



# Fungicides China News

Vol.5 Issue 9 2012





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**Time:** 9:00a.m.~12:30p.m., September 12th, 2012

**Venue:** Beijing No. 9 Dacheng Road Hotel

**Language:** Chinese

**Organizer:** CCM & Beijing Seed Congress

**Price:** RMB1,500/person; USD250/person

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### Workshop agenda

08:30~09:00 Check in

09:00~09:15 Opening remarks from workshop leaders

09:15~10:15 Seed policy interpretation

10:15~11:15 Development trend of vegetable industrial seedling industry

11:15~11:30 Short break

11:30~12:30 New development in China's seed industry

### Market reports

>> [Dicamba Survey in China](#)

>> [Survey of Triazole Fungicides in China](#)

>> [Production Situation of Difenoconazole in China](#)

>> [Atrazine Survey in China](#)

>> [Abamectin Survey in China](#)

>> [Production and Market of Pymetrozine in China](#)

>> [Production and Market of Paraquat in China](#)

>> [Survey of Amide Herbicides in China](#)

>> [Outlook for China Glyphosate Industry 2012-2016](#)

>> [Acephate Survey in China](#)

### Newsletters related to fungicides

>> [AgriChina Investor](#)

>> [Crop Protection China News](#)

>> [Crop Protection South America Monthly Report](#)

>> [Herbicides China News](#)

>> [Insecticides China News](#)

>> [Glyphosate China Monthly Report](#)

>> [Seed China News](#)



### Interaction Column

Please click [HERE](#) to send your comments and topics you are interested in.



Welcome to Fungicides China News published by CCM, a professional consulting company which has been extensively and intently focusing on the dynamics of China's fungicide industry.

A majority of domestic listed pesticide companies performed well in the first half of 2012 with gradual recovery in pesticide industry, such as Nanjing Redsun Co., Ltd., Jiangsu Changqing Agrochemical Co., Ltd. and Jiangsu Huifeng Agrochemical Co., Ltd. However, not every pesticide enterprise enjoyed sound performance. For instance, Shenzhen Noposion Agrochemicals Co., Ltd., Jiangsu Lanfeng Biochemical Co., Ltd. and Zhejiang Qianjiang Biochemical Co., Ltd. suffered net profit decline in different degrees in H1 2012.

As for domestic fungicide market, rice fungicides are the most eye-catching recently as key diseases, like blast, sheath blight and southern rice black-streaked dwarf disease, continue spreading in main rice planting regions of China, accumulatively reaching about 51.33 million ha., as of mid-Aug. 2012, up 12.0% over the last week and 13.1% year on year.

Under the circumstances, demand for rice fungicides witnesses increase to a certain extent in China. Take fungicides to control rice blast for example, they have been enjoying fast sale recently, mainly including tricyclazole, isoprothiolane, fenoxanil, prochloraz, tebuconazole, epoxiconazole, azoxystrobin, bacillus subtilis, bacillus cereus, etc.

As well known, China's import volume of fungicides has been rising in recent years. Statistics from the General Administration of Customs of the People's Republic of China (GAC) show that the import volume of fungicides in China hits around 15,507 tonnes in the first seven months of 2012, up 24.35% year on year. Whereas, fungicide export volume slides in the mean time, decreasing to about 42,521 tonnes, down 8.30% year on year.

If there are any specific topics you would like us to cover or investigate any of the subjects included in more details, please contact us by +86-20-3761 6606, or [econtact@cnchemicals.com](mailto:econtact@cnchemicals.com).

## Key companies covered in this issue



## Headlines of Fungicides China News 1209

**N**oposion's revenue of fungicide business increases by 6.48% year on year in H1 2012, though its total revenue decreases by 3.88% over H1 2011.

**L**anfeng Biochemical's revenue slightly climbs but its net profit significantly drops in H1 2012.

**H**uifeng Agrochemical successfully turns its performance decline around in H1 2012, enjoying double-digit growth in its revenue and net profit.

**Q**ianjiang Biochemical performs poorly in the first half of 2012, but it avoids financial deficit by the large relocation compensation from the government.

**S**hengyang Sciencreat will launch its pyraoxystrobin formulations into domestic market in 2013.

**B**ASF registers initium 98% TC and dimethomorph•initium 47% SC in China on 6 Aug., 2012, which will be good for the products' promotion.

**E**x-factory price of ethylenediamine in China keeps downturn from Jan. 2012 to early Sept. 2012, and it is estimated to still remain in a stagnant state in the rest months of this year.

**F**ungicides to control rice blast enjoy fast sale recently in main middle and late rice planting regions of China with the advent of high incidence of this disease.

**F**ungicide import jumps but export slides in China from Jan. to July 2012.

**F**irst domestic azoxystrobin mixture, namely difenoconazole•azoxystrobin 30% SC, is registered by Shaanxi Biao Zheng recently, which will bring it handsome profit in the near future.

**R**ice diseases and insect pests continue spreading in China, accumulatively striking about 51.33 million ha. of rice by Aug. 16, 2012, according to NATESC.

**P**otato late blight seriously occurs in Gansu recently, with stricken area accumulatively reaching around 391,353 ha. by mid-Aug. 2012.

**O**n July 30, 2012, Jiangxi Poer has gained the formal registration of phenazino-1-carboxylic acid 1% SC, the second registration of the product in China.

**N**ew registrations of fungicides reach 388 in China from Jan. 1 to Aug. 2, 2012, according to ICAMA.



## Performance overview

### Noposion's revenue of fungicide business up 6.48% year on year in H1 2012

Shenzhen Noposion Agrochemicals Co., Ltd. (Noposion), the largest pesticide formulation enterprise in China, achieved a 6.48% year-on-year increase in the first half of 2012 in its revenue of fungicide business, though the company's total revenue decreased by 3.88% compared with that in H1 2011, according to Noposion's semi-annual financial report released on 11 Aug., 2012.

On the whole, Noposion's total revenue slid to USD175.44 million in H1 2012 and its net profit also witnessed a slip of 10.35% over the same period of last year to about USD18.31 million. In addition, the revenue of Noposion's main businesses reached USD174.91 million in H1 2012, accounting for about 99.70% of its total revenue, down 3.27% year on year.

Though Noposion's revenue from pesticide formulations, the most important business of the company, dropped by 2.51% year on year from Jan. to June 2012, it still amounted to USD163.36 million, taking up around 93.40% of the company's main business revenue.

It is particularly worth noting that the revenue of fungicide formulations, the second largest business of Noposion, saw a growth of 6.48% year on year in the first half of this year, reaching USD50.93 million. However, the revenue of Noposion's insecticide formulations, the largest business of the company, fell to USD81.96 million, down 5.95% year on year in H1 2012, and that of its herbicide formulations slid by 7.32% year on year in the mean time to USD28.71 million.

Furthermore, statistics from Noposion's semi-annual financial reports show that the revenue proportion of the company's fungicide formulations has been going up in recent years. For example, the revenue of Noposion's fungicide formulations reached about USD50.89 million (RMB323.72 million) in 2009, USD65.48 million (RMB416.55 million) in 2010 and USD70.88 million (RMB450.92 million) in 2011 respectively, accounting for

25.05%, 29.04% and 29.39% of the company's pesticide formulation revenue. In H1 2012, the revenue proportion of Noposion's fungicide formulations rose to 31.18%, higher than those of the previous years.

Generally, it is the increasing demand for fungicides from domestic market that has promoted Noposion to constantly adjust its product mix—strengthening its fungicide business. In addition, the higher gross profit margin of fungicides is also one of the key factors making Noposion realize that it can obtain more and more handsome profit through expanding production and enhancing promotion of its fungicide formulations.

As disclosed in Noposion's semi-annual financial report, the gross profit margin of the company's fungicide business was the highest in H1 2012, hitting 46.69%, while those of insecticides and herbicides were 41.10% and 33.42% respectively at the same time. Moreover, the gross profit margins of Noposion's fungicide formulations were 47.34% (2009), 49.53% (2010) and 49.45% (2011) separately, higher than those of its insecticides and herbicides, according to Noposion's financial reports (2009~2011).

With the constant launch of new fungicide formulations, such as difenoconazole•zhongshengmycin 16% WP, dimethomorph•fosetyl-aluminium 60% WP, dimethomorph•iprodione 40% SC and zhongshengmycin•zineb 46% WP, Noposion will continue enjoying revenue growth in its fungicide business in the second half of this year, which could be helpful to improve its integral performance to a certain extent.

