# CHINA AGROCHEMICALS







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## 2014 CHINA PESTICIDES PRODUCTS REPORTS

Publisher: CCPIA

#### **Other product reports:**

Paraquat

Acetochlor

Carbendazim

Mancozeb

Abamectin

Chlorpyrifos

Chlorothalonil

Acephate

Pymetrozine

Glufosinate

Azoxystrobin

Triazines

Thiamethoxam

Nicosulfuron Transfluthrin

Mesotrione, etc.

Besides, CCPIA issued the China Crop Protection Industry Yearbook 2013.



Glyphosate Product Report (Updated)

Which companies passed the scrutiny?

What's the operation situation of manufacturers under the scrutiny?

How are output changing and price tendency during the scrutiny and what impacts will it bring to export?

What's new on progress of environmental protection technologies?



Contract F&P Research Report

What's the current contract F&P situation in China? How's the companies ranking in the contract F&P industry? What's the companies' experience on cooperating with multinational corporations?

Basic introduction of the investigated companies.



Azoxystrobin Product Report

What production technology do China azoxystrobin manufacturers

R&D of Azoxystrocin (patents and registration) in China How's China azoxystrobin market (capacity, production, sales and price trend) going on?

What's the export situation and why it going this way?



Founded in April, 1982, China Crop Protection Industry Association (CCPIA) was one of the earliest trade associations in China's chemical field. It is a non-profit national institution covering different regions, organizations/departments and industries, and possesses independent legal person status.

In the course of the more than two decades period since its establishment, CCPIA has undergone rapid development, witnessing its members increased from the originally 45 to 564 at present, covering producers/ enterprises , R & D and design institutions, universities and colleges, provincial/municipal pesticide associations related with technicals and formulations, intermediates, auxiliaries, packing materials, packing equipments and applying machines, etc. CCPIA members companies' production value accounts for 90% of the national total pesticide production.

Tel:86-10-84885035 Email:yousheng@ccpia.org.cn Website: http://www.ccpia.com.cn/en

## 2014 International Forum on the Procurement & Services of Crop Protection Products and **International Conference on Crop Protection Science & Technology Call for Papers**

2014 International Forum on the Procurement & Services of Crop Protection Products and Conference on Crop Protection Science & Technology, in parallel with AgroChemEx (ACE) 2014, organized by China Grop Protection Industry Association, will be held in Shanghai in October, 2014. The events will cover marketing, new legislation and new data requirements, as well as innovation and technology improving. Since it began six years ago, the events has attracted thousands people, especially for technical and regulatory staffs and marketing specialists. Original papers, surveys and presentations on all aspects of crop protection are invited. Possible topics for submission to the various sessions include, but are not limited to:

- Markets: status of local agrochemical industry or agriculture, strategies of international marketing, cooperation with Chinese companies
- Policies: registration overseas, view of local pesticides regulation
- R&D: synthesis of technicals, intermediates and pro-pesticides
- Environmental science: new pollution treatment technology, green process, energy reduction and comprehensive use of resources
- Process and application: formulation process, adjuvant and formula, application and efficiency
- Marketing strategy: market exploration, import/export
- Bio-pesticides, impacts that GM Crops bring on pesticide markets
- Others: Agrochemical Residue & Metabolism Chemistry

All papers should make clear titles, abstract, author(s), the affiliation (institution, agency or company) and location (city and state or country). Deadline is July 30th, 2014. Excellent papers will be elected and be presented in the forum, the authors will be awarded.

> All the papers should be sent to yousheng@ccpia.org.cn before July 30th 2014.

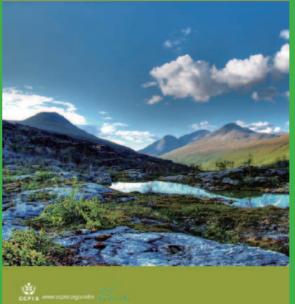
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# CHINA AGROCHEMICALS



Director of Editorial Dept.: Sun Shubao Editor in Chief: Shirley Xia Vice chief-editor: Duan Yousheng Executive Editors: Lv Cong, Luo Yan Sponsor: China Crop Protection Industry Association (CCPIA)

# **CHINA AGROCHEMICALS**



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Address: Room 1315, Anhuili 4th Area, Chaoyang District, Beijing, China Postal Code: 100723 Fax: 86-1084885255 Websites:www.ccpia.org.cn/en www. agrochemex.org/en(exhibition) GENERAL ENQUIRIES E-mail: yousheng@ccpia.org.cn Tel: 86-1084885145, 86-10-84885035

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# Review on China Pesticide Industrial Policies Released in 2013

According to Report of Review on China Pesticide Industry Policy in 2013 that published by CCPIA, there are some policies released in 2013, of which some six ones impacted pesticide industry mostly. Detailed information please refer to the following article.

#### 1. PMIDA Export Rebates Cancelled

In February 2013, the State Administration of Taxation (SAT) issued the 2013 Product Catalog, in which the export rebate rate of PMIDA turned from 13% to 0. As a result, Dr. Duan Yousheng commented that this move not only restricted export but also increased the production cost of IDA-producing glyphosate manufacturers from other countries. The move is expected to improve the competitiveness of China glyphosate enterprises, strengthen pricing power of China glyphosate industry and promote China pesticide industry developing more quickly.

## 2. Glyphosate Environmental Protection Scrutiny Launched

In May 2013, the Ministry of Environmental Protection issued official announcement to launch the glyphosate (PMIDA) industry environmental protection scrutiny. According to the requirements, provincial environmental protection administrations will carry out field verification for the glyphosate manufacturers (PMIDA) manufacturers based on environmental daily supervision. Meanwhile, the Guide of Glyphosate (PMIDA) Industry Environmental Scrutiny was issued and clearly stipulated the recycling and management standards of the glyphosate mother liquor, which regarded "whether the mother liquor was illegally used in the preparation of glyphosate AS" as one of the scrutiny items, and quantization was listed in the requirements. The scrutiny caught the key points of clean production of glyphosate and will spare no efforts to promote China glyphosate industry to develop sustainably.

According to the scrutiny schedule in the announcement, Glyphosate (PMIDA) manufacturers should submit their application of environmental scrutiny and relevant evidentiary materials to local provincial environmental protection departments before July 30, the departments should submit the list of qualified enterprises who pass the first trial to the Ministry of Environmental Protection before September 30, and the Ministry would announce the list of qualified enterprises before the end of December. However, due to various factors, the schedule has been delayed.

The launch of the glyphosate (PMIDA) industry environmental protection scrutiny intended to promote the healthy and sustainable development of the industry. The scrutiny will improve the competition level and the environmental standards of China glyphosate industry, restrict the disorderly and newly increased capacity of the industry and prevent the frequent trading surveys from abroad. This move will no doubt have a deep influence on China, even the global glyphosate market.

#### 3. Pyridine Anti-dumping Case

The Ministry of Commerce (Hereinafter referred to as "Investigatory Apparatus") issued the Announcement No.55 [2012] on September 21, 2012, which decided to conduct anti-dumping investigation on imported pyridine (Hereinafter referred to as "Product under Investigation) originated in Japan and India. According to the investigation result and the 24th provision of Anti-dumping Regulations, the Investigatory Apparatus issued an announcement on preliminary ruling, affirming that the dumping of Product under Investigation existed. After that, the Investigatory Apparatus continued to do some following research, and made final ruling on November 20, 2013, affirming that during the investigation period, dumping of pyridine originated

in Japan and India existed, and made material injury on China pyridine industry. There was a causal relationship between dumping and material injury. After the investigation, according to the relevant provisions of Anti-dumping Regulations, the Customs Tariff Commission of the State Council made a decision that since November 21, 2013, the anti-dumping duties would be imposed to imported pyridine originated in Japan and India and the time limit would be five years.

The victory of pyridine antidumping led to the prosperity of the whole industry chain, and paraquat, as one of the products benefiting from it, had a rising price ever since.

## 4. The Release of Limit Standard of Hazardous Solvents

On October 23, the Ministry of Industry and Information Technology (MIIT) issued the Announcement No.52, in which the limit standard (See the table below) of five hazardous solvents, including xylene, toluene, benzene, methanol and DMF, was clearly stipulated. And this limit standard would come into effect on March 1, 2014.

Solvent	Limitation Standard (in EC formulations)
Benzene	1.0%
Toluene	1.0%
Xylene	10.0%
Methanol	5.0%
DMF	2.0%

R&D on substitution of harmful solvents has already been conducted in pesticide industry for a long time. In recent years, some industrialization achievements came out. E.g.: heavy aromatic solvents replacing light aromatic solvents, resin base vegetable oil, methyl oleate, and fatty acid methyl ester (FAME) replacing chemosynthetic solvents. However, the achievements haven't been expanded in the industry. The newly introduced standards offset the shortage exactly and will play a significant role in improving formulation technology and sustainable development of the society in the future.

