monthly ex-works price of 40% diquat TK in China, Oct. 2023–April 2024



Source:CCM





## Trade analysis

## Export volume of herbicide formulations expands 56% YoY in Q1 2024

Summary: In Q1 2024, export volume of herbicide formulations from China grew by some 56% YoY. In March alone, the export volume expanded some 51% YoY, yet the value shrank by 2% YoY.

According to the statistics from General Administration of Customs of China (China Customs), China exported 524,436 tonnes (actual volume, the same hereafter) of herbicide formulation products in Q1 2024, the value totalling USD1,256.81 million. On a yearly basis, the volume expanded by 56.26%, while the value declined by 2.40%. The average export price in Q1 2024 dropped by 37.54% YoY.

In March alone, the export volume grew by 51.15% YoY to 199,238 tonnes, yet the export value dropped by 2.00% YoY to USD467.80 million, and thus the average export price fell by 35.16% YoY. China exported herbicide formulation products to 118 destinations in March.

Top three export destinations in this period were Australia, Brazil and Thailand. Specifically,

- For the exports to Australia, the volume ballooned 508.53% YoY to 30,605 tonnes, the value surged 224.50% YoY, while the average export price plunged by 46.67% YoY;
- For the exports to Brazil, the volume surged soared 281.13% YoY to 16,193 tonnes, the value jumped up by 88.77% YoY, while the average export price plunged by 50.47% YoY;
- For the exports to Thailand, the volume grew by 85.99% YoY to 14,001 tonnes, the value increased by 11.52% YoY, while the average export price fell by 40.04% YoY.

**TABLE 7:** Exports of herbicide formulations from China, Q1 2024

Month	Actual volume, tonne	YoY change	Value, USD	YoY change	Average price, USD/t	YoY change
Jan. 2024	171,940.154	56.36%	417,124,039	-8.78%	2,425.98	-41.66%
Feb. 2024	153,258.051	63.32%	371,881,562	5.34%	2,426.51	-35.50%
March 2024	199,238.052	51.15%	467,799,966	-2.00%	2,347.94	-35.16%
<b>Total</b>	<b>524,436.257</b>	<b>56.26%</b>	<b>1,256,805,567</b>	<b>-2.40%</b>	<b>2,396.49</b>	<b>-37.54%</b>

Note: The herbicide formulations include products both in non-retail packaging and in retail packaging.

Source: China Customs





**TABLE 8:** Major destinations of herbicide formulations exported from China, March 2024

No.	Destination	Actual volume, tonne	YoY change	Value, USD	YoY change	Average price, USD/t	YoY change
1	Australia	30,604.497	508.53%	73,621,417	224.50%	2,405.58	-46.67%
2	Brazil	16,193.297	281.13%	47,989,124	88.77%	2,963.52	-50.47%
3	Thailand	14,001.436	85.99%	25,471,700	11.52%	1,819.22	-40.04%
4	Ghana	13,886.057	1.56%	24,913,964	-34.42%	1,794.17	-35.43%
5	Nigeria	12,212.728	0.41%	24,617,502	-30.20%	2,015.73	-30.48%
6	The US	11,670.233	241.16%	27,015,742	74.19%	2,314.93	-48.94%
7	Indonesia	6,054.176	108.30%	10,787,637	30.59%	1,781.85	-37.31%
8	Russia	5,551.032	34.38%	17,420,512	-28.89%	3,138.25	-47.09%
9	Cambodia	4,679.603	95.06%	9,679,664	25.02%	2,068.48	-35.90%
10	Cote d'Ivoire	4,296.929	-7.34%	9,088,317	-49.08%	2,115.07	-45.05%
	Others	80,088.064	/	197,194,387	/	2,462.22	/
	<b>Total</b>	<b>199,238.052</b>	<b>51.15%</b>	<b>467,799,966</b>	<b>-2.00%</b>	<b>2,347.94</b>	<b>-35.16%</b>

Note: The herbicide formulations include products both in non-retail packaging and in retail packaging.