TABLE 1: Noposion's main business situation, H1 2012

Main business	Revenue, million USD	YoY growth rate	Gross profit margin
Insecticides	81.96	-5.95%	41.10%
Fungicides	50.93	6.48%	46.69%
Herbicides	28.71	-7.32%	33.42%
Additives	1.76	9.14%	38.25%

Source: Noposion



## Lanfeng Biochemical: revenue slightly climbs but net profit significantly drops in H1 2012

Jiangsu Lanfeng Biochemical Co., Ltd. (Lanfeng Biochemical), a leading manufacturer of carbendazim and thiophanate-methyl in China, performed poorly in the first half of 2012—its revenue slightly climbed but net profit significantly dropped.

Specifically, Lanfeng Biochemical's revenue rose by 6.17% year on year to USD98.61 million (RMB627.31 million) in H1 2012, while its net profit witnessed a significant decline of 29.43% year on year to USD6.07 million (RMB38.61 million) in the mean time.

Lanfeng Biochemical is mainly engaged in the production and sales of pesticides and fine chemicals. Although the company's revenue of pesticide products increased by 10.16% in H1 2012 over the same period of last year to USD78.22 million (RMB497.29 million), it suffered a slide of 9.77% year on year in the revenue of fine chemical intermediates, decreasing to USD12.22 million (RMB77.71 million) at the same time. Under the circumstances, Lanfeng Biochemical's H1 2012 revenue only witnessed a slight growth.

As to the significant decline in the company's net profit in H1 2012, Lanfeng Biochemical mainly ascribed it to its gross profit margin decrease and administrative expense increase. As disclosed in Lanfeng Biochemical's semi-annual financial report, the gross profit margin of its pesticide products dropped by 2.14 percentage points in H1 2012 compared with that in H1 2011 to 17.41%.

By pesticide category, both fungicides and insecticides of Lanfeng Biochemical witnessed reduction in gross profit

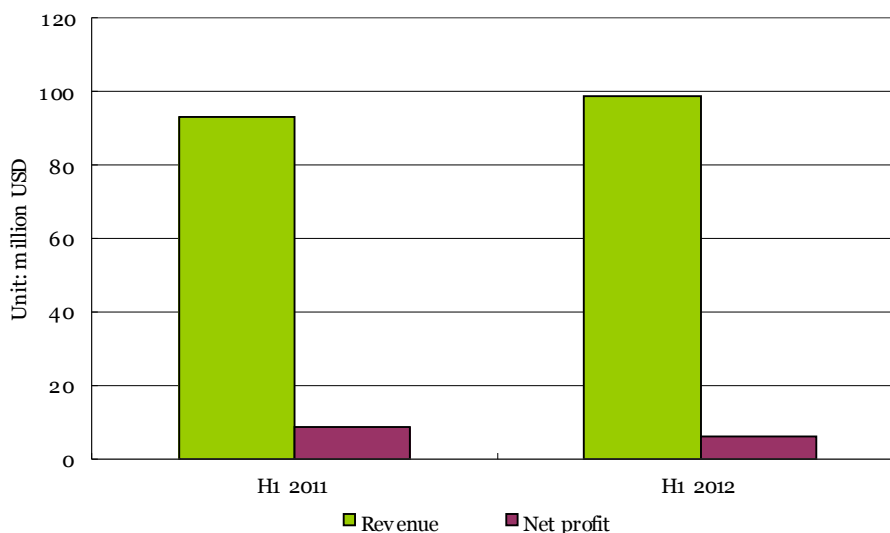
margin, down 2.92 percentage points and 10.39 percentage points year on year in the first half of this year to 16.28% and 6.90% respectively. Though the company's gross profit margin of herbicides grew by 10.62 percentage points to 33.77%, its integral decline of net profit in H1 2012 was still not improved.

Furthermore, the prices of its main products descended to a certain extent due to the intense market competition, which accordingly dragged down Lanfeng Biochemical's net profit in H1 2012. Take carbendazim technical for example, its ex-factory price was about USD4,583/t (RMB29,000/t) in June 2012, down 8.49% compared with that in Jan. 2012.

In addition, the increasing administrative expense was also one of the main factors resulting in net profit slide of Lanfeng Biochemical in H1 2012. Statistics from Lanfeng Biochemical show that the company's administrative expense surged to USD2.53 million (RMB16.09 million) in the first two quarters of this year. It is particularly worth noting that Lanfeng Biochemical strengthened its R&D investment, amounting to USD1.91 million (RMB12.16 million) in H1 2012, up 303.95% year on year.

Considering the current condition mentioned above, Lanfeng Biochemical predicted that its net profit in the first three quarters of 2012 may continue decreasing, down 35.00%~5.00% year on year to between USD7.87 million (RMB50.06 million) and USD11.50 million (RMB73.17 million).

FIGURE 1: Lanfeng Biochemical's revenue and net profit, H1 2011 and H1 2012



Source: Lanfeng Biochemical



## Huifeng Agrochemical turns performance decline around in H1 2012

Jiangsu Huifeng Agrochemical Co., Ltd. (Huifeng Agrochemical), a leading domestic company of prochloraz and epoxiconazole, successfully turned its performance decline around in the first half of 2012, enjoying double-digit growth in its revenue and net profit, which can greatly improve the company's competitiveness and increase investors' confidence.

As well known, Huifeng Agrochemical suffered from net profit decrease for two successive years (2010 and 2011). In detail, the company's net profit dropped by 13.46% year on year in 2010 to USD15.81 million (RMB100.71 million); in 2011, its net profit still did not get rid of the decline trend, reducing to USD9.79 million (RMB62.35 million), down 38.08% compared with that in 2010.

Fortunately, Huifeng Agrochemical's H1 2012 performance was very satisfactory. According to the company's semi-annual financial report, its revenue surged to USD112.20 million (RMB714.22 million) in the first two quarters of this year, up 83.18% over the same period of last year. Moreover, Huifeng Agrochemical's net profit witnessed an increase of 36.06% year on year to USD7.74 million (RMB49.24 million) in H1 2012.

Among all businesses, fungicide products, the largest business of Huifeng Agrochemical, contributed most to its integral performance from Jan. to June 2012. Specifically, the revenue of the company's fungicide products reached USD31.04 million (RMB197.97 million), accounting for 27.66% of its H1 revenue. What's more, the gross profit margin of Huifeng Agrochemical's fungicide products saw a rise of 6.03 percentage points year on year to 33.62%, the highest gross profit margin among all businesses of the company, but its gross profit margins of insecticides, herbicides and intermediates saw decrease in varying degrees in H1 2012.

It is particularly worth noting that intermediates have become the second largest business of Huifeng Agrochemical in the first half of 2012 with a sales value of USD29.44 million (RMB187.42 million). Moreover, the YOY growth rate of the company's intermediates' revenue was as high as 629.33% in the mean time. As a matter of

fact, in H1 2011, Huifeng Agrochemical's intermediate business ranked the last place by sales value compared with those of fungicides, herbicides and insecticides.

Owing to the good sales situation, Huifeng Agrochemical's another two key businesses, namely herbicides and insecticides, both witnessed increase in sales value in H1 2012, hitting USD22.92 million (RMB145.87 million) and USD22.71 million (RMB144.55 million) respectively.

Aside from key products' sales recovery, Huifeng Agrochemical gradually launched its investment raising projects, including 3,000t/a prochloraz technical and 5,000t/a bromoxynil octanoate technical, which enhanced the company's H1 2012 performance to a great extent.

Last but not least, Huifeng Agrochemical also further extended its core business chain through acquiring upstream suppliers of main raw materials, namely Yancheng Bvco Chemical Industry Co., Ltd. (Yancheng Bvco: 48.00% share) and Yancheng Confident Biochemical Technology Co., Ltd. (Yancheng Confident: 51.22% share). The gradual improvement of industry chain is one of the main factors that helped Huifeng Agrochemical rid of the bottom in H1 2012. As disclosed in Huifeng Agrochemical's semi-annual financial report, the net profits of Yancheng Bvco and Yancheng Confident in the first six months of this year were USD0.89 million (RMB5.68 million) and USD0.85 million (RMB5.43 million) respectively.

In the third quarter of 2012, Huifeng Agrochemical is committed to launching another investment raising project—epoxiconazole technical production line with the capacity of 1,000t/a. In addition, the company is very confident about its product sales situation and thus predicts that its net profit will continue enjoying a growth of 30.00%~50.00% year on year from Jan. to Sept. 2012.