## **5. Seven High-Toxic Pesticides Banned or Restricted**

On Dec 9th 2013, the Ministry of Agriculture issued

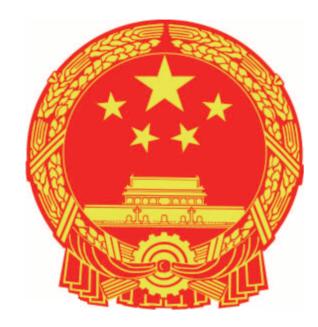
Announcement 2032 which bans or restricts seven active ingredients. The potential environmental and health risks posed by these active ingredients were the primary factors in the decision to ban or restrict their use. The three sulfonylurea herbicides (chlorsulfuron, methsulfuron and ethametsulfuron) have an excessively long residual effect, and often cause injury to the following crops. Two organic arsenic fungicides (asomate and urbacid) which have the potential to cause serious health effects during the production and utilization have also been banned. Chlorpyrifos and triazophos are classified as moderate-toxicity organophosphates, but both substances generally exhibit excessive residue levels in treated crops. As a consequence, the Ministry of Agriculture decided to ban their application on vegetables. According to the announcement, from Dec 31st 2015, all asomate, urbacid, and chlorsulfuron products, single ai formulations of ethsulfuron and ethametsulfuron will be banned on sale and consumption in domestic. From Dec 31st 2016, application of chlorpyrifos and triazophos on vegetables will be banned. From July 1st 2017, all ethsulfuron and ethametsulfuron products will be banned on sale and consumption. After the announcement coming into force, there will be total 38 pesticides banned and total 21 pesticides restricted in China.

## **6. The Coming of the Prohibition of Ten Highly Toxic Pesticides**

According to Announcement 1586, which was jointly issued by the Ministry of Agriculture, the Ministry of Industry and Information Technology, the Ministry of Environmental Protection, the State Administration for Industry and Commerce and State Administration for Quality Supervision and Inspection and Quarantine, from Oct 31st 2013, fenamiphos, fonofos, phosfolan-methyl, calcium phosphide, magnesium phosphide, zinc phosphide, cadusafos, coumaphos, sulfotep, and terbufos products were all banned on sale and consumption in China. In that case, more market space has been remained for high effect and low toxicity pesticides.



INDUSTRIAL POLICIES INDUSTRIAL NEWS



## MEP Issued Comprehensive Catalog for Environmental Protection (2013), Involved some Major Pesticides in Operation in China

Recently, the Comprehensive Catalog for Environmental Protection (2013) ("Catalog" for short) was fully issued to public by the Ministry of Environmental Protection (MEP), which officially integrated the environmental protection requirements into economic development.

According to the MEP, the Catalog was concluded from those Catalogs of past years and the new one drafted in 2013, including four parts, 722 products with high pollution and high environmental risk, 92 high-pollution technologies, 83 environmental friendly technologies and 83 key environmental protection equipments. The Catalog had three main functions: 1. providing an environmental protection foundation for making related national economic policies, 2. providing a market orientation for the enterprises, 3. providing a system foundation for reducing the high-risk pollutants.

There are 49 pesticides involved in the Catalog,

among which, 42 are active ingredients, 2 are formulations, and 5 are produced by high-pollution technologies. Most pesticides in the Catalog were high-toxic, and with tiny production in China, while some are still in normal operation, using and exports, such as imidacloprid, abamectin, bensulfuron, atrazine, simazine, omethoate, quinalphos, 18% bisultap AS, chlorpyrifos produced from trichloroacetyl chloride as raw material, and acetochlor produced from chloride or phosphorus oxychloride as raw materials.

The issue of the Catalog and the adjustment of related economic policies will have a great impact on the production and the sale of corresponding products and it is possible that the products with high pollution and high environmental risk will be faced with the situation of the rising tax, reduction of export tax rebates, and the restriction of trading, supplying and transportation.



China pesticide industry welcomed its peak time in 2013. Operation income and profit both created all-time highs. Driven by the increasing profit, more and more people intended to invest and operate in pesticide industry. Hence limiting production capacity expansion has become one of the primary tasks for the whole industry, and such situation has made environmental protection scrutiny the most concerned event in 2013. Obviously, nowadays, competition of low threshold is no more mainstream of the development. With policies' supervision and motivation, pesticide industry had an outstanding performance among the whole petrochemical industry in China. Follows is an overview of 2013 pesticide industry.

## **Review on 2013 China Pesticide Industry**

#### **Review on Pesticide Market Profile in 2013**

At the beginning of 2013, market of some main products such as glyphosate, paraquat, imidacloprid, acetamiprid, abamectin, and emamectin benzoate etc. kept on flourishing, while supply was very tight. Under the precondition of ensuring agricultural production during the spring planting season, rising in pesticide price became an inevitable trend.

As usual, of all the more than 400 kinds of pesticides, glyphosate and paraquat were the hottest ones in 2013.

Compared with that of 2012, peak season came earlier in 2013. Late in the first quarter, the market was in a strong demand. According to data from WWW.CCPIA.COM.CN, in 2013, price of paraquat TC increased significantly. For instance, VWAP (Value Weighted Average Price) of paraquat in July 2013 increased by 22.7% year-on-year, and up 18.9% than that of Jan 2013. No doubt that price of paraquat mother liquor and formulations has been rising up, too. After suffering from marked ups and downs, market of the main raw material, pyridine, has been going on smoothly, with its price and supply both performed steadily. However, influenced

by delivery dates, there has been rare paraquat in stock, which led to the price keep going up.

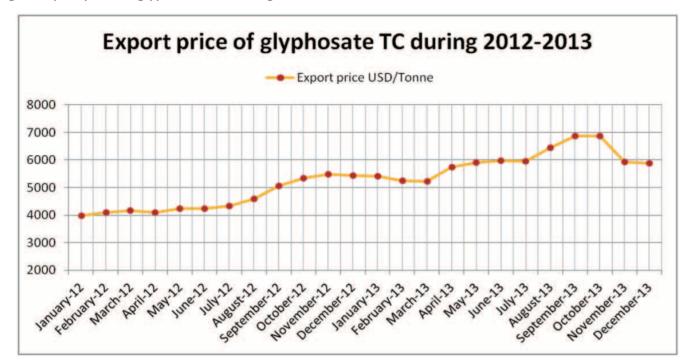
Since paraquat AS is facing the ban of sale, and new formulations are not expanded, paraquat AS cannot be stopped consumption very soon. Under the background, suppliers tend to stock up, which also lead to the upward of paraquat price. It can be seen that the price trend will be last for a while.

When paraquat market came into its off season, some SMEs (small and medium-sized enterprises) shut down, and those in operation did not sell the products but took a wait-and-see attitude, hence paraquat was in short stock. However the leading manufacturers weren't impacted by the low operation rate. According to WWW.CCPIA.COM.CN, up to the end of 2013, Nanjing RedSun, Hubei Sanonda, Shandong Luba, Shandong Kexin, and Shandong Lufeng were all in normal production, while some manufacturers stopped receiving new orders and quoting to clients.

On the other hand, ever since the glyphosate market turned upward in the third quarter of 2012, it continued to heat up till the third quarter of 2013. However, after the price reaching USD 7,500/tonne,

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Fig 1. Export price of glyphosate TC during 2012-2013



glyphosate market began to grow inadequately.

In 2013, the glyphosate scrutiny contributed a lot to the price increasing. Ever since the "Supreme Court & Supreme Procuratorate's Judicial Interpretation" came out in 2013, environmental pollution behaviors have been more easily condemned than before. The "Interpretation" formed proactive deterrence to the unqualified enterprises.

There were three main factors that triggered glyphosate market to be flourishing in 2013: 1. Peak price touched USD 7,500/tonne, and profit rate reached more than 50%; 2. Production increased significantly, and it's estimated that total output may achieve 500,000 tonnes; 3. Glyphosate scrutiny launched by China governemnt guaranteed healthy development of the industry.

In addition to glyphosate and paraquat, most major pesticides performed very well in China during 2013. When it came into off season, some pesticides' prices declined slightly, while market of raw materials and intermediates from upstream began to recover. Hence the slight decline didn't impact industry profit much. With the environmental protection policies coming

out, supply of pesticides will be restricted. What's more, the global planting area, especially that of GM crops, has been always increasing, plus agricultural diseases happened more often than before, capacity of pesticide market will no doubt expand steadily. A short-term of declining cannot cover up the actual upward trend of the agrichemical market.

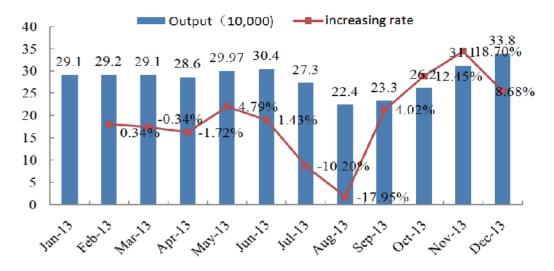
## Output increased steadily, growth less than double-digit for the first time

According to National Bureau of Statistics, during the year of 2013, output of some 335 pesticide enterprises (above designated size) totaled 3,190,000 tonnes, increased slightly by 1.6%. Output of fungicides and herbicides increased over last year, of which fungicide up by 33.8%, output was 203,000 tonnes, accounted for 6.4% of total production, while herbicide up by 8.6%, output was 1,800,000 tonnes, and accounted for 56.4% of total. Meanwhile, output of insecticide declined by 9.0%, down to 613,000 tonnes, accounted for 19.2% of total. Seeing from the table below, industry focus has been moving toward herbicide and fungicide.