Source: China Customs



## Brief news

### Syngenta Group drops RMB65 billion IPO on SSE Main Board

On March 29, the Shanghai Stock Exchange (SSE) terminated the review of Syngenta Group Co., Ltd. (Syngenta Group)'s IPO after the group and its sponsors withdrew the listing application on the Main Board. Syngenta Group originally aimed to raise USD9.16 billion (RMB65 billion) in its IPO, of which: USD2.93 billion (RMB20.80 billion) was planned for global M&A projects, USD2.75 billion (RMB19.50 billion) for repayment of long-term debts, and USD1.83 billion (RMB13 billion) for agricultural science and technology R&D and accumulation. The group's IPO on SSE had been postponed repeatedly since it was first proposed in 2021, with the timeline as follows:

- On 30 June, 2021, SSE accepted Syngenta Group's IPO application for listing on the tech-focused STAR Market.
- By the end of March 2022, Syngenta Group had completed three rounds of enquiries.
- On 28 March, 2023, SSE scrapped the review conference for Syngenta Group's IPO scheduled on 29 March.
- On 18 May, 2023, the group shifted its IPO application to SSE Main Board from STAR Market, and on 19 May SSE accepted the new IPO application.
- On 16 June, 2023, the group got IPO greenlight from the Listing Review Committee of SSE after a round of enquiries.
- On 29 March, 2024, the group announced its decision of withdrawal of its Main Board IPO application. It also expressed that the listing process may be restarted when the conditions are favourable.

Also on 29 March, Syngenta Group reported 2023 full-year revenue at USD32.20 billion (RMB228.42 billion), slipping by 4% YoY; the EBITDA margin dropped to 14.2%, a decrease of 2.5 percentage points from the 2022 figure. Syngenta Group, a wholly-owned subsidiary of the state-owned Sinochem Holdings Corporation Ltd., focuses on R&D, production, and sale of seeds, plant protection and crop nutrition products. It also provides modern agricultural services.

### Guangdong Hekang plans 2,000 t/a capacity for ethofumesate TC

In late March, the environmental impact report of Guangdong Hekang Fine Chemical Co., Ltd. (Guangdong Hekang)'s 8,800 t/a pesticides TC and 800 t/a chemical intermediate expansion project was publicised. The project will be located in the company's plant in the New Materials Industrial Park, Ruyuan Economic Development Zone, Shaoguan City, Guangdong Province. Upon completion, the company will have production capacity of 800 t/a chemical intermediate and 8,800 t/a pesticides TC, including 2,000 t/a capacity for herbicide ethofumesate TC. Guangdong Hekang is a fully-owned subsidiary of the listed pesticide enterprise Yingde Greatchem Chemicals Co., Ltd. (stock code: 300804).

### Fengshan Biochemical's pesticide formulation project (Phase I) passes completion acceptance

In late March, Jiangsu Fengshan Group Co., Ltd. (stock code: 603810) announced that its wholly-owned subsidiary Jiangsu Fengshan Biochemical Technology Co., Ltd. (Fengshan Biochemical)'s 20,000 t/a pesticide formulation technological upgrading and 350 t/a agricultural adjuvants project (Phase I) had been finished and passed completion acceptance, with completed capacity of 19,800 t/a pesticide formulations and 350 t/a adjuvants, leaving production capacity of 100 t/a 75 % nicosulfuron WG and 100 t/a 65 % prodimine WG to be built in Phase II.

The project features adjusting existing formulation capacity and adding more types of formulations (including herbicide formulations) via





upgrading and adding auxiliary production equipment as well as optimising formulation formulas, with the total formulation capacity remaining unchanged when the project is completed; the project also involves construction of 350 t/a capacity for agricultural adjuvants, including 50 t/a diesel adjuvant, which can serve as an efficacy-enhancing adjuvant for glyphosate formulations, speeding up weed killing and reducing the amount of glyphosate formulations used. The project is located in the Dafeng Port Petrochemical and New Materials Industrial Park, Yancheng City, Jiangsu Province.

### **Jiangsu Province Ecological Environment Protection Regulations to take effect on 5 June**

On 2 April, the Standing Committee of the People's Congress of Jiangsu Province officially issued the *Jiangsu Province Ecological Environment Protection Regulations*, which comprehensively specifies the ecological environment protection responsibilities of entities including governments, relevant departments, industrial park management institutions, enterprises and institutions, producers and operators, and citizens. The Regulations consists of 84 articles divided into 7 chapters, which will come into effect on 5 June, 2024. The Regulations has optimised relevant institutional designs based on the actual situations of the ecological and environmental protection work in Jiangsu, which stipulates that:

- The province will implement the Regional Restricted Approval system. For regions that such a system should be adopted according to rules and regulations, the provincial ecological and environmental authorities will suspend the approval of the environmental impact assessment documents of new construction projects which will increase the total emissions of key pollutants or have a significant impact on the eco-environment.
- The shortfall in emission quota for newly added key pollutants in new, transformation, or expansion construction projects, could be obtained through emissions trading or from the emission quota reserve pool in accordance with the relevant national and provincial regulations.
- Credit management should be strengthened and environmental credit assessments of pollutant discharging entities and third-party agencies be carried out.