TABLE 2: Huifeng Agrochemical's net profit situation, 2010-H1 2012

Year	Net profit, million USD	YOY growth rate, %
2010	15.81	-13.46
2011	9.79	-38.08
H1 2012	7.74	36.06

Source: Huifeng Agrochemical



## Qianjiang Biochemical avoids financial deficit in H1 2012 by relocation compensation

Zhejiang Qianjiang Biochemical Co., Ltd. (Qianjiang Biochemical), one of the leading biological pesticide companies in China, encountered a poor performance in the first half of 2012, but it avoided financial deficit by the large relocation compensation from the government.

As disclosed in Qianjiang Biochemical's semi-annual financial report, the company's operating profit was -USD65,513 (-RMB416,222) in H1 2012, down 101.43% compared with that in H1 2011. Fortunately, the company received about USD5.23 million (RMB33.28 million) of government subsidies in the name of removing compensation, and thus its net profit only decreased by 1.83% year on year to USD4.74 million (RMB30.15 million).

Actually, main products' revenues of Qianjiang Biochemical suffered from slide to varied degrees in the first half of this year, which is the most important factor dragging down the company's profitability. Statistics from the semi-annual financial report of Qianjiang Biochemical show that the revenue of the company's biological products including pesticides and veterinary drugs slumped by 37.68% year on year in H1 2012 to USD21.67 million (RMB137.73 million). In terms of pesticide products, the largest business of Qianjiang Biochemical, it witnessed a decrease of 30.34% in its revenue in H1 2012 over the same period of last year to USD18.98 million (RMB120.69 million).

Qianjiang Biochemical attributed the revenue decline of its main products to capacity reduction and export gloom. Specifically, in late 2011, Qianjiang Biochemical shut down its No. 2 branch factory, a key production base of the company's biological pesticides, according to the requirement of Haining Government, Zhejiang Province.

What's more, the construction of some related supporting production lines in its No. 3 branch factory has not been completed yet, which seriously impacted the production of the company's biological pesticides.

In addition, Qianjiang Biochemical's export business performed poorly in H1 2012 due to the foreign order decrease. In the first six months of this year, the company's export revenue dropped by 40.80% year on year to USD8.85 million (RMB56.27 million). Particularly, the export revenue of Qianjiang Biochemical's gibberellic acid fell by 28.88% year on year in H1 2012. Thus, it is not difficult to see that the H1 2012 gloomy export business brought quite a shock to Qianjiang Biochemical.

The board of directors of Qianjiang Biochemical anticipated that the company's performance will still meet difficulties in the second half of this year with the coming of pesticide sales off-season and the increasing prices of raw materials, like corn products and rice. Under the circumstances, Qianjiang Biochemical plans to strengthen the sales of some non-seasonal products and timely adjust purchasing plan of raw materials as well as make efforts to lower production cost through energy saving in H2 2012. Moreover, the company will launch its supporting production lines of biological pesticides in No. 3 branch factory by the end of Sept. this year to enhance its production capacity and thus guarantee market supply as soon as possible.

**TABLE 3:** Main products' sales situation of Qianjiang Biochemical, H1 2012

Main product	Revenue, million USD	YOY growth rate, %
Pesticides	18.98	-30.34
Veterinary drugs	2.69	-63.28
Steam	7.80	-5.83
Electricity	0.39	15.06
Others	2.15	-49.91

Source: Qianjiang Biochemical



## Company dynamics

### Shenyang Sciencreat's pyraoxystrobin to market in 2013

Shenyang Sciencreat Chemicals Co., Ltd. (Shenyang Sciencreat), a subsidiary company of Shenyang Research Institute of Chemical Industry (SYRICI), plans to put its exclusive pyraoxystrobin, an innovative strobilurin fungicide with high efficiency and environmental friendliness, into domestic market in 2013.

SYRICI, a leading chemical research institute in China, discovered pyraoxystrobin by using the intermediate derivatization method in 2003. Thereafter, SYRICI successfully developed three pyraoxystrobin formulations, including pyraoxystrobin 20% SC, flumorph•pyraoxystrobin 25% SC and chlorothalonil•pyraoxystrobin 28% SC.

After carrying out a series of indoor biological activity tests and field efficacy trials, Shenyang Sciencreat acquired two temporary registration certificates of pyraoxystrobin 95% TC and 20% SC from the Institute for the Control of Agrochemicals, Ministry of Agriculture (ICAMA) as early as 2009. In addition, the temporary registration of the company's flumorph•pyraoxystrobin 25% SC was also approved by ICAMA in early July 2012. As to chlorothalonil•pyraoxystrobin 28% SC, its registration is estimated to be approved in the next few months, according to a staffer of Shenyang Sciencreat.

On 15 Aug., 2012, the production certificates for Shenyang Sciencreat's pyraoxystrobin 95% TC, 20% SC and flumorph•pyraoxystrobin 25% SC were approved by the Ministry of Industry and Information Technology of the People's Republic of China (MIIT), which will be conducive to launch this innovative fungicide into market as soon as possible.

In line with the marketing strategy of Shenyang Sciencreat, the company plans to firstly promote pyraoxystrobin formulations in main vegetable planting regions of China, especially in Guangdong, Jiangsu, Zhejiang, Shandong and so forth, aided by its excellent control effect on various vegetable diseases, such as cucumber downy mildew, cucumber powdery mildew and tomato gray mold. Secondly, the company is committed to seizing more market share in the future through extending promotion of pyraoxystrobin formulations' application on fruits and grain crops, like apple, wheat, rice and corn.

As a matter of fact, in order to better promote pyraoxystrobin formulations in domestic market, Shenyang Sciencreat has done some preliminary preparation—providing some free trial products to farmers. A staffer from the company revealed that 20% SC and flumorph•pyraoxystrobin 25% SC have gained recognition from many farmers, which will help the market development of its new fungicide to a certain extent.

In addition to pyraoxystrobin, SYRICI has also successfully developed other innovative fungicides in recent years, such as enostroburin, fenamistrobins, coumoxystrobin, tricyclopyricarb, pyrisoxazole and pyrametostrobin. It is worth noting that fenamistrobins' promotion is relatively successful compared with other fungicides. Specifically, fenamistrobins•tebuconazole 20% SC (brand name: Aike) is popular in domestic market, and its sales volume reached over 160 tonnes in 2011, up 60% over 2009.

TABLE 4: Field efficacy of pyraoxystrobin 20% SC against cucumber downy mildew

Treatment	Concentration (mg/L)	Disease index before treatment	Disease index after treatment	Average control efficacy (%)
Pyraoxystrobin 20% SC	80	5.24	5.92	82.78
Azoxystrobin 25% SC	80	4.90	8.14	74.67
Metalaxyl 25% WP	400	5.12	10.95	67.44
Water control	-	5.00	32.82	-

Source: SYRICI





## BASF registers initium in China

**B**ASF, one of the world's leading chemical companies, successfully acquired two temporary registrations of initium 98% TC and dimethomorph•initium 47% SC from the Institute for the Control of Agrochemicals, Ministry of Agriculture (ICAMA) on 6 Aug., 2012, which will be beneficial to the promotion of this fungicide in China.

Furthermore, dimethomorph•initium 47% SC that consists of 20% dimethomorph and 27% initium was registered to prevent and control downy mildew of cucumber and grape with the recommended dosages of 283.8~425.7g/ha. and 262.5~525g/ha. respectively.

It is well known that downy mildew is a key and devastating crop disease worldwide. Take cucumber downy mildew for example, cucumber's yield may reduce by 10%~20% when this disease's occurrence is moderate, and the yield reduction will even exceed 50% when the disease occurs seriously. Meanwhile, grape and cucumber are two major crops with large planting areas in China. That is to say that the market prospect of dimethomorph•initium 47% SC is bright to thanks to the robust demand for fungicides against downy mildew.

Statistics from ICAMA show that the registration quantity of fungicides that are used to fight against grape downy mildew has reached 169 in China as of late Aug. 2012, and that for cucumber downy mildew amounted to 756 at the same time. These registered fungicides mainly include mancozeb, chlorothalonil, fosetyl-aluminum,

dimethomorph, metalaxyl, propamocarb, cymoxanil and so on.

Compared with the above fungicides, initium has a unique action mechanism, and thus it is expected to enjoy favor among retailers and farmers. In detail, initium, developed by BASF in 2004, is a potent mitochondrial respiration inhibitor as a new class of chemical, the pyrimidylamines. More specifically, initium interferes with complex III, a membrane protein complex. By inhibiting complex III, initium impairs the electron transportation in the respiratory chain of the pathogen, making it unable to generate energy required for keeping the organism alive. In addition, initium is not cross-resistant to phenylamides (e. g. metalaxyl), Qo inhibitors (e. g. strobilurins) and carboxylic acid amides (e. g. dimethomorph).