Table 1 Summary of Pesticide Output in 2013 (10,000 tonnes)

Number of Companies	Dec J			Jan-Dec		
	Dec 2013	Dec 2012	Change (%)	Jan-Dec 2013	Jan-Dec 2012	Change (%)
Chemical Pesticide(335)	33.8	30.2	11.9	319.0	313.8	1.6
Insecticide(135)	6.0	6.2	-4.0	61.3	67.3	-9.0
Fungicide(69)	1.7	1.5	11.8	20.3	15.2	33.8
Herbicide(109)	18.6	16.3	14.4	180.0	165.7	8.6

Fig 2 Pesticide Output during 2013



## Export and import trading performed actively, global market in great demand

1. Import Value Enjoyed Substantial Growth, Average Price Increased Significantly According to the Customs, during the year of 2013, total value of pesticide export and import reached 4,437 million dollars, increased by 28.5% year-on-year, much higher than that of 2012.

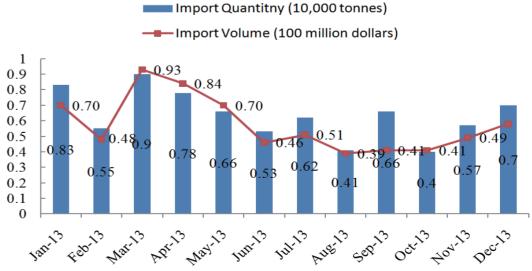
Table 2. Summary of Pesticide Import in 2013 (10,000 tonnes, million dollars)

Category	Dec				Jan-Dec			
Category	Quantity	Change(±%)	Value	Change(±%)	Quantity	Change(±%)	Value	Change(±%)
Pesticide	0.7	-10.7	58.49	+7.4	7.6	+10.6	691.67	+16.8
Insecticide	0.1	-40.0	5.98	-48.7	1.0	+17.9	150.25	+15.3
Fungicide	0.2	+21.0	23.78	+45.4	2.7	+12.1	293.56	+11.5
Herbicide	0.3	-27.2	22.56	+3.7	2.4	-4.1	166.51	+19.2

According to the Customs, during the year of 2013, China imported 76,000 tonnes of pesticide in total, increased by 10.6%. Imported value reached 690 million dollars, increased by 16.8%. Insecticide's imported quantity was 10,000 tonnes, increased by 17.9% year-on-year, and imported value of insecticide achieved 150 million dollars, increased by 15.3% year-on-year. Fungicide's imported quantity

was 27,000 tonnes, increased by 12.1% year-on-year, and imported value of the category was 290 million dollars, increased by 11.5% year-on-year. Herbicide's imported quantity was 24,000 tonnes, decreased by 4.1% year-on-year, and imported value of the category was 170 million dollars, increased by 19.2% year-on-year. Whether seeing from quantity or value, fungicide was surely the largest category.

Fig 3 Pesticide Import Quantity and Value during 2013



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2. Export Value Enjoyed Substantial Growth, Export Quantity Achieved 1,000,000 tonnes for the First Time

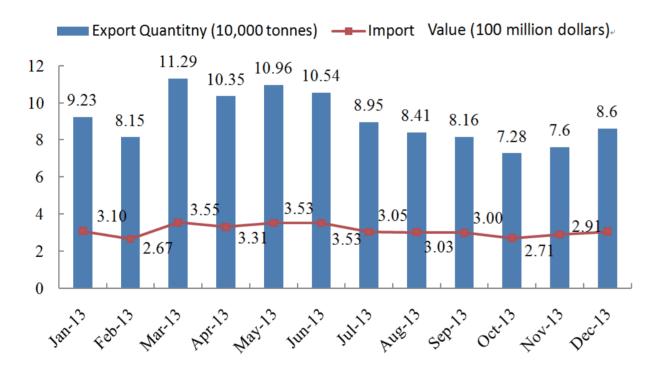
Table 3 Summary of Pesticide Export in 2013 (10,000 tonnes, million dollars)

Catagory	Dec	С				Jan-Dec			
Category	Quantity	Change(±%)	Value	Change(±%)	Quantity	Change(±%)	Value	Change(±%)	
Pesticide	8.6	+13.5	305.81	+19.3	109.5	+22.1	3,745.50	+31.0	
Of which Insecticide	1.6	-1.9	66.96	+6.0	22.5	+16.9	908.14	+17.7	
Fungicide	0.6	+8.6	31.92	+11.0	7.2	+1.7	374.20	+11.1	
Herbicide	6.0	+17.2	198.54	+25.3	75.6	+26.3	2,374.48	+42.0	

During the year of 2013, total pesticide export quantity and value both achieved significant increase than that of 2012. China exported 1,095,000 tonnes of pesticides in total, which achieved a historic high . Export value was 3,750 million dollars, increased by 31.0% year-on-year. Export quantity of herbicide was 756,000 tonnes, up by 26.3% than last year, and value

was 2,370 million dollars, up by 42.0% year-on-year. Export quantity of insecticide was 225,000 tonnes, and value 910 million dollars, increasing rate attained 16.9% and 17.7% respectively. Fungicide export quantity increased slightly to 72,000 tonnes, while export value increased by 11.1% year-on-year to 370 million dollars.

Fig 4 Pesticide Export Quantity and Value during 2013



Seeing from the categories, herbicide remains its leading position. Export quantity of herbicide even accounted for some 70% of total. Glyphosate surely contributes a lot to such condition. While fungicide is still the weakness, its export quantity only accounted for 6.5% of total, and value only 10%, far less than its proportion of global market (26%). Base on the said condition, and combined fungicide import data and annual output, it can tell that China fungicide industry still has large potential for growth.

## **Industry Profit Attained Rapid Increase**

During the year of 2013, main operation revenue of 834 pesticide enterprises (above designated size) totaled 46,108 million dollars, increased by 19.1% than that of 2012. Total profit achieved 3,759 million dollars, attained a significant growth of 30.8% year-on-year and made a new record high. The profit rate is 8.2%, also higher than that of 2012.

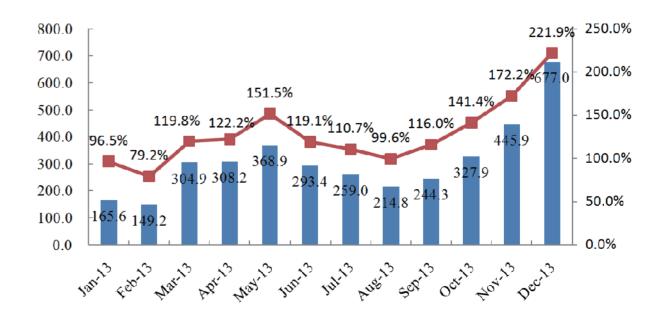
Table 4 Summary of Pesticide Economic Index in 2013

Category of Industry	nt Industry				ollare)	(million dollars)		Total Profit (million dollars)		Total Taxes and Profits (million dollars)	
,	Enterprises		Change (%)	Year of 2013	Change (%)		Change (%)	Year of 2013	Change (%)		
Chemical Pesticide	828	31,383.6	+16.9	46,108.2	+19.1	3,759.0	+30.8	5,057.4	+32.0		
Chemical Pesticide TC	699	28,888.5	+17.3	41,400.0	+18.7	3,401.6	+32.8	4,447.5	+31.0		
Biochemical &Microbial Pesticide	129	2,495.1	+12.6	4,708.2	+22.3	357.4	+13.7	609.8	+40.0		

Fig 5 Main Operation Revenue of China Pesticide Industry during 2013



Fig 6 Profit and Profit rate of China Pesticide Industry during 2013



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Seeing from the follow table, it can tell that as the profit increasing rapidly, losses scale of pesticide industry was declining. During the year of 2013,

number of loss-making enterprises fell down by 5.0%. Amount of losses was 80.5 million dollars, declined by 14.8% than that of 2012.

Table 5 Summary of Pesticide Industry Losses in 2013

Category of Industry	Number of	Number of Enterprise		naking	Account (million	of Losses dollars)	5	Scale of L	osses (%)
Category or Industry	Enterprises		Year of 2012	Change (%)	Year of 2013	Year of 2012	Change (%)		Year of 2012
Chemical Pesticide	834	76	80	-5.0	80.5	94.4	-14.8	9.1	9.6
Chemical Pesticide TC	702	69	67	+3.0	76.4	86.9	-12.1	9.8	9.5
Biochemical &Microbial Pesticide	132	7	13	-46.2	4.3	7.7	-45.0	5.3	9.8

#### **Investment of Industry Race Up**

Investment of pesticide industry has been inclining to R&D of new products. More and more investment has been put into facilities for environmental protection and automation equipments. According to statistics,

during the year of 2013, investment to pesticide industry increased by 15.6% year-on-year, much higher than the growth rate of 2012. According to the classification, growth rate of chemical pesticide achieved 27.3%, accounted for 65.5% of total, while that of bio-pesticide declined slightly by 1.5%.