### **EI report of Liaoning Cynda's 1,800 t/a pesticides TC project accepted**

On 3 April, the Huludao Municipal Ecological Environment Bureau announced the acceptance of the environmental impact (EI) report of Liaoning Cynda Chemical Co., Ltd. (Liaoning Cynda)'s a 1,800 t/a pesticides TC and 500 t/a safener project. Liaoning Cynda is a wholly-owned subsidiary of Shandong Cynda Chemical Co., Ltd. (stock code: 603086).

#### **Project overview**

- Type of project: Transformation and expansion
- Investment: USD29.60 million (RMB210 million), of which USD1.47 million (RMB10.46 million) or 4.98% will be used for environmental protection
- Location: Comprehensive Industrial Park of Huludao Economic Development Zone, Huludao City, Liaoning Province
- Construction details: The project mainly involves the construction of a new fepoxydim workshop accommodating eight production lines, with one production line each for eight products:
  - Herbicides TC production lines: 500 t/a Picolinafen, 200 t/a fepoxydim, 500 t/a oxaziclomefone, 200 t/a indaziflam, 200 t/a cinmethylin, and 200 t/a saflufenacil (capacity totals 1,800 t/a)
  - Others: 500 t/a Isoxadifen-ethyl (a safener) and 245.7 t/a refined (E)-O-(3-chloro-2-propenyl)hydroxylamine
- Construction period: 12 months

### **Jiangsu Kuaida scraps BSE listing**





On 12 April, Beijing Stock Exchange (BSE) announced the termination of the review of Jiangsu Kuaida Agrochemical Co., Ltd. (Jiangsu Kuaida)'s listing and public offering on the BSE after the company called off the listing application. According to its prospectus, the company intended to issue no more than 41.30 million shares via the listing to raise approximately USD34.93 million (RMB247.80 million) for the 4,700 t/a pesticides TC technological upgrading project, which involves production capacity of 2,000 t/a tebuthiuron, 500 t/a napropamide, 1,000 t/a diflufenican, 1,000 t/a azoxystrobin, and 200 t/a pyriproxyfen. The company filed for the listing on the BSE and suspended trading on the National Equities Exchange and Quotations (NEEQ) in late June 2023. On 15 April, Jiangsu Kuaida (stock code: 870536) announced to resume trading on NEEQ starting from 16 April.

Jiangsu Kuaida reported its 2023 full-year revenue at USD136.16 million (RMB965.87 million), down 5.53% YoY; net profit attributable to shareholders of the listing company was USD17.39 million (RMB123.35 million), down 19.92% YoY. The company is a subsidiary of the listed company Lier Chemical Co., Ltd.

### **Shandong KingAgroot proposes to add 300 t/a herbicides TC capacity**

On 11 April, general information of Shandong KingAgroot CropScience Co., Ltd. (Shandong KingAgroot)'s 300 t/a herbicides TC in the Workshop 610 expansion project was publicised on the official website of the Weifang Binhai Economic and Technological Development Zone. With planned investment of USD1.13 million (RMB8 million), once completed, the project will add 300 t/a herbicides TC production capacity including 100 t/a pyroxasulfone, 100 t/a fluchloraminopyr, 50 t/a imazapic, and 50 t/a imazamox in the company's plant in the Binhai Economic and Technological Development Zone in Weifang City, Shandong Province.

### **Huai'an Glory plans to add 2,000 t/a capacity for cinmethylin & aclonifen**

On 8 April, general information of Huai'an Glory Chemical Co., Ltd. (Huai'an Glory)'s 2,000 t/a pesticides and 1,000 t/a potassium chloride expansion project was publicised on the official website of its parent company Jiangsu Flag Chemical Industry Co., Ltd. Upon completion, Huai'an Glory will have production capacity of 1,000 t/a cinmethylin TC, 1,000 t/a aclonifen TC, and 1,000 t/a potassium chloride. The project will be located in the company's plant in No.2 Yannan Avenue, Huai'an Industrial Park, Huai'an City, Jiangsu Province.

### **EI report of Guang'an Lier's 3,000 t/a pesticide intermediate project publicised**

On 10 April, the environmental impact (EI) report of Guang'an Lier Chemical Co., Ltd. (Guang'an Lier)'s 3,000 t/a pesticide intermediate and ancillary facilities construction project was publicised on the official website of the National Guang'an Economic and Technological Development Zone. With self-raised funds of USD21.15 million (RMB150 million), of which USD1.06 million (RMB7.50 million) or 5% is for environmental protection, the company plans to build 3,000 t/a capacity for 6-amino-7-fluoro-4H-1,4-benzoxazin-3-one for self-use purpose; the product is a key intermediate for the production of the herbicide flumioxazin. The project will be located in the Xinqiao Industrial Park, Guang'an Economic and Technological Development Zone, Guang'an City, Sichuan Province, and the construction period will last 12 months.