In addition to downy mildew of cucumber and grape, initium can also prevent and control other downy mildews in cucurbits and vegetables as well as late blight of potato and tomato. Thanks to the product's excellent control effect on various crop diseases, before the registrations of BASF's initium products were approved in China, the product had been registered in Australia, U. K., the U. S., Romania and Italy. To better complement the spectrum of activity and reduce selection pressure for resistance, BASF plans to market its initium in ready-mixtures with other oomycete active compounds all over the world.

**TABLE 5:** Registration of BASF's initium in China, Aug. 2012

Registration no.	Specification	Effective date	Expiry date
LS20120281	dimethomorph•initium 47% SC	2012.08.06	2013.08.06
LS20120280	98% TC	2012.08.06	2013.08.06

Source: ICAMA

## Market analysis

### Ethylenediamine price keeps downturn in 2012

**A**s a result of the increasing capacity, the ex-factory price of ethylenediamine, an important fine chemical intermediate mainly used in pesticide industry to produce imidacloprid, amobam, zineb and mancozeb, began to plummet in China in the second half of last year. What's more, it didn't manage to go up in 2012 and kept downturn from Jan. 2012 to early Sept. 2012. And it is estimated that the ex-factory price of ethylenediamine will still remain in a stagnant state in the next few months of this year.

Specifically, domestic ex-factory price of ethylenediamine dropped to about USD2,520/t (RMB16,000/t) in early Sept. 2012, down 26.14% compared with that in early Jan. 2012 and down 55.24% over the same period of last year, according to CCM's monthly price monitoring.

Besides, it can be seen from the price trend chart that the ex-factory price decrease range of ethylenediamine was bigger in the first three months over the following months of this year. In detail, the ex-factory price of this



intermediate fell to USD2,691/t (RMB17,000/t) in March 2012, slipping by 21.13% and 19.26% over Jan. and Feb. respectively. Whereas, in the next six months of this year, namely from April to early Sept., its ex-factory price decline range was smaller, only 6.49%.

It is particularly worth noting that the ex-factory price of ethylenediamine fell below USD3,000/t (RMB18,948/t) in March 2012 for the first time this year. Since May 2012, the product's ex-factory price has been maintaining at about USD2,500/t (RMB16,000/t), and actually, only the currency exchange rate change affected it.

Generally, the increasing capacity of ethylenediamine is the most important factor that resulted in the price fall of the product in China. Before 2010, China's ethylenediamine was mainly imported from overseas countries, such as Japan, the U. S., Germany and Netherlands. Under the circumstances, the price of this intermediate was relatively high in the past years. Fortunately, this situation has turned much better in recent two years, especially in 2011.

China's capacity of ethylenediamine witnessed jump as several key manufacturers gradually launched their ethylenediamine. So far, key ethylenediamine manufacturers in China include Jiangxi Hurricane Chemical Co., Ltd. (Jiangxi Hurricane), AkzoNobel Chemicals (Ningbo) Co., Ltd. (AkzoNobel Ningbo), Shandong Lianmeng Chemical Co., Ltd. (Lianmeng Chemical), etc.

In detail, Jiangxi Hurricane, a subsidiary of Jiangxi Ganxi Chemical Co., Ltd., has run its ethylenediamine production line with the capacity of 10,000t/a since middle Sept. 2010. Moreover, the company plans to additionally set

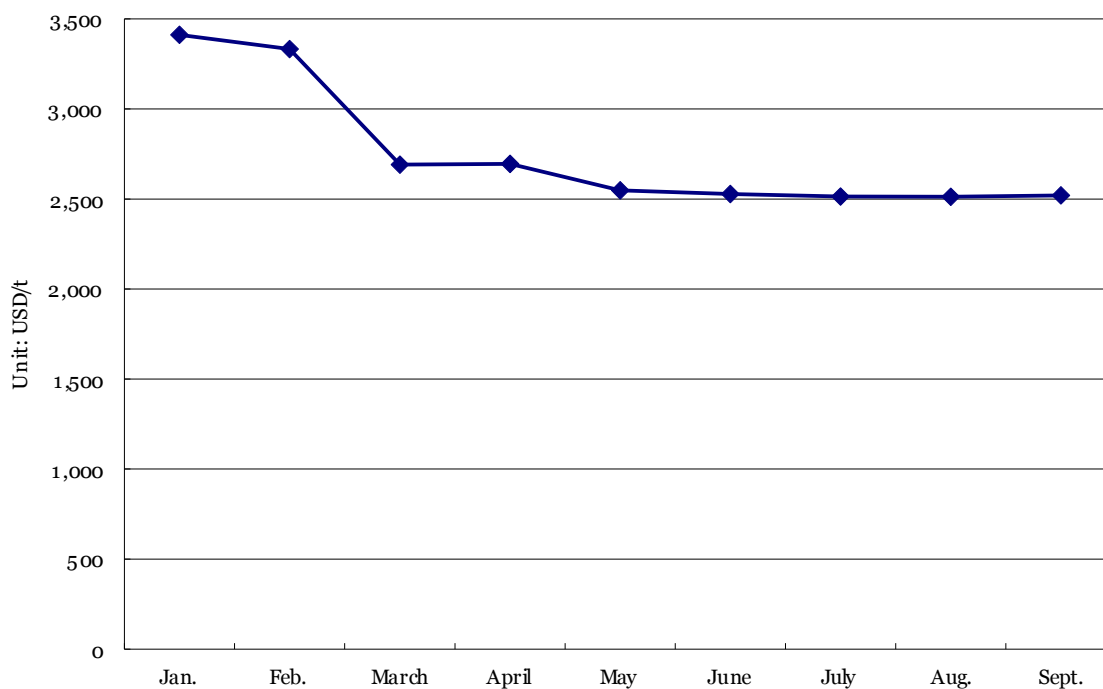
up a 40,000t/a production line of ethylene amines with the investment of about USD82.84 million (RMB526.00 million) in the future.

In May 2011, AkzoNobel Ningbo's 35,000t/a ethylene amines production line, which is located in Ningbo Chemical Industrial Park, was put into operation. In Aug. of the same year, Lianmeng Chemical, a subsidiary of Shandong Lianmeng Chemical Group Co., Ltd., successfully ran its 10,000t/a ethylenediamine production line. Also, it aims to expand this intermediate's capacity to 50,000t/a over the next three to five years.

With the breakthrough in production technology, more domestic companies interested in ethylenediamine will gradually enter this field in the near future, which will push up its capacity to a certain extent. Then, it is conceivable that the competition inside ethylenediamine industry may be quite intense. Thus domestic companies should avoid blind expansion that will result in malignant competition.

Currently, domestic ethylenediamine's quotation is at a lower level compared with that in previous years, and it is estimated to remain stagnant in the rest months of 2012 with the coming of consumption off-season of pesticide industry.

FIGURE 2: Ex-factory price of ethylenediamine in China, Jan. 2012~early Sept. 2012



Source: CCM



## Fungicides to control rice blast enjoy fast sale recently

Recently, fungicides that are used to control rice blast have been enjoying fast sale in main middle and late rice planting regions of China, such as Jilin, Liaoning, Heilongjiang, Tianjin, Jiangsu, Zhejiang, Yunnan, Fujian and Guangdong, with the advent of high incidence of this disease (usually from July to Sept. each year).

Rice blast is one of the major rice diseases in rice planting regions all over the country and usually occurs on large scale every year mainly due to the abundant cardinal number of disease pathogen and rainy weather. As middle and late rice gradually entered the vigorously growing stage, rice blast witnessed quick spreading since July this year. Statistics from the National Agro-Tech Extension and Service Center (NATESC) show that the accumulative occurred area of rice blast reached about 2.16 million ha. in China as of mid-Aug. 2012, up 6.2% over last week.

As a result of the large scale occurrence of rice blast, demand for conventional chemical fungicides to fight against this disease such as tricyclazole and isoprothiolane has been robust in most rice planting regions since July 2012 aided by their moderate prices and the application habits of a majority of domestic farmers. Take tricyclazole for example, although this fungicide's control efficacy has reduced due to successive years of application, its sales volume still witnessed increase to a certain extent with the high incidence of rice blast. According to Hangzhou Southern Suburb Chemical Co., Ltd. and Jiangsu Fengdeng Pesticide Co., Ltd., two leading manufacturers of tricyclazole technical and formulations in China, their production lines of this fungicide have been operated with full capacity recently thanks to a large amount of product orders.