Table 6 Summary of Fixed Investment in 2013

Category of Industry	Planned Investment (million dollars)	Change (%)	Actual Investment (million dollars)	Change (%)	Number of Construction Projects	Change (%)
Chemical Pesticide	13,388.4	+15.9	6,609.6	+15.6	513	-0.4
Chemical Pesticide	7,561.4	+13.0	4,329.8	+27.3	348	+6.4
Biochemical &Microbial Pesticide	5,827.0	+19.9	2,279.9	-1.5	165	-12.2

## Merging and Reorganization Keep on Orderly Proceeding

Under background of strict environmental protection policies, there were few newly started pesticide enterprises, while more concerns were put on integration of the industry. According to the MIIT, during the year of 2013, there were 12 merges and reorganizations happened. Followed is the list of merged and reorganized enterprises.

- → Hebei Sairuide Chemical Co., Ltd acquired Tianjin Yingxin Pesticide Co., Ltd;
- → Anhui Huaxing Chemical Industry Co., Ltd acquired Xiyangyang Agir-Stuff Co., Ltd;
- → Anhui Jiatiansen Pesticide Co., Ltd acquired Changzhou Plant Medicine Co., Ltd;
- → United Bio-Shanghai and Shanghai Pharmaceutical (xiayi) Co., Ltd acquired Shanghai Aikesi Bio-

pharmaceutical Co., Ltd

- → BOERSEN Group acquired Hohhot Lubang Pesticide Co., Ltd
- → Hunan Dongyong Chemical Co., Ltd acquired Yiyang Runye Chemical Co., Ltd
- → Jiangsu Kinghon Biotechnology Co., Ltd acquired Sichuan Huafeng Pharmaceutical Co., Ltd
- → Chongqing Shurong Chemical Co., Ltd acquired Sichuan Fuda Chemical Co., Ltd
- → Guangxi Brothers Pesticide Co., Ltd acquired Guangxi Guigang Hengtai Chemical Co., Ltd
- → Shaanxi Hentian Chem-Tech Co., Ltd acquired Shanxi Baoyuan Chemical Co., Ltd
- → Shaanxi Xiannong Biology Science Co., Ltd

acquired Shaanxi Jialunduo Crop Science Co., Ltd → Shandong Aodeli Huagong Co., Ltd acquired Bainongsida (Shandong) Agrochemical Co., Ltd

# Industrial Structure Adjustment, Technology Innovation and Energy Saving & Emission Reduction Become the Key Support

Benefit from the environmental protection policies, large enterprises' market share increased and some illegal enterprises were eliminated or limited. Healthy competitions have been popularized, which led the enterprises to improve their innovation and as a result, more and more new products and new technologies flooded into the market.

Under the rapid development of the industry, more challenges emerged. Enterprises need to adjust their strategic to achieve sustainable development. R&D level should be improved, new production lines should be built up, and international marketing concepts should be introduced. With all the efforts, the industry will be led to a new stage of development in the near future.

## **Environmental Protection Scrutiny: HOT TOPIC of 2013**

As was stated above, environmental protection has been concerned more and more in recent years. In June 2013, the Supreme People's Procuratorate and the Supreme Court jointly announced the new judicial interpretation, which performed much stricter punitive measures to environmental pollution behaviors and indicated the firm determination of fighting environmental crimes. What's more, with CCPIA's positively promotion and assistance, the first environmental protection scrutiny was officially launched. Glyphosate, as the largest pesticide in the industry, became the leading product to be tested. According to the scrutiny requirement, it's planned to achieve regulated production and sale in three years. The scrutiny and integration trend are two key opportunities for the pesticide enterprises.





#### BRIEF INTRODUCTION

Qingdao Hansen Biologic Science Co., Ltd is a major High-Tech enterprise, Who is located in beautiful rich coastal city-Qingdao. The company founded in 2002, belong to the national development and reform nominated pesticides production enterprises, state-level High-Tech enterprise. We has passed the ISO9001, ISO14001, GB/T28001 certification system. Qingdao Hansen has the key technology on Fomesafen, Fluoroglycofen-ethyl, Lactofen, Trifluralin, Propargite and Thifluzamide production, are in the leading domestic level. On the basis of principle equality and mutual benefit, we would like to communicate and cooperate with people from entire business circle, and we are also keen to cooperate with domestic and abroad customers to develop new products and markets.





## MAIN PRODUCTS

# HERBICIDE Fomesafen, Acifluorfen, Lactofen, Fluoroglycofen, Trifluralin, Butralin, Quizalofop-p-ethyl

#### INSECTICIDE

Methidathion

FUNGICIDE Thifluzamide

ACARICIDE

Propargite

#### INTERMEDIATE

- 4-chlorobenzotrifluoride.
- 3,4-dichlorobenzotrifluoride,
- 4-chloro-3,5-dinitrobenzotrifluoride,
- 2-(4-tert-butylphenoxy)cyclohexanol





Jiangsu Aolunda High-Tech Industry Co.,Ltd. Lianyungang Neutech Chemical Co.,Ltd.

## Thiocarbamates series ' herbicides manufacturing base

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Prosulfocarb EPTC Cycloate
Prodiamine Cyhalofop-butyl
Sulfentrazone Diclosulam



Add:Zhoutle Town, Ylking city, Jiangsu Province.P.R. China.
TEL:+86-510-87551816,87551757,87551153,87551163 FAX:+86-510-87551187



## Approved List of Glyphosate Industry Environmental Protection Scrutiny to be Announced in March

The Announcement on Environmental Protection Scrutiny of Glyphosate Industry released by Chinese Ministry of Environmental Protection in May, 2013 marked the start of the environmental protection inspection in glyphosate industry. Though the examining process is slowed down for various reasons, the approved list is expected to be officially announced in Mar, 2014 and the following round of application is expected to start at the same time, according to an insider.

The delayed approved list is regarded as the barometer for glyphosate industry. Its passing rate will reflect how strict the scrutiny is and the industry's later trend.

A relevant person from CCPIA says, "Given the policy trend, the scrutiny might be stricter. A low passing rate, which means a harsh scrutiny, might effectively constrain the capacity of glyphosate industry and improve its concentration ratio, while a high passing rate might lead to a rebounding of its capacity and a price drop."

A stock analyst says, the passing rate would influence the future application. The number of the applying enterprises this time was lower than expected, since many enterprises are waiting to figure the scrutiny criteria. If most of them get passed, more enterprises will apply for the following inspection."

The supporting punishment measures are expected to be released this year. According to a relevant person from CCPIA the exportation-related measures will constrain the sales of enterprises strictly, and those failing to reach environmental protection standard will suffer strong blows.

# **2013 Lianhe Technology's sales up 14%**

Recently, the 2013 performance results announced by Lianhe Technology reveals its business income of 552.25 million dollars, 13.99% up year on year, and the net profit attributable to the shareholders of listed company of 73.15 million dollars, 22.02% up year on year.

The business income was 13.99% up year on year in the report period, mainly due to the expansion of market. And among it, income from the industrial business was 19.32% up year on year.

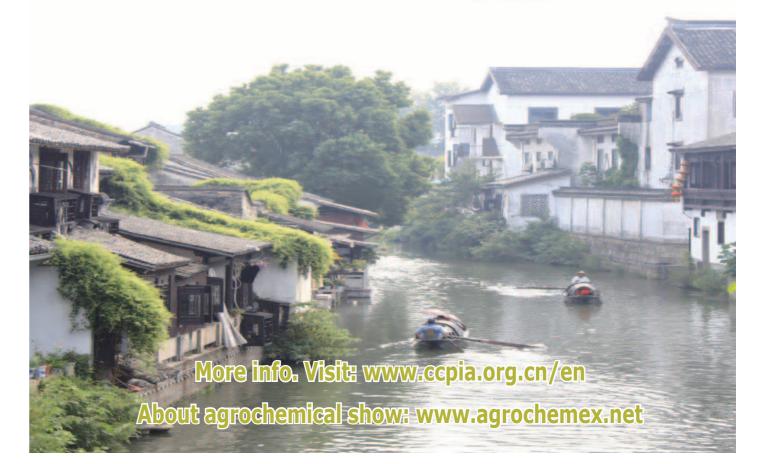
The report saw the business profit 20.77% up year on year, the total profit 19.77%, and the net profit attributable to listed company 2.02%, mainly on account of the growth of industrial business with high gross margin in the period.

Business Data as follows (USD/RMB=1:6.1)

	Total Business Income (million dollars)	Business Profit (million dollars)	
Reporting Period	552.25	86.32	86.55
Same Period Last Year	484.48	72.66	72.26
Change %	13.99	20.77	19.77

Data source: 2013 performance results of Lianhe Technology









Company profile

PLEASE CONTACT AGRODRAGON FOR

We are the first one to get the ICAMA of Azoxystrobin in China, The registration NO is PD20101528. And we will have the ICAMA of Thiamethoxam this year. I think we will be your best supplier in China, We are looking forward to cooperate with you.