Guang'an Lier Chemical Co., Ltd. is a fully-owned subsidiary of Lier Chemical Co., Ltd.





### China requires 43.5% additional deposits on importers of US propionic acid

On 19 April, the Ministry of Commerce of the People's Republic of China announced preliminary ruling of anti-dumping investigation against imports of propionic acid originated in the US that was initiated in July 2023. The ministry concluded that the US dumping had harmed China's propionic acid industry. Effective from 20 April, importers seeking to purchase the chemical from the US are required to remit additional deposits at a rate of 43.5% to the General Administration of Customs of China.

If the final ruling is not to impose anti-dumping duties, the deposits collected will be refunded, according to the *Regulations of the People's Republic of China on Anti-dumping*. Propionic acid is an important fine chemical product and a raw material for organic synthesis; it is widely used in the fields of food, feed, pesticide, medicine, etc. It is a material for the production of herbicides such as metamifop.





## Price update

## Ex-works prices of key herbicide raw materials in China, 8 April, 2024

TABLE 9: Ex-works prices of key herbicide raw materials in China, 8 April, 2024

Raw Materials	20240308		20240408	
	Original Price (RMB/t)	Price (USD/t)	Original Price (RMB/t)	Price (USD/t)
98% Glycine	11,575	1,628.93	11,000	1,550.65
92% Iminodiacetonitrile	8,600	1,210.26	8,600	1,212.33
99% Isopropylamine	9,550	1,343.95	9,550	1,346.25
98% N-(Phosphonmethyl) Iminodiacetic acid	14,750	2,075.74	14,750	2,079.28
99% Phosphorus trichloride	6,145	864.77	6,100	859.91
99.9% Pyridine	22,500	3,166.38	22,625	3,189.4

Note: Ex-works price includes VAT.

Source: CCM

## Ex-works prices of main herbicides in China, 8 April, 2024





TABLE 10: Ex-works prices of main herbicides in China, 8 April, 2024

Product	20240308		20240408	
	Original Price (RMB/t)	Price (USD/t)	Original Price (RMB/t)	Price (USD/t)
98% 2,4-D technical	13,400	1,885.76	13,000	1,832.59
92% Acetochlor technical	26,200	3,687.08	26,200	3,693.37
97% Atrazine technical	29,000	4,081.12	29,000	4,088.08
96% Bensulfuron-methyl technical	138,000	19,420.48	136,000	19,171.67
92% Butachlor technical	20,000	2,814.56	20,000	2,819.36
95% Clomazone technical	73,000	10,273.15	73,000	10,290.68
95% Cyhalofop-butyl technical	123,000	17,309.56	120,000	16,916.18
97% Diuron technical	36,300	5,108.43	35,800	5,046.66
98% Fenclorim technical	100,000	14,072.81	100,000	14,096.82
95% Fenoxaprop-P-ethyl technical	134,000	18,857.57	126,000	17,761.99
96% Fluroxypyr technical	88,000	12,384.08	86,000	12,123.26
95% Fomesafen technical	133,900	18,843.5	133,900	18,875.64
95% Glufosinate ammonium technical	61,000	8,584.42	56,900	8,021.09
95% Glyphosate technical	25,600	3,602.64	25,800	3,636.98
95% Haloxyfop-P-methyl technical	106,000	14,917.18	106,000	14,942.63
97% Metolachlor technical	35,000	4,925.48	35,000	4,933.89
95% Metsulfuron-methyl technical	135,000	18,998.3	135,000	19,030.7
95% Nicosulfuron technical	178,000	25,049.61	178,000	25,092.33
97% Oxyfluorfen technical	129,000	18,153.93	124,000	17,480.05
95% Pendimethalin technical	57,000	8,021.5	56,500	7,964.7
95% Pretilachlor technical	30,000	4,221.84	30,000	4,229.05
97% Pyrazosulfuron-ethyl technical	215,000	30,256.55	207,500	29,250.9





80% Quinclorac technical	133,000	18,716.84	133,000	18,748.77
95% Quizalofop-P-ethyl technical	166,000	23,360.87	165,000	23,259.75
95% Tribenuron-methyl technical	78,000	10,976.79	78,000	10,995.52
95% Trifluralin technical	38,000	5,347.67	38,000	5,356.79

Note: Ex-works price includes VAT.