Besides, some relatively new fungicides with high efficiency, low toxicity and environmental friendliness used to control rice blast such as fenoxanil, prochloraz, tebuconazole, epoxiconazole and azoxystrobin, are becoming more and more popular in domestic rice fungicide market, attributed to their excellent control efficacy and the enhanced promotion. Driven by the bright market prospect, more companies interested in the above fungicides have gradually joined this field, such as Shenzhen Noposition Agrochemicals Co., Ltd., Jiangsu Changqing Agrochemical Co., Ltd., Jiangsu Flag Chemical Industry Co., Ltd. and Shaanxi Meibang Pesticide Co., Ltd.

Last but not least, some key biological fungicides such as bacillus subtilis, bacillus cereus and kasugamycin, also enjoy growing favor in China with the increasing public awareness of food safety and environmental protection. What's more, Chinese government has been vigorously strengthening the promotion of biological pesticides in recent years, which accordingly raised their sales volume to some extent in domestic market.

According to NATESC's predication, an additional about 2.0 million ha. of middle and late rice (accumulative area) will be stricken by rice blast in the next few weeks. Therefore, it is estimated that the sales volume of fungicides used to control this disease will keep rising in Sept. and Oct. 2012 with the further extension of stricken area in main rice planting regions of China.

## Fungicide import jumps but export slides in China in first seven months of 2012

China's fungicide import witnessed a significant jump from Jan. to July 2012, but its export suffered slide in the meantime, according to the General Administration of Customs of the People's Republic of China (GAC).

Specifically, the import volume of fungicides in China reached around 15,507 tonnes, up 24.35% year on year in the first seven months of this year, and the import value of fungicides increased by 34.86% year on year to about USD174.31 million. However, domestic export volume of fungicides decreased to about 42,521 tonnes, down 8.30% over the same period of 2011, and the export value also saw a drop of 11.94% year on year to around USD203.81 million.

By packing type, China's import volume of non-retail packing fungicides was about 14,705 tonnes from Jan. to July 2012, much higher than that of retail packing one, about 802 tonnes. And the export volume of non-retail packing fungicides hit around 31,400 tonnes, almost three times as much as that of retail packing one, around 11,121

tonnes.

The top six import sources of China's fungicides included Germany, India, France, the US, Japan and Columbia respectively in the first seven months of this year, with import volumes of 2,953 tonnes, 2,413 tonnes, 2,031 tonnes, 1,096 tonnes, 909 tonnes and 743 tonnes respectively. It is worthy of noting that the import proportion of the top six sources reached about 65.12% during this period.

Meanwhile, the top six import ports of fungicides in China were Shanghai, Huangpu, Tianjin, Hangzhou, Qingdao and Ningbo separately, with import volumes of 8,181 tonnes, 2,472 tonnes, 2,251 tonnes, 1,156 tonnes, 556 tonnes and 327 tonnes. Moreover, the fungicide import volume of the top six ports accounted for 96.36% of the total in the first seven months of this year.

In terms of export, Vietnam, Indonesia, Ukraine, Thailand, Columbia and Philippines were the top six



export destinations of domestic fungicides from Jan. to July 2012, with export volumes of 4,143 tonnes, 2,628 tonnes, 1,862 tonnes, 1,849 tonnes, 1,784 tonnes and 1,682 tonnes respectively. What's more, the export volume of fungicides to Vietnam was far higher than those to other destinations.

The top six export ports for Chinese fungicides included Shanghai, Nanjing, Tianjing, Qingdao, Nanning and Ningbo, with export volumes of 35,051 tonnes, 3,746 tonnes, 1,565 tonnes, 650 tonnes, 545 tonnes and 388 tonnes respectively. It is not hard to see that fungicides' export volume of Shanghai port took up 82.43% of the total during the period.

The imported and exported fungicide varieties were similar in 2011 and 2012. Furthermore, the main imported fungicides in the first seven months of 2012 were mancozeb, difenoconazole, pyraclostrobin, trifloxystrobin, azoxystrobin, etc. Thereinto, the consumption volumes of mancozeb and difenoconazole, two conventional

fungicides, are very large in China. The rest ones enjoy growing favor thanks to their high efficacy, broad spectrum and low toxicity.

At the same time, China's exported fungicides to overseas market mainly covered some conventional varieties, such as carbendazim, tebuconazole, chlorothalonil, mancozeb and propiconazole. Among all these varieties, carbendazim was still the largest one exported to foreign countries, followed by tebuconazole.

It is estimated that China's import volume of fungicides will remain going up in the rest months of 2012 (Aug.~Dec.) in line with the current growth trend, while fungicide export may still witness fall to a certain extent in the off-season of fungicide export (generally speaking, the first half of each year is the peak season for pesticide export, including fungicides).

**TABLE 6:** Fungicide import and export situation in China, Jan.~July 2011 and 2012

Fungicide	Jan.~July 2011	Jan.~July 2012
Import volume, tonne	12,470	15,507
Import value, million USD	129.25	174.31
Export volume, tonne	46,368	42,521
Export value, million USD	231.45	203.81

Source: GAC

**TABLE 7:** Top 10 import sources and export destinations for fungicides in China, by volume, Jan.~July 2012

Import source	Volume, tonne	Export destination	Volume, tonne
Germany	2,953	Vietnam	4,143
India	2,413	Indonesia	2,628
France	2,031	Ukraine	1,862
The US	1,096	Thailand	1,849
Japan	909	Columbia	1,784
Columbia	743	Philippines	1,682
Spain	696	Egypt	1,552
Taiwan	568	America	1,378
Britain	561	Belgium	1,213
Switzerland	496	Chile	1,156

Source: GAC



## First domestic azoxystrobin mixture registered by Shaanxi BiaoZheng

**S**haanxi BiaoZheng CropScience Co., Ltd. (Shaanxi BiaoZheng), one of the wholly-owned subsidiaries of Shenzhen Noposion Agrochemicals Co., Ltd. (Noposion), successfully obtained the temporary registration of difenoconazole•azoxystrobin 30% SC from the Institute for the Control of Agrochemicals, Ministry of Agriculture (ICAMA) on 27 Aug., 2012, which makes Shaanxi BiaoZheng the first domestic company to own azoxystrobin mixture so far, bringing it handsome profit in the near future.

As disclosed by ICAMA, Shaanxi BiaoZheng's difenoconazole•azoxystrobin 30% SC which consists of 18% difenoconazole and 12% azoxystrobin, is registered to prevent and control pepper anthracnose with the recommended application dosage of 90~144g/ha.

Mr. Duan, Product Manager of Shaanxi BiaoZheng responsible for fungicide products, reveals that the company's difenoconazole•azoxystrobin 30% SC will probably enter domestic market in early Oct. 2012; in line with the marketing strategy of the company, this new azoxystrobin mixture will be mainly promoted in southern market of China, especially in Jiangsu, Zhejiang, Guangdong, Hainan, Fujian and so on. Secondly, Noposion plans to expand its sales in northern greenhouse vegetable planting regions, such as Shandong, Shaanxi, Hebei and Heilongjiang.

Owing to the unique characteristic and excellent control efficacy of the product, Shaanxi BiaoZheng and Noposion are fully confident about the future market prospect of difenoconazole•azoxystrobin 30% SC. Specifically, this product is a mixture based on the active ingredients of azoxystrobin and difenoconazole, both already well-known in the market for crop protection on a large number of crops. Particularly, azoxystrobin is the most important and best-selling fungicide in the world with annual sales totalling more than USD1 billion.

In addition, the synergies of azoxystrobin, being a strobilurin, and difenoconazole, being a triazo, open a broader spectrum of effectiveness and reduce the development of resistance. As well known, some triazole fungicides can cause side effects such as preventing plant growth for a period, thus affecting yield of crop growers. However, Shaanxi BiaoZheng's difenoconazole•azoxystrobin 30% SC does not cause this injury.

Mr. Duan expresses that the field control efficacy of difenoconazole•azoxystrobin 30% SC against pepper anthracnose can reach as high as about 80% after application at early stage of disease. Effective prevention characteristic coupled with good treatment effect contribute to boost sales and profitability of this mixed azoxystrobin formulation in China.

Considering the broad-spectrum of difenoconazole•azoxystrobin 30% SC, Shaanxi BiaoZheng is committed to extending its registration on other crops, such as grape, banana, watermelon, citrus and rice. Besides, the company has been strengthening the development of azoxystrobin with other active ingredients, including propiconazole, prochloraz, etc. It is worthy of noting that additional new azoxystrobin mixtures may come out soon, says Mr. Duan.