Thiamethoxam	98%TC
Thiamethoxam	25%WDG
Azoxystrobin	96.55min
Cyproconazole	95.0%min
Tebuconazole	96.0%min
Flutriafol	95.0%min
Metazachlor	98.0%min
Azoxystrobin	25% SC 50% WDG 70% WDG
Azoxystrobin+Cyproconazole	20%+8% SC
Azoxystrobin+Difenconazole	20%+12.5% SC
Azoxystrobin+Tebuconazole	20%+20% SC
Azoxystrobin+Flutriafol	25%+25% SC
Tebuconazole	25% 80%WP 43%SC
Flutriafol	25%SC 12.5 % SC 50%WP 80%WDG
Folpet	50%, 80% WP, WDG
Thiodicarb	30% SC 37.5%SC 80%WDG 75% WP
Carbendazim	50%, 80% WDG 50% SC 75% WP
Metalaxyl 8%+Mancozeb 64%	72% WDG WP
Pirimicarb	50% WP, WDG
Fricyclazole	75% WDG
Captan	50%, 80% WDG
Imidaeloprid	70%. 75% WDG, WP
Paclobutrazol	150g/L, 250g/L SC
Niclosamide	70% WDG, WP
Emamectin benzoate	5% WDG

## **2013 Huifeng's sale up 29%**

The report period saw the business income of 352.10 million dollars, being 28.83% up year on year, the business profit of 34.71 million dollars, 38.71% up, and the total profit 35.00 million dollars, 32.83% up.

- 1. The growth of business income was mainly attributed to the production of its equity investment projects and the expansion of market.
- 2. The growth of business profit, total profit and net profit was mainly attributed to the growth of sales and the larger proportion of hi-tech products. Business Data as follows (USD/RMB=1:6.1)

Items	Current Report Period (million dollars)		Change %
Total Business Income	352.10	273.30	28.83%
Business Profit	34.71	25.02	38.71%
Total Profit	35.00	26.35	32.83%

Data source: 2013 performance results of Huifeng

## **2013 Lier's sale up 13%**

The 2013 performance results announce by Lier Chemical recently reveals its business income of 236.45 million dollars, business profit of 23.91 million dollars.

The year 2013 saw its technology updating of major products, the growth of its supply capability, the promotion of its glyphosate project and the growth of its sales.

In the report period, the year on year growth of its total business income, business profit, and net profit attributable to shareholders of listed company was 12.85%, 4.48%, and 20.29%, respectively.

Business Data as follows (USD/RMB=1:6.1)

Items	Current Report Period (million dollars)	Last Year	Change (%)
Total Business Income	236.45	209.52	12.85
<b>Business Profit</b>	23.91	22.89	4.48
Total Profit	22.50	22.57	-0.32

#### Notice:

Data above was from consolidated statements. Data source: 2013 performance results of Lier Chemical.

## **Solvay Opens Flagship Innovation Centre in Singapore**

Laboratory is the largest Solvay Innovation Centre for Novecare in Asia Pacific



Solvay announced recently the opening of a new Innovation Centre in Singapore. Located in Biopolis and occupying a total area of 1100sqm, the laboratory is the key innovation centre in Asia Pacific for Solvay Novecare. It will be a regional hub in the development of sustainable solutions for the Agrochemical business.

"Singapore has undergone an important transformation in recent years and is now established as a key knowledge and innovation hub in the Asia Pacific region", said Pierre-Franck Valentin, Vice President & General Manager of Solvay Novecare Asia Pacific. "By basing one of our global Innovation Centres in Singapore, we want to take advantage of the country's research capabilities and ready infrastructure. Singapore's strong intellectual property protection also makes it an ideal location to set up our new innovation laboratory that will address the challenges that the specialty chemicals industry faces in Asia.

With the inauguration of the new state-of-theart Research and Innovation Centre in Singapore, Solvay will be developing some of its core competencies in this new premises. Valued at an initial investment of about S\$3 million, the laboratory will be the core innovation ground in Asia Pacific for Solvay Novecare, a global leader in the specialty surfactants industry. Besides leading the global innovation projects in the three domains mentioned above, the researchers in Singapore will also provide technical support to Solvay's regional customers as well as plants in the Zone.

Following the announcement made in April 2013 of Solvay's construction of a large-scale alkoxylation facility in Singapore that will be ready by 2015, the laboratory is Solvay's latest investment project in Singapore and has received strong support from the Singapore Economic Development Board (EDB). Speaking of the new laboratory, Eugene Leong, EDB's Director of Energy & Chemicals said, "Solvay's new Innovation Centre strengthens Singapore's strategy to grow the specialty chemicals industry. The new lab presents opportunities for Solvay to be closer to their customers and partners in Singapore, especially those in the consumer and oilfield businesses. Solvay's presence will also create exciting job opportunities for Singaporeans and develop our pool of talent in core innovation and leading technical services."

In line with the company's development plans, Solvay plans to boost the laboratory's capabilities in the next 5 years with a further investment of about S\$8 million.

http://www.generic-chem.com



# Review on CCPIA Services for the Chinese Government in 2013

According to the issued documents of the General Office of the State Council of China, the main responsibilities of industry associations are: "Fully play the roles as bridges and links. The governments at all levels and their departments should further transform their functions and authorize the appropriate functions and rights to industry associations. Before issuing any major policy or measure concerning industry development, the governments and departments should consult relevant industry associations for advices and suggestions. Industry associations should strive to adapt to new circumstances, improve ways of working, deepen industry surveys and researches, actively submit industry and member appeals to the governments and departments, give advices and suggestions on industry development legislation, actively participate in the studies and preparation of relevant laws and regulations, macro-control and industry policies, participate in the modification of industry standards, industry development planning and industry access conditions, improve industry management and facilitate industry development."

The Ministry of Industry and Information Technology (MIIT) has also made the following regulations:

"Associations, as the bridges and links between enterprises and the government, should fully leverage their advantages, actively undertake relevant work assigned by the administrative departments of industry, communication and information technology, assist the government in strengthening and improving industry management, strengthen industry survey and research, report to the government the demands of enterprises and the industry situation, organize to formulate 'industry standards and rules' and supervise the implementation, coordinate and protect enterprises' interests, and urge enterprises to perform social responsibilities."

## The specific requirements include:

1. Preliminary research and mid-stage assessment of industry planning preparation or modification;

- 2. Subject research of industry policy formulation or modification and policy effect evaluation;
- 3. Relevant work on industry access management;
- 4. Drafting and promoting the implementation of industry standards;
- 5. Organization and promotion of industry informatization;
- 6. Industry (enterprise) statistical survey, data analysis and processing, and comprehensive information submission;
- 7. Summarization, verification, evaluation and application promotion of industry (enterprise) scientific innovations and management innovation achievements;
- 8. Relevant basic work on industry safety production, energy conservation and emission reduction and quality management;
- 9. Relevant work on technical and management communication, talent training and quality certifications;
- 10. Other entrusted matters."

In 2013, China Crop Protection Industry Association (CCPIA) mainly assisted the government in the following work according to the requirements specified by the government:

- 1. At the request of the MIIT, make statistics of industry economic operation data, collect and analyze the data, and report to the MIIT as decision-making basis for industry economic operation;
- 2. At the request of the MIIT, participate in the examination of application materials for the issuance (once a month) and renewal of the pesticide production certificates;

- 3. Organize experts to discuss and draft the implementation plan for the industry standard Limit Standards of Harmful Solvents in Pesticide EC Formulations (HG/T 4576-2013);
- 4. Organize the training for quality inspectors of pesticides and issue practicing certificates;
- 5. Make suggestions for the modification of the Exposure Draft of Comprehensive Catalog for Environmental Protection (2012 Edition) issued by the Ministry of Environmental Protection;
- 6. Make suggestions for the modification of the Directory of Major Hazardous Chemicals in Environmental Management (First Batch) (Exposure Draft) issued by the Ministry of Environmental Protection;
- 7. Assist the Ministry of Environmental Protection to promote and participate in the environmental protection scrutiny of glyphosate (PMIDA);
- 8. Give suggestions and advices on the schemes issued by the Ministry of Agriculture such as "differentiated management on pesticide

- enterprises" and "minor crop registration management";
- 9. At the request of the Customs, check the unit consumption standard of the processing trade of "bifenthrin" and "clomazone";
- 10. Put forward suggestions on the adjustment of tariff rules on some pesticides and intermediates;
- 11. Make suggestions for the modification of the Directory of Hazardous Chemicals (Exposure Draft) issued by the State Administration of Work Safety;
- 12. Report the pesticide output adjustment of China in 2012 to the National Development and Reform Commission, the Ministry of Industry and Information Technology, the Ministry of Agriculture and the National Bureau of Statistics, to provide reference for governmental departments to make management development policies for the pesticide industry;
- 13. Make appeals on production and use management, safety and environmental protection and relevant economic policies to the government departments on behalf of enterprises.



The Largest Glyphosate Supplier In China zheJiang xinan chemical industrial group co.,Ltd. 浙江新安化工集团股份有限公司

- Glyphosate
- Quinclorac
- Chlorpyrifos
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# Review on CCPIA Paraquat Product Stewardship Working Group during Past Three Years

From 2013 Development Report of China Paraquat Industry

Under the guidance of the Ministry of Agriculture (MOA), the Ministry of Industry and Information Technology (MIIT) and the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China (AQSIQ), China Crop Protection Industry Association (CCPIA) established "Paraguat Product Stewardship Working Group" (hereinafter referred to as the "Working Group") in 2011. Syngenta, RedSun, Shandong Luba Chemical, CAC Group and several other paraguat enterprises joined the Group. The Working Group has increased success rate of paraguat poisoning treatment by setting emergency calls and training grassroots doctors and has reduced the incidence of paraguat poisoning by educating farmers on safe use of paraguat products. The Working Group has established the first corporate social responsibility system in the pesticide industry of China, setting a good example in the industry.