Source: CCM

### Shanghai port prices of main herbicides in China, 8 April, 2024





TABLE 11: Shanghai port prices of main herbicides in China, 8 April, 2024

Product	20240308		20240408	
	Original Price (RMB/t)	Price (USD/t)	Original Price (RMB/t)	Price (USD/t)
98% 2,4-D technical	13,900	1,956.12	13,500	1,903.07
92% Acetochlor technical	26,700	3,757.44	26,700	3,763.85
97% Atrazine technical	29,500	4,151.48	29,500	4,158.56
96% Bensulfuron-methyl technical	138,500	19,490.85	136,500	19,242.16
92% Butachlor technical	20,500	2,884.93	20,500	2,889.85
95% Clomazone technical	73,500	10,343.52	73,500	10,361.16
95% Cyhalofop-butyl technical	123,500	17,379.92	120,500	16,986.66
97% Diuron technical	36,800	5,178.8	36,300	5,117.14
98% Fenclorim technical	100,500	14,143.18	100,500	14,167.3
95% Fenoxaprop-P-ethyl technical	134,500	18,927.93	126,500	17,832.47
96% Fluroxypyr technical	88,500	12,454.44	86,500	12,193.75
95% Fomesafen technical	134,400	18,913.86	134,400	18,946.12
95% Glufosinate ammonium technical	61,500	8,654.78	57,400	8,091.57
95% Glyphosate technical	26,100	3,673	26,300	3,707.46
95% Haloxyfop-P-methyl technical	106,500	14,987.55	106,500	15,013.11
97% Metolachlor technical	35,500	4,995.85	35,500	5,004.37
95% Metsulfuron-methyl technical	135,500	19,068.66	135,500	19,101.19
95% Nicosulfuron technical	178,500	25,119.97	178,500	25,162.82
97% Oxyfluorfen technical	129,500	18,224.29	124,500	17,550.54
95% Pendimethalin technical	57,500	8,091.87	57,000	8,035.19
95% Pretilachlor technical	30,500	4,292.21	30,500	4,299.53
97% Pyrazosulfuron-ethyl technical	215,500	30,326.91	208,000	29,321.38





80% Quinclorac technical	133,500	18,787.2	133,500	18,819.25
95% Quizalofop-P-ethyl technical	166,500	23,431.23	165,500	23,330.23
95% Tribenuron-methyl technical	78,500	11,047.16	78,500	11,066
95% Trifluralin technical	38,500	5,418.03	38,500	5,427.27

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

### FOB Shanghai prices of main herbicides in China, 8 April, 2024





TABLE 12: FOB Shanghai prices of main herbicides in China, 8 April, 2024, USD/t

Product	20240308	20240408
98% 2,4-D technical	1,771.65	1,681.27
92% Acetochlor technical	3,393.07	3,388.41
97% Atrazine technical	3,645.11	3,617.77
96% Bensulfuron-methyl technical	17,816.96	17,588.69
92% Butachlor technical	2,630.45	2,586.57
95% Clomazone technical	9,424.91	9,440.99
95% Cyhalofop-butyl technical	15,318.19	14,970.07
97% Diuron technical	4,686.63	4,629.96
98% Fenclorim technical	12,910.84	12,932.86
95% Fenoxaprop-P-ethyl technical	17,300.52	16,295.4
96% Fluroxypyr technical	11,361.54	11,122.26
95% Fomesafen technical	17,287.61	17,317.1
95% Glufosinate ammonium technical	7,596.83	7,098.31
95% Glyphosate technical	3,602.64	3,636.98
95% Haloxyfop-P-methyl technical	13,685.49	13,708.83
97% Metolachlor technical	4,533.19	4,540.92
95% Metsulfuron-methyl technical	17,429.63	17,459.36
95% Nicosulfuron technical	22,981.29	23,020.49
97% Oxyfluorfen technical	16,065.42	15,469.07
42% Paraquat TK	2,388.5	2,333
95% Pendimethalin technical	7,359.18	7,307.07
95% Pretilachlor technical	3,908.32	3,879.86
97% Pyrazosulfuron-ethyl technical	27,758.3	26,835.68





80% Quinclorac technical	17,171.41	17,200.7
95% Quizalofop-P-ethyl technical	21,431.99	21,339.22
95% Tribenuron-methyl technical	10,070.45	10,087.63
95% Trifluralin technical	4,764.56	4,740.52

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

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