Apart from Shaanxi BiaoZheng, Shandong Zhaofengnian Bio-technology Co., Ltd., another subsidiary of Noposion, registered azoxystrobin 50% WDG on cucumber downy mildew on 6 Aug., 2012. It is estimated that Noposion's other subsidiaries will also join the field of azoxystrobin formulations in the near future. With bright market prospect, Noposion expects that its revenue of all azoxystrobin formulations would amount to over USD787,500 (RMB5 million) in 2013, which can greatly enhance its overall performance of fungicides.

**TABLE 8:** Registration situation of azoxystrobin formulations in China, as of early Sept., 2012

Company	Registration no.	Specification	Effective date	Expiry date
Syngenta	PD20060033	250g/L SC	2008.09.25	2013.09.25
	PD20070203	50% WDG	2012.08.07	2017.08.07
	PD20090296	25% SC	2009.01.09	2014.01.09
	PD20102063	azoxystrobin-chlorothalonil 560g/L SC	2010.11.03	2015.11.03
	PD20110357	difenoconazole-azoxystrobin 325g/L SC	2011.04.11	2016.04.11
	PD20120464	metalaxyl-M-fludioxonil-azoxystrobin 11% FS	2012.03.19	2017.03.19
	LS20110194	propiconazole-azoxystrobin 18.7% SC	2012.07.18	2013.07.18
Mesa Tech International Inc.	PD20111160	250g/L SC	2011.11.07	2016.11.07
Lier Chemical Co., Ltd.	PD20120706	250g/L SC	2012.04.18	2017.04.18
Jiangsu Flag Chemical Industry Co., Ltd.	PD20120956	250g/L SC	2012.06.14	2017.06.14
Zhejiang Bosst CropScience Co., Ltd.	PD20120353	25% SC	2012.02.23	2017.02.23
Shandong Zhaofengnian Bio-technology Co., Ltd.	PD20121187	50% WDG	2012.08.06	2017.08.06
Leji Chemical Co., Ltd.	PD20121014	250g/L SC	2012.07.02	2017.07.02
Beijing Huarong Biological Hormone Plant	LS20120151	60% WDG	2012.04.12	2013.04.12
Shaanxi BiaoZheng CropScience Co., Ltd.	LS20120303	difenoconazole-azoxystrobin 30% SC	2012.08.27	2013.08.27
Shanghai Heben-Eastsun Medicaments Co., Ltd.	PD20110783	250g/L SC	2011.07.25	2016.07.25

Source: ICAMA



## Disease

### Rice diseases and insect pests continue spreading

Rice diseases and insect pests continue spreading in main rice planting regions of China, and the total stricken area has reached about 51.33 million ha. (accumulative area, similarly hereinafter) as of 16 Aug., 2012, up 12.0% over last week and 13.1% year on year, according to the National Agro-Tech Extension and Service Center (NATESC).

At present, three main diseases striking rice include rice sheath blight, rice blast and southern rice black-streaked dwarf disease. Thereinto, rice sheath blight, the largest rice disease by occurrence area, has hit around 12.67 million ha. of rice in China by Aug. 16, increasing by 14.2% compared with that in the previous week. To effectively prevent and control rice sheath blight, phenazino-1-carboxylic acid, epoxiconazole, trifloxystrobin•tebuconazole, etc., are recommended to domestic farmers by NATESC.

Moreover, rice blast spreads quickly in coastal regions of East China, such as Liaoning, Tianjin, Shandong, Jiangsu, Fujian and Guangdong, and it is occurring seriously in Southwest China, middle and lower reaches of Changjiang River and Jianghuai rice planting regions with the ratio of diseased leaf of 20.0%-25.0%. Statistics from NATESC show that this disease's occurrence area has risen by 6.2% in China by Aug. 16 over last week to about 2.16 million ha. Accordingly, some fungicides are also recommended to fight against rice blast, including tricyclazole, prochloraz, epoxiconazole, tricyclopriarb, jingangmycin•bacillus cereus, bacillus subtilis, cytosinpeptidemyein and so forth.

In addition, southern rice black-streaked dwarf disease, the most serious rice virus disease which is transmitted by rice planthopper, continues spreading in rice planting regions of South China, and its occurrence area has

reached 190,667 ha., up 23.1% compared with that in last week. It is worth noting that the average ratio of diseased rice plant has exceeded 3.0% in Hunan Province, higher than that of other regions. Currently, few fungicides can prevent and control southern rice black-streaked dwarf disease, and NATESC suggests that ningnanmycin, a kind of microbial fungicide with independent intellectual property right, can coordinate with other insecticides to fight against this virus disease.

As for key rice insect pests, including rice planthopper, rice leaf roller, rice stem borer and yellow rice borer, their occurrence situation is very serious in main rice planting regions of China recently. Specifically, the total stricken areas of these four key rice insect pests has reached about 36.00 million ha. as of 16 Aug., 2012. In addition, etofenprox, buprofezin, pymetrozine, imidacloprid, isoprocarb, profenofos, chlorantraniliprole, bacillus thuringiensis, etc., are recommended to control the above rice insect pests by NATESC.

NATESC predicted that the occurrence area of major rice diseases and insect pests will further extend in China in the next few weeks. For example, rice planthopper and rice leaf roller will more seriously occur in South China, Southwest China and Changjiang River Basin; rice blast will still post seriously epidemic risk to most part of Northeast China; southern rice black-streaked disease will continue spreading in rice planting regions of Southwest China, Jiangnan Area and the middle reach of Changjiang River.

**TABLE 9:** Occurred areas of key rice diseases and insect pests in China, as of 16 Aug., 2012

Key rice disease/insect pest	Occurred area, million ha.
Rice sheath blight	12.67
Rice blast	2.16
Southern rice black-streaked disease	0.19
Rice planthopper	16.00
Rice leaf roller	10.00
Rice stem borer/yellow rice borer	10.00

Source: NATESC

## Potato late blight occurs seriously in Gansu

Potato late blight, a major potato fungal disease, has occurred seriously in Gansu Province of China recently, the severest one since 1997. Specifically, the total stricken area of the disease has accumulatively reached around 391,353 ha. as of mid-Aug. 2012, up 155.2% over the same period of last year, according to Gansu Plant Protection Station (GPPS).

It is well known that Gansu is one of the main potato production provinces in China, with a total planting area of about 733,333 hectares in 2012. It is clearly seen from the above data that the occurred area of potato late blight has accounted for 53.37% of Gansu's total potato planting area this year. What's more, the occurrence degree of this disease will further worsen in the next several weeks, and it is predicted to exceed 533,333 ha. in the whole province by Oct. of this year.

The large cardinal number of potato late blight pathogen caused by the continuous cultivation for many years is one of the major factors for the severe epidemic of this disease in Gansu this year. Besides, the planting area of potato susceptible varieties has exceeded 60.0% of the total potato planting area. According to GPPS, key potato varieties in Gansu include Longshu No. 3, Longshu No. 5,

Longshu No. 6, Longshu No. 7, Kexin No. 2, Kexin No. 6, Tianshu No. 9, Weishu No. 8, Zhangshu No. 3, Qingshu No. 6, Atlantic, Dabaihua, Xindaping, Zihuabai and so on. Last but not least, the rainy weather in Gansu since this summer is favorable for the outbreak of potato late blight.

To guarantee potato production, Gansu government and agricultural departments have actively adopted a series of measures to fight against potato late blight with the total investment of about USD3.94 million (RMB25.00 million) as of mid-Aug. 2012. Moreover, the accumulative controlled area of potato late blight has hit around 310,667 ha., taking up 79.38% of the total stricken area in Gansu.

In addition, to effectively control the spreading of potato late blight, fungicides with high efficacy and low toxicity were recommended to local growers by GPPS and National Agro-Tech Extension and Service Center (NATESC), including metalaxyl, mancozeb, mandipropamid, propamocarb, dimethomorph•mancozeb, fluopicolide•propamocarb and so forth. It is estimated that demand for these fungicides mentioned above will witness increase with potato late blight spreading in the next few weeks.

**PICTURE 1:** Grower controls potato late blight in Gansu, Aug. 2012



Source: <http://gansu.gansudaily.com.cn>



## Registration

### Phenazino-1-carboxylic acid 1% SC gains second registration in China

On July 30, 2012, Jiangxi Poer Agricultural Engineering Co., Ltd. (Jiangxi Poer), a domestic pesticide enterprise, gained the formal registration of phenazino-1-carboxylic acid 1% SC, mainly for rice sheath blight and pepper blight, according to the Institute for the Control of Agrochemicals, Ministry of Agriculture (ICAMA).