During 2011 to 2013, the Working Group mainly carried out the following work:

I. Setting two "poisoning emergency consultation hotlines", to provide poisoning treatment and consultation service:

Since the paraquat poisoning emergency calls were opened in August 2011, a total of 5,900 consultation calls on paraquat have been made by the end of June 2013, among which 2,667 are patient-related consultations.

II. Training on paraquat poisoning emergency treatments

From 2011 to the first half of 2013, the Working Group carried out 87 "paraquat poisoning emergency treatment trainings". Over 15,000 people participated in the training, and 10,972 medical activated carbon portions, 10,077 urine detection kits for paraquat poisoning and 9,827 pamphlets of Guiding Principles on Paraquat Poisoning Diagnosis, Emergency Treatment and Hospital Treatment were issued. To increase the popularity of trainees, the Working Group mailed 22,846 medical activated carbon portions and 11,423 pamphlets of Guiding Principles on Paraquat Poisoning Diagnosis, Emergency Treatment to 11,432

city, county and township hospitals in 25 provinces (municipalities and autonomous regions) nationwide.

At the hospitals for statistics where the 6 consultant doctors work in the 6 provinces with larger agricultural usage amount of paraquat, all of the patients were transferred from other hospitals due to improper treatment at grassroots hospitals or other reasons, and most of them missed the best time for paraquat treatment, which makes the treatment very difficult. The 6 hospitals accepted and treated 2,499 such patents from 2010 to the first half of 2013. Their annual average cure rate and improvement rate can still achieve 55.5%.

III. Training on the safe and scientific use of paraquat

In 2012 and 2013, the Working Group organized about 940 trainings on the safe and scientific use of paraquat with the member enterprises' efforts. A total of 37,600 farmers and dealers participated in the training, and 35,000 sets of protection suits, 35,000 sets of face shields, 27,000 wall pictures on safe use of paraquat, 20,000 medical activated carbon portions, 500,000 pamphlets of Safe and Scientific Use Manual of Pesticides, and 300,000 pamphlets of Guiding Principles on Paraquat Poisoning Diagnosis, Emergency Treatment were issued.

IV. Research on the substitute for paraquat formulations

Shandong Luba Chemical Co., Ltd. has obtained the temporary registration for 50% paraquat soluble granules, and Nanjing RedSun Biochemical Co., Ltd. has obtained the formal registration for 20% paraguat GW.

Through the paraquat product stewardship of the Working Group, the paraquat poisoning and treatment situation has been improved. By strengthening such work as the training for paraquat poisoning emergency doctors and the training on safe use of paraquat for farmers, the number of paraquat suicides is decreasing and paraquat poisoning and treatment problem is gradually eased. The paraquat product stewardship led by CCPIA has been affirmed and supported by the government departments.



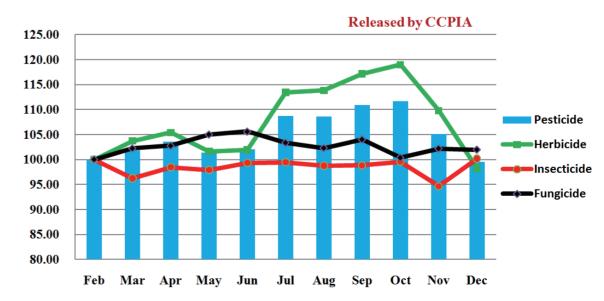
Recently, after over a year of statistical analysis of data, China Crop Protection Industry Association (CCPIA) officially released the China Agrochemical Price Index (CAPI) of 2013 (see the following chart). The CAPI quantizes the changes in the pesticide industry, visually shows the industry development trend and can directly affect relevant fields' judgment on the industry development; through the analysis of the changes of the CAPI, one can treat the development of the pesticide industry more rationally, thus it can reduce blindness in investment and production expansion. The release of the CAPI is considered the first step to establish an early warning system for the economic development of the China pesticide industry.

From the CAPI changes, it can tell the microeconomic development situation of the industry:

## I. The pesticide industry showed a wavy economic development in 2013

In 2013, the annual average CAPI achieved 104.87. It rose gradually from January to October and reached its highest 111.72 in October, an increase of nearly 12% over that in February; however, after November, affected by the reduction in sales caused by the production suspension for maintenance by most pesticide enterprises or the reduction in operating rate, the unclear pre-judgment on

## Tendency of CAPI during 2013



-18-

the price change of staple pesticide products, the unclear environmental protection scrutiny effect of glyphosate and the increased production capacity of some enterprises, the CAPI decreased by 5.32% in December compared to that in last December, a decrease of nearly 11% compared to that in October 2013.

In 2013, the CAPI change of herbicides was consistent with that of the overall CAPI. The annual average CAPI of herbicides was 107.65 and reached its highest 118.97 in October, an increase of 19% over that in February. The CAPI change of herbicides directly affects overall CAPI change.

In 2013, the CAPI of insecticides fluctuated slightly, with an annual average of 98.50. The overall price level of the year was lower than that at the beginning of the year. The year-on-year fluctuation ratio during the normal production seasons from March to October was less than 3%; November was a slack season for insecticide production and use, and the CAPI decreased to 94.68 accordingly. However, affected by the current warm winter, 2014 may be a year of peak insecticide usage, and enterprise may stock up. Therefore, the CAPI of insecticides increased significantly by 5.83% in December compared to that in last December, and achieved 100.20 for the first time of the year. It also surpassed the CAPI in February, reversing the overall declining trend of the whole month.

In 2013, the CAPI of fungicides was basically stable, with an annual average of 102.72, slightly higher

than that at the beginning of the year. From February to December 2013, the CAPI fluctuated between 100 and 105, showing slight changes throughout the year.

#### II. Prediction on the CAPI of 2014

With the greater efforts on the supervision to the pesticide industry, especially stricter requirements on environmental protection, the CAPI will be further affected; the CAPI is also affected by the supply of upstream raw materials and the downstream demand. Considering comprehensively the factors, the CAPI will probably continue to show a wavy development trend in 2014.

The price change of herbicides is expected to continue to affect the change of the CAPI of the whole pesticide industry, and glyphosate, paraquat, atrazine and acetochlor will still be the major products affecting the price index of herbicides. In particular, as the results of environmental protection scrutiny of glyphosate are becoming clearer, it will directly affect the price index of herbicides.

In 2014, the number of manufacturers of generic insecticides and fungicides will increase, and their scales will be expanded. Considering that many factors such as the changeable global climate will directly affect the price indexes of insecticides and fungicides of the new year, it makes the CAPI change rule difficult to predict.

#### Technicals Formulations Metchem Enterprise Group, founded in 2001, is a diversified 96% group in the field of agrochemicals. MEG has built a 96% 25%50,18%50 worldwide sales network, covering more than 50 countries Herbicides and regions globally with over 150 partners. The 95% 33%EC 95% SNEC.4.9%EC.10.8%EC.12.9%EC.19%E duizalofop p ethy accelerated supply chain has been leading MEG to 95% 75%WDG.18%W be uniquely competitive in developing pesticides including Insecticides, Herbicides, Fungicides and 18%GR 2016ME 30%EW 30%WP 48%EC 97% SILECUSIANE 101/WP.201/GL.251/WP.701/WD Combinations. Sales revenue of MEG in 2011 reached USD 80 Million, and total export amount exceeded USD 60 Million. In the next five years, based on the international 85% SESUITE 98% \$%GR,10%GR,40%SC marketing advantage, MEG strives to develop itself to be an international market oriented manufacturing 97% 12.5%EW.12.5%WP.12.5%ME.60%WP.43%SC.2 95% 10%ME,10%SC,40%SC,25%EC,10%WD0 enterprise by implementing the strategy of 95% 25%SC.56%WDG "independent innovation, talent-oriented and sugamycin brand construction". Add: 4-101, No.299 Bisheng Road, Zhangjiang Hi-Tech Park Shanghai. 201204, China Tel: 0086-21-51082199 Fax: 0086-21-50276058

## **Three Special Committees Established by CCPIA**

## **CCPIA Pesticide Adjuvant Professional Committee**

In 2013, China Crop Protection Industry Association (CCPIA) held the inaugural meeting of the Pesticide Adjuvants Professional Committee in Nanjing, which was initiated by 22 adjuvant enterprises including Nanjing Teva-Chem. Co., Ltd., Rhodia, Beijing Grand AgroChem., Ltd., and Jiangsu Hualun Chemical Industry Co., Ltd. The main task of the Committee is to exchange and promote advanced formulation technology and achievements in scientific research, formulate relevant standards and regulations on pesticide adjuvants and improve pesticide formulation technological level.

## **CCPIA Pesticide Packaging Professional Committee**

In 2013, the inaugural meeting of the Pesticide Packaging Professional Committee was held in Hangzhou, which was initiated by 12 pesticide packaging material and equipment manufacturers including JRB Packaging Co., Ltd., Zhejiang Shenxin Packaging Co., Ltd. and Jiangsu Tom Packaging Machinery. The main task of the Committee is to regulate pesticide packaging, formulate pesticide

packaging standard and improve pesticide packaging level. At the same time, the technical seminar on pesticide packaging management and package use was held, at which the pesticide packaging management situation and use technology were presented, and the current domestic use condition and problems of pesticide formulation packages were mainly discussed.

## **CCPIA Committee for Using Pesticides Safely and Scientifically**

China Crop Protection Industry Association (CCPIA) will establish the Committee for Using Pesticides Safely and Scientifically in 2014. The Committee will, with the underlying goals of raising the enterprises' responsible care awareness and increasing the popularity of safe and scientific use of pesticides, advocate enterprise responsible care and provide new products and pesticide use technology to farmers according to relevant laws and regulations, jointly hold public interest crop protection trainings for dealers, farmers' cooperatives, family farm owners and end users with local governments and relevant agricultural departments through meetings and conferences, and advocate and carry out the recycling of waste pesticide packages.





## 2014 Ranking of Top 100 Pesticide Companies and Top 30 Formulators of China will be Launched

Since 2011, in term of the annual sales of Chinese pesticide enterprises, China Crop Protection Industry Association (CCPIA) has issued the ranking lists of Top 100 pesticide companies and top 30 formulators for three consecutive years. The fourth ranking list is expected to be brought in May 2014. The ranking work has officially been started.

From the list of last year, it can tell that the total sales of the 100 companies is up to RMB 79.1 billion, a year-on-year increase of 27.9%; while the total sales of the 30 companies with most formulation sales is 1,812 million dollars, an increase of 30.0% compared to that in 2011.

In 2014, the China pesticide industry will continue to grow and keep a sound and stable development. Who will come out at the top of the list this year? Let's wait and see.

# The Fourth Seminar on the Environmentally-friendly Formulation and Packaging (F&P) Technology and Production Equipments to Be Held Soon

From April 14 to 15, 2014, China Crop Protection Industry Association (CCPIA) will hold the "Fourth Seminar on the Environmentally-friendly Formulation and Packaging (F&P) Technology and Production Equipments" at Shanghai Everbright International Hotel.

The Seminar serves an interactive platform for the discussion and communication among pesticide formulation enterprises, which is established for the purpose of accelerating the research and development and production of environmentally-friendly pesticide formulations, improving the overall

level of the pesticide industry and supporting the work concerning agriculture, rural areas, and farmers more effectively. Considering that it will continue the splendor of the last three seminars and the event has attracted widespread attention of the industry, this Seminar will attract nearly one thousand representatives from formulators, research institutes, equipment manufacturers and adjuvant suppliers and so on and will be an unprecedentedly grand occasion.

About 20 officials and industry experts will be invited to the Seminar to interpret on the limit standards of harmful solvents in EC and introduce the development and application of substitute solvents with study instances on formulation and solvent substitutes. Meanwhile, the subject on the formulation research trends of transnational companies will be added, to introduce the formulation research and development thoughts and cross contamination control in production of multinational corporations. At the seminar, there will also be detailed introduction to the microcapsule formulation technology and seed treatment technology concerned by the industry.

# Review on CCPIA HSE Work in 2013

China Crop Protection Industry Association (CCPIA) attaches great importance to the HSE work of the pesticide industry and is one of the earliest associations in the Chinese petrochemical industry to introduce the product stewardship concept.

In 2013, with the support and joint efforts of governments at all levels, associations, member enterprises and multinational corporations, CCPIA carried out the following work:

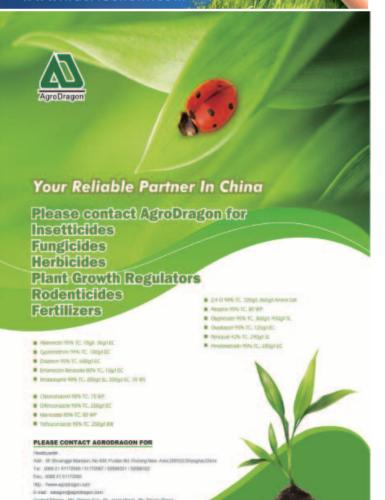
In April and October 2013, CCPIA and Syngenta jointly held two sessions of the HSE High-level Seminar of the Pesticide Industry of China, to transmit the product stewardship and HSE idea to the senior management of the industry. In May 2013, based on the HSE Management Standard for the Pesticide Industry issued in 2012, CCPIA, with the help of some multinational corporations, formulated and issued the HSE assessment standard applicable to the Chinese pesticide industry - Provisions on the Audit of the HSE Management System of the China Pesticide Industry.



In May and November 2013, CCPIA held two HSE trainings themed by technological process risk assessment and management in Nantong, Jiangsu and Shangyu, Zhejiang respectively. Over 500 representatives from nearly 200 enterprises participated in the trainings.

In July and August 2013, CCPIA, with the support of multinational corporations including Bayer, Syngenta and Dow AgroSciences, adopted the Provisions on the Audit of the HSE Management System of the China Pesticide Industry, and audited some local pesticide enterprises that volunteered for the audit, of which, 12 enterprises meet the standards specified in the Provisions and are rated as basic HSE qualified enterprises.

In 2014, CCPIA will continue to make efforts in promoting the responsible care of pesticide enterprises and improving HSE management level. The specific plan includes: continuous training and assessment and the follow-up and improvement of previously qualified enterprises. Moreover, CCPIA will initiate and establish the "Product Stewardship Union of the Pesticide Industry" and set up a HSE engineering master class with Nanjing University of Technology in 2014.



PRODUCTS



#### Syngenta AG

Registered Product	Content	Formulaitons	Valid From	Valid Until	Registration No.
Fludioxonil	50%	WP	2014.04.27	2019.04.27	PD20095400
Fludioxonil+Metalaxyl-M+Thiamethoxam	29%	FS	2014.04.10	2015.04.10	LS20120132
Fludioxonil+Metalaxyl-M+Thiamethoxam	25%	FS	2014.04.10	2015.04.10	LS20120131
Pymetrozine	50%	WDG	2014.03.27	2019.03.27	PD20094118
Cyromazin	75%	WP	2014.03.26	2019.03.26	PD20093924
Dicamba	480g/L	AS	2014.03.25	2019.03.25	PD97-89
Profenofos	89%	TC	2014.03.25	2019.03.25	PD271-99
Propiconazole	156g/L	EC	2014.03.18	2019.03.18	PD20093358
Metalaxyl-M+azoxystrobin	39%	SC	2014.03.12	2015.03.12	LS20130114
Mesotrione	40%	SC	2014.03.06	2015.03.06	LS20120067
Atrazine	90%	WDG	2014.01.20	2019.01.20	PD20090988
Chlorothalonil	98%	TC	2013.12.16	2018.12.16	PD20083920
Emamectin Benzoate	95%	TC	2013.12.15	2018.12.15	PD20083944
Mesotrione+Pretilachlor	5%	GR	2013.12.09	2014.12.09	LS20130507
Thiamethoxam	30%	FS	2013.12.09	2014.12.09	LS20110227
Avermectin+Chlorobenzene acid	6%	SC	2013.11.20	2018.11.20	PD20132405
Atrazine	96%	TC	2013.11.20	2018.11.20	PD20081892
Fludloxonll	12%	SC	2013.11.08	2014.11.08	LS20130482
Pymetrozine	95%	TC	2013.10.28	2018.10.28	PD20081388
Oxadixyl+Mancozeb	64%	WP	2013.10.10	2018.10.10	PD82-88
Mesotrione+S-metolachl/or+Atrazine	38.50%	SE	2013.10.10	2014.10.10	LS20130463
Prodiamine	93%	TC	2013.09.25	2018.09.25	PD20131932
Prodiamine	65%	WDG	2013.09.25	2018.09.25	PD20131926
Difenoconazole+Propicondzole	300g/L	EC	2013.09.25	2018.09.25	PD20070088

Thiamethoxam	46%	FS	2013.07.29	2014.07.29	LS20130392
Propiconazole+Azoxystrobin	18.70%	SE	2013.07.18	2014.07.18	LS20110194
Metalaxyl-M+Mancozeb	68%	WDG	2013.07.14	2018.07.14	PD20080846
Thiamethoxam	21%	SC	2013.07.05	2018.07.05	PD20131474
Difenoconazole	250g/L	EC	2013.06.11	2018.06.11	PD20080730
Fenpropidin+Propiconazole	42%	EC	2013.06.04	2014.06.04	LS20130314
Fenpropidin	96%	TC	2013.06.04	2014.06.04	LS20130313
Pinoxaden	5%	EC	2013.05.13	2018.05.13	PD20131017
Pyribenzoxim+Pretilachlor	30.60%	EC	2013.04.22	2018.04.22	PD20130863
Mesotrione+Atrazine	25%	SC	2013.04.12	2014.04.12	LS20120141
Profenofos	500g/L	EC	2013.03.27	2018.03.27	PD20080452
Trifloxysulfuron Sodium	90%	TC	2013.03.11	2018.03.11	PD20130366
Trifloxysulfuron Sodium	11%	OD	2013.03.11	2018.03.11	PD20130364
Difenoconazole+fludioxonil+thiamethoxam	27%	FS	2013.03.11	2014.03.11	LS20130089

#### BASF SE

Registered Product	Content	Formulaitons	Valid From	Valid Until	Registration No.
Epoxiconazol	75g/L	EC	2014.04.27	2019.04.27	PD20095337
Kresoxim-methyl+Epoxiconazol	23%	SC	2014.02.06	2015.02.06	LS20130042
Flocoumafen	0.01%	RB	2014.01.15	2019.01.15	PD185-94
Saflufenacil	97.40%	TC	2013.09.25	2018.09.25	PD20131924
Topramezone	97%	TC	2013.09.25	2018.09.25	PD20131925
Saflufenacil	70%	WDG	2013.09.25	2018.09.25	PD20131930
Topramezone	30%	SC	2013.09.25	2018.09.25	PD20131931
Pyraclostrobin+Fluxapyroxad	42.40%	SC	2013.09.17	2014.09.17	LS20130445
Xemium	98%	TC	2013.09.17	2014.09.17	LS20130446
Fluxapyroxad+Epoxiconazol	12%	EC	2013.09.17	2014.09.17	LS20130447
Bentazone	96%	TC	2013.09.11	2018.09.11	PD20081197
Cyprosulfamide	50%	WDG	2013.08.19	2018.08.19	PD20081106
Cyprosulfamide	96%	TC	2013.08.19	2018.08.19	PD20081107
Ametoctradin	98%	TC	2013.08.06	2014.08.06	LS20120280
Dimethomoph+Ametoctradin	47%	SC	2013.08.06	2014.08.06	LS20120281
Formicide	0.73%	RG	2013.08.04	2014.08.04	WL20110089
Pendimethalin	330g/L	EC	2013.07.24	2018.07.24	PD178-93
Chlorfenapyr	240g/L	SC	2013.04.17	2018.04.17	WP20130065
Pyraclostrobin+Metiram	60%	WDG	2013.04.10	2018.04.10	PD20080506
Imazethapyr	50g/L	AS	2013.04.09	2018.04.09	PD172-93
Pyraclostrobin	95%	TC	2013.03.31	2018.03.31	PD20080463
Pyraclostrobin	250g/L	EC	2013.03.31	2018.03.31	PD20080464
MCPA+Bentazone	460g/L	SL	2013.03.31	2018.03.31	PD20080470
Imazamox	97%	TC	2013.03.31	2018.03.31	PD20080473
Imazamox	4%	AS	2013.03.31	2018.03.31	PD20080474
Chlorfenapyr	94.50%	TC	2013.03.31	2018.03.31	PD20080476
Chlorfenapyr	10%	SC	2013.03.31	2018.03.31	PD20080477
Chlorfenapyr	240g/L	SC	2013.03.29	2018.03.29	PD20130533
Triticonazole	28%	FS	2013.03.12	2018.03.12	PD20130400
Imazapyr	25%	AS	2013.03.11	2018.03.11	PD20080433
Imazapyr	95%	TC	2013.03.11	2018.03.11	PD20080434
Abate	90%	TC	2013.03.11	2018.03.11	WP20080053
Granular Insecticide	1%	GR	2013.03.11	2018.03.11	WP20080054
Alpha-Cypermethrin	250g/L	TK	2013.03.04	2018.03.04	WP20080050
Alpha-Cypermethrin	100g/L	SC	2013.02.26	2018.02.26	WP20080030
Alpha-Cypermethrin	93%	TC	2013.01.11	2018.01.11	PD20080229
Sulphur	80%	WDG	2013.01.03	2018.01.03	PD20080071

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#### Dow AgroSciences

Registered Product	Content	Formulaitons	Valid From	Valid Until	Registration No.
Chlorpyrifos	97%	TC	2014.03.31	2019.03.31	PD273-99
Penoxsulam	22%	SC	2014.02.05	2015.02.05	LS20130039
Aminopyralid	91.60%	TC	2014.01.15	2015.01.15	LS20130026
Aminopyralid	21%	AS	2014.01.06	2015.01.06	LS20130008
Oxyfluorfen	240g/L	EC	2014.01.06	2019.01.06	PD109-89
Mancozeb	430g/L	SC	2013.09.01	2018.09.01	PD20081132
Clopyralid	95%	TC	2013.08.19	2018.08.19	PD20081117
Clopyralid	75%	WSG	2013.08.19	2018.08.19	PD20081118
Fenbuconazole	24%	SC	2013.07.09	2018.07.09	PD240-98
MCPA-isooctyl+Foramsulfuron	43%	SE	2013.06.19	2014.06.19	LS20130334
Haloxyfop-P-methyl	94%	TC	2013.05.27	2018.05.27	PD20080662
Spinosad	0.02%	RG	2013.05.27	2018.05.27	PD20080666
Sulfoxaflor	50%	WDG	2013.05.24	2014.05.24	LS20130290
Sulfoxaflor	22%	SC	2013.05.24	2014.05.24	LS20130291
Sulfoxaflor	95.50%	TC	2013.05.13	2014.05.13	LS20130288
Meptyldinocap	90%	TC	2013.04.24	2014.04.24	LS20130218
Meptyldinocap	36%	EC	2013.04.24	2014.04.24	LS20130219
Chlorpyrifos	40%	EW	2013.04.11	2014.04.11	LS20110108
Dithiopyr	91.50%	TC	2013.04.09	2018.04.09	PD20080496
Oxyfluorfen	97%	TC	2013.03.17	2018.03.17	PD20030001
Trichlopyr	480g/L	EC	2013.01.22	2018.01.22	PD153-92

#### Bayer CropScience

Registered Product	Content	Formulaitons	Valid From	Valid Until	Registration No.
Oxadiazon	94%	TC	2014.06.25	2019.06.25	PD285-99
Phosethyl-Al	96%	TC	2014.04.21	2019.04.21	PD20094981
Thidiazuron+Dichlorfenidim	540g/L	SC	2014.01.12	2019.01.12	PD20090444
Fluopicolide	97%	TC	2014.01.04	2019.01.04	PD20090011
Fluopicolide+Prompamocarb	687.5g/L	SC	2014.01.04	2019.01.04	PD20090012
Tebuconazole	250g/L	EW	2013.11.21	2018.11.21	PD20081918
Mesosulfuron-methyl+Iodosulfuron-methyl sodium	3.60%	WDG	2013.10.31	2018.10.31	PD20081445
Cyfluthrin	92%	TC	2013.09.23	2018.09.23	PD250-98
Fluopyram+Trifloxystrobin	42.80%	SC	2013.06.28	2014.06.28	LS20130338
Fenoxaprop-p-ethyl	69g/L	EW	2013.06.25	2018.06.25	PD238-98
Flubendiamide	95%	TC	2013.01.17	2018.01.17	PD20130121

#### DuPont

Registered Product	Content	Formulaitons	Valid From	Valid Until	Registration No.
Bensulfuron methyl	30%	WP	2014.02.20	2019.02.20	PD267-99
Famoxadone+Mancozeb	68.75%	WDG	2014.01.19	2019.01.19	PD20090685
Dichlorfenidim	98.40%	TC	2014.01.12	2019.01.12	PD20090445
Chlorantraniliprole	50%	FS	2013.12.10	2014.12.10	LS20130514
Cyantraniliprole	94%	TC	2013.09.13	2014.09.13	LS20120327
Cyantraniliprole	10%	OD	2013.09.13	2014.09.13	LS20120328
Picoxystrobin	22.50%	SC	2013.06.21	2014.06.21	LS20120228
Thifensulfuron	95%	TC	2013.03.17	2018.03.17	PD387-2003
Thifensulfuron	75%	WDG	2013.03.17	2018.03.17	PD388-2003
Bensulfuron-methyl+Metsulfuron-methyl	10%	WP	2013.03.11	2018.03.11	PD384-2003
Metsulfuron-methyl	96%	TC	2013.03.07	2018.03.07	PD383-2003

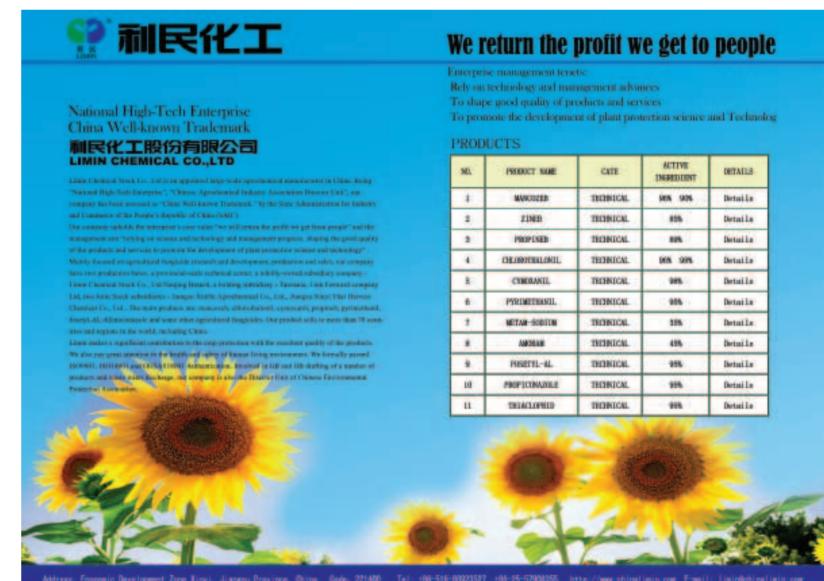
#### Monsanto