Before the registration of Jiangxi Poer, a leading biological fungicide producer in China, namely Shanghai Nongle Biological Products Co., Ltd. (Shanghai Nongle), is the only enterprise that has gained the registration of 95% phenazino-1-carboxylic acid TC and phenazino-1-carboxylic acid 1% SC, mainly for rice sheath blight, pepper blight and watermelon fusarium wilt, in China. As compared with Shanghai Nongle, the registration control objects of Jiangxi Poer lack one disease, watermelon fusarium wilt. In addition, phenazino-1-carboxylic acid 1% SC is the first product that Jiangxi Poer has registered since 2009.

Phenazino-1-carboxylic acid, an innovative microbial fungicide, has excellent control effect on various diseases, especially melon gummy stem blight, fusarium wilt of cucumber and watermelon, pepper root rot, etc. It was developed by Shanghai Jiao Tong University in 2005 which acquired a patent in 2008. Cooperating with Shanghai Jiao Tong University on biological pesticides R&D, Shanghai Nongle declared to massively produce the product in 2010. (Please refer to Fungicide China News 1105: *Phenazino-1-carboxylic acid eyes bright prospect*). According to Shanghai Nongle, the product has been selling well in recent years.

Reportedly, Jiangxi Poer has established a strategic cooperative relationship with Shanghai Nongle and invested in a project of biological pesticides jointly in 2008. Besides, the project's capacity of technical is reported to be 10,000t/a while that of formulations would be 5,000t/a after the project is finished and it is expected to launch in Oct. 2012. Then, Jiangxi Poer would produce phenazino-1-carboxylic acid 1% SC, aided by the support of Shanghai Nongle. In addition, Jiangxi Poer would be also enhancing the development of new products in the near future.

It is predicted that phenazino-1-carboxylic acid would have a bright market prospect in China, even though jingangmycin, a common fungicide to control rice sheath blight, is occupying a large market share. With jingangmycin's decreasing control effect, farmers are willing to find other substitutes. Phenazino-1-carboxylic acid 1% SC is well accepted by the market, with a series of products listed as the promotional focus products by the National Agricultural Technology Extension and Service Center since 2011. Moreover, phenazino-1-carboxylic acid 1% SC was selected as one of the strongly recommended varieties of pesticides in Shanghai in 2012. Actually, the promotion of phenazino-1-carboxylic acid concentrates in most regions in China, such as Hubei, Hunan, Jiangxi, Guangdong, Anhui, Fujian, Jiangsu and Zhejiang.

TABLE 10: Phenazino-1-carboxylic acid registration in China, as of July 30, 2012

Registrant	Registration no.	Content	Expiry date
Shanghai Nongle Biological Products Co., Ltd.	PD20110314	95% TC	2016.03.23
	PD20110315	1% SC	2016.03.23
Jiangxi Poer Agricultural Engineering Co., Ltd.	PD20121152	1% SC	2017.07.30

Source: ICAMA







## Fungicide registration overview in Jan.-Aug. 2012

From Jan. 1 to Aug. 2, 2012, the registered number of fungicides reached 388 in China, exclusive of registration's renewal, according to the Institute for the Control of Agrochemicals, Ministry of Agriculture (ICAMA). Thereinto, the registered number of fungicide TC was 27; that of fungicide formulations was 361, including single and mixed ones.

In terms of the registrations of fungicide TC during Jan. 1-Aug. 2, 2012, azoxystrobin TC is the hottest registered product in China. It is well known that azoxystrobin, a strobilurin fungicide, is the most popular fungicide in the world with annual sales value of over USD1.0 billion at present. Coupled with its patent expired in Feb. 2010 in China, a large number of domestic agrochemical manufacturers were attracted to register and produce it.

Tricyclopyricarb, whose common name has gained ISO's interim approval recently, was researched and developed by Shenyang Research Institute of Chemical Industry (SYRICI). The new registration of tricyclopyricarb was gained by Jiangsu Baoling Chemical Co., Ltd., a partner of SYRICI in June 2012.

During the period, Guizhou Daoyuan Technology Co., Ltd. gained the registration of albendazole in China. And the company is also the only one that has gained the registration in China at present. Albendazole, a benzimidazole fungicide, can prevent and control downy mildew, rot mildew and powdery mildew effectively. The chemical structure and antibacterial mechanism are similar as those of carbendazim.

In addition, picoxystrobin is registered to fight against watermelon gummy stem blight and anthracnose as well as banana leaf spot and scab. At present, only DuPont has obtained two temporary registration certifications of picoxystrobin 97% TC and 22.5% SC in China, according to ICAMA.

As to the registration of formulations, including single and mixed ones, some fungicide varieties are hot during Jan. 1-Aug. 2, 2012, such as difenoconazole, tebuconazole, dimethomorph, prochloraz and hexaconazole.

From Jan. 1 to Aug. 2, 2012, the registered number of difenoconazole formulations reached 60, according to ICAMA. In China, demand for difenoconazole has witnessed a high growth in recent few years, aided by its excellent disease prevention and control efficiency on rice, wheat, fruits and so forth. Most of the difenoconazole manufacturers are intent on enhancing promotion, not only single formulations but also mixed ones.

Both the registration number of tebuconazole and dimethomorph formulations is 39 during the period. It is well known that tebuconazole has been widely applied to prevent and control various diseases on various kinds of crops, such as rice, wheat, corn, banana, pear and

apple. Tebuconazole has been in popularity in China in recent years, thanks to the vigorous promotion and excellent control effect. Many companies registered tebuconazole for its bright market prospect in China. And the registration number is also a reflection of its rapid development trend in China. Meanwhile, a large number of domestic agrochemical companies have vigorously promoted dimethomorph formulations in recent years thanks to their excellent control effect. As a result, the registration quantity of dimethomorph formulations has gone up accordingly.

From Jan. 1-Aug. 2, 2012, 31 prochloraz formulations have gained registration in China. Recently, prochloraz formulations' application development on rice diseases is hot and many agrochemical companies are expected to gain registration of prochloraz formulations.

Hexaconazole formulations are also one of the hot fungicide formulations in China. According to ICAMA, 26 hexaconazole formulations have gained registration from Jan. 1-Aug. 2, 2012.

**TABLE 11:** Registration of fungicide TC in China, Jan. 1-Aug. 2, 2012

Number	Fungicide TC	Registered number
1	azoxystrobin	7
2	epoxiconazole	2
3	tebuconazole	2
4	difenoconazole	1
5	propiconazole	1
6	albendazole	1
7	picoxystrobin	1
8	polyoxin B	1
9	dithianon	1
10	fluazinam	1
11	cyproconazole	1
12	metalaxyl	1
13	captan	1
14	tricyclopyricarb	1
15	kresoxim-methyl	1
16	cyprodinil	1
17	fentin hydroxide	1
18	probenazole	1
19	ipconazole	1
<b>Total</b>		<b>27</b>

Source: ICAMA



## Price

### Monthly ex-factory and market prices of key fungicide raw materials, 10 Sept., 2012

Raw material/ intermediate	Ex-factory price						Market price					
	10 Sept. 2012		10 Aug. 2012		Sept. 2011		10 Sept. 2012		10 Aug. 2012		Sept. 2011	
	USD/t	RMB/t	USD/t	RMB/t	USD/t	RMB/t	USD/t	RMB/t	USD/t	RMB/t	USD/t	RMB/t
2,6-Dimethyl aniline	7,883	50,000	8,323	53,000	9,383	60,000	8,846	56,250	8,393	53,450	9,453	60,450
2,4,6-Trichlorophenol	2,050	13,000	1,727	11,000	2,189	14,000	2,225	14,150	1,798	11,450	2,260	14,450
O-phenylenediamine	4,257	27,000	4,318	27,500	5,442	34,800	5,544	35,250	4,389	27,950	5,512	35,250
M-xylene	1,797	11,400	1,759	11,200	1,970	12,600	2,084	13,250	1,829	11,650	2,041	13,050
Ethylenediamine	2,523	16,000	2,512	16,000	5,630	36,000	5,339	33,950	2,583	16,450	5,700	36,450
1,2,4-Triazole	6,622	42,000	6,124	39,000	5,317	34,000	5,591	35,550	6,195	39,450	5,387	34,450
Sulphur	255	1,620	259	1,650	360	2,300	425	2,700	330	2,100	430	2,750

Note: Ex-factory price includes VAT.

Source: CCM

### Monthly ex-factory prices of main fungicides, 10 Sept., 2012

Technical	10 Sept. 2012		10 Aug. 2012		Sept. 2011		Formulation	10 Sept. 2012		10 Aug. 2012	
	USD/t	RMB/t	USD/t	RMB/t	USD/t	RMB/t		USD/t	RMB/t	USD/t	RMB/t
Dimethomorph 95%TC	15,293	97,000	15,232	97,000	17,311	110,700	50% WP	9,144	58,000	9,108	58,000
Chlorothalonil 98%TC	4,099	26,000	4,114	26,200	4,308	27,550	75% WP	4,099	26,000	3,926	25,000
Mancozeb 90%TC	2,838	18,000	2,874	18,300	4,230	27,050	80% WP	2,680	17,000	2,717	17,300
Isoprothiolane 97%TC	5,266	33,400	5,245	33,400	5,247	33,550	-	-	-	-	-
Carbendazim 98%TC	4,414	28,000	4,507	28,700	4,934	31,550	50% SC	2,838	18,000	3,188	20,300
Thiophanate- methyl 96%TC	4,178	26,500	4,271	27,200	4,728	30,300	70% WP	4,099	26,000	3,847	24,500
Phosethyl-Al 97%TC	2,964	18,800	2,952	18,800	29,79	19,050	-	-	-	-	-
Triadimefon 95%TC	8,356	53,000	8,401	53,500	9,156	58,550	15% WP	2,680	17,000	2,041	13,000
Tebuconazole 97%TC	11,351	72,000	11,777	75,000	12,909	82,550	43% SC	6,306	40,000	6,752	43,000
Tricyclazole 95%TC	7,568	48,000	7,537	48,000	7,983	51,050	-	-	-	-	-
Propiconazole 95%TC	18,604	118,000	18,530	118,000	22,605	144,550	-	-	-	-	-
Metalaxyl 98%TC	15,372	97,500	15,310	97,500	15,255	97,550	-	-	-	-	-
Prochloraz 97%TC	9,775	62,000	9,736	62,000	9,000	57,550	25% EC	4,288	27,200	4,318	27,500
Difenoconazole 95%TC	25,383	161,000	25,282	161,000	28,078	179,550	10% WDG	6,779	43,000	6,281	40,000
Propamocarb 98%TC	6,937	44,000	6,909	44,000	7,475	47,800	-	-	-	-	-
Cymoxanil 98%TC	8,435	53,500	8,480	54,000	8,687	55,550	-	-	-	-	-

Note: The content of hexamethylbenzene in chlorothalonil 98% TC is 40ppm.

The color of carbendazim 98% TC is white.

Ex-factory price includes VAT.

Source: CCM



## Monthly Shanghai port prices and FOB Shanghai of main fungicides, 10 Sept., 2012

Technical	Shanghai port price						FOB Shanghai			Shanghai port price			
	10 Sept. 2012		10 Aug. 2012		Sept. 2011		10 Sept. 2012	10 Aug. 2012	Formulation	10 Sept. 2012		10 Aug. 2012	
	USD/t	RMB/t	USD/t	RMB/t	USD/t	RMB/t	USD/t	USD/t		USD/t	RMB/t	USD/t	RMB/t
Dimethomorph 95%TC	15,364	97,450	15,303	97,450	17,382	111,150	15,087	15,026	50% WP	9,215	58,450	9,178	58,450
Chlorothalonil 98%TC	4,170	26,450	4,184	26,645	4,379	28,000	4,274	4,180	75% WP	4,170	26,450	3,996	25,450
Mancozeb 90%TC	2,909	18,450	2,944	18,750	4,301	27,500	3,059	2,970	80% WP	2,751	17,450	2,787	17,750
Isoprothiolane 97%TC	5,337	33,850	5,315	33,850	5,317	34,000	5,304	5,283	-	-	-	-	-
Carbendazim 98%TC	4,485	28,450	4,577	29,150	5,004	32,000	4,581	4,563	50% SC	2,909	18,450	3,258	20,750
Thiophanate-methyl 96%TC	4,249	26,950	4,342	27,650	4,809	30,750	4,320	4,333	70% WP	4,170	26,450	3,918	24,950
Phosethyl-Al 97%TC	3,035	19,250	3,023	19,250	3,049	19,500	3,059	3,047	-	-	-	-	-
Triadimefon 95%TC	8,427	53,450	8,472	53,950	9,227	59,000	8,473	8,362	15% WP	2,751	17,450	2,112	13,450
Tebuconazole 97%TC	11,422	72,450	11,848	75,450	12,980	83,000	11,857	11,656	43% SC	6,377	40,450	6,823	43,450
Tricyclazole 95%TC	7,639	48,450	7,608	48,450	8,054	51,500	7,627	7,520	-	-	-	-	-
Propiconazole 95%TC	18,675	118,450	18,600	118,450	22,675	145,000	18,316	18,243	-	-	-	-	-
Metalaxyl 98%TC	15,443	97,950	15,381	97,950	15,325	98,000	15,163	15,103	-	-	-	-	-
Prochloraz 97%TC	9,846	62,450	9,807	62,450	9,070	58,000	9,857	9,665	25% EC	4,359	27,650	4,389	27,950
Difenoconazole 95%TC	25,454	161,450	25,353	161,450	28,149	180,000	25,699	24,831	10% WDG	6,850	43,450	6,352	40,450
Propamocarb 98%TC	7,008	44,450	6,980	44,450	7,545	48,250	6,935	6,907	-	-	-	-	-
Cymoxanil 98%TC	8,506	53,950	8,550	54,450	8,757	56,000	8,627	8,439	-	-	-	-	-

Note: Shanghai port price=ex-factory price + transportation fee from warehouse to Shanghai port.

FOB Shanghai price considers factors of Shanghai port price, port sur-charges, loading charges, traders' profits and export rebates.

And the shipment cost shall be paid by the buyer.

Source: CCM

## Market price of major crops in China, Aug. 2011 and Aug. 2012

Crop	31-August-12		15-August-12		31-August-11	
	USD/t	RMB/t	USD/t	RMB/t	USD/t	RMB/t
Wheat	339	2,154	337	2,142	316	2,022
Corn	371	2,353	370	2,347	357	2,282
Soybean	759	4,815	779	4,947	620	3,968
Peanut	1,576	10,000	1,607	10,200	1,969	12,600
Rice	418	2,653	417	2,650	380	2,429
Rapeseed	821	5,210	803	5,100	727	4,650
Brommccorn	520	3,300	520	3,300	398	2,550

Note: The price table is quoted from the price table of CCM's latest "Crop Protection China News".

Price here means the average market price of these crops in China. Rice here means late indica rice (before milling).

Source: CCM

Correction: The month of this table in the 1208 Issue should be July instead of May.



## Brief news

### Pesticide export volume and value see double-digit decline in Guangdong in H1 2012

According to the General Administration of Customs of China (GAC), pesticide export volume and value saw double-digit decline in Guangdong Province in the first half of 2012. Specifically, the export volume of pesticides in Guangdong slid by 12.6% year on year in H1 2012 to about 38,000 tonnes, while the export value decreased by 10.0% year on year to around USD110 million.

### Zibo Wanchang's net profit up 63.17% year on year in H1 2012

Zibo Wanchang Science & Technology Co., Ltd. (Zibo Wanchang), the largest manufacturer of trimethyl orthoformate (TMOF) in China, achieved double-digit growth in its net profit in H1 2012. In detail, the company's net profit jumped by 63.17% year on year in the first half of this year to about USD7.85 million (RMB49.86 million), according to the company's semi-annual performance report released on 17 Aug., 2012.

### China's output of early rice up 1.6% year on year in 2012

On 26 Aug., 2012, National Bureau of Statistics of China disclosed that the total output of early rice reached 33.29 million tonnes this year, up 1.6% year on year, mainly aided by the enhanced purchasing price. Specifically, the minimum purchasing price of early rice was about

USD0.38/kg (RMB2.40/kg) this year, increasing by 17.6% compared with that in the previous year.

### Pesticide technical's output up 27.3% year on year in China in July 2012

China's output of pesticide technical increased by 27.3% year on year in July 2012 to about 292,795 tonnes. In addition, the top three provinces by pesticide technical output were Shandong, Jiangsu and Hubei with output of 80,222 tonnes, 76,212 tonnes and 26,890 tonnes respectively, according to the National Bureau of Statistics of China.

### Six fungicides' common names of Sinochem Group approved by ISO

Recently, International Organization for Standardization (ISO) approved the common names of Sinochem Group's six fungicides, including coumoxystrobin, enoxastrobin, flufenoxystrobin, fenamistrobins, tricyclopyricarb and pyrisoxazole respectively. In addition, common names of one acaricide and one pyrethroid insecticide also gained approval, namely pyriminostrobin and heptafluthrin.



#### Interaction Column

Please click [HERE](#) to send your comments and topics you are interested in.

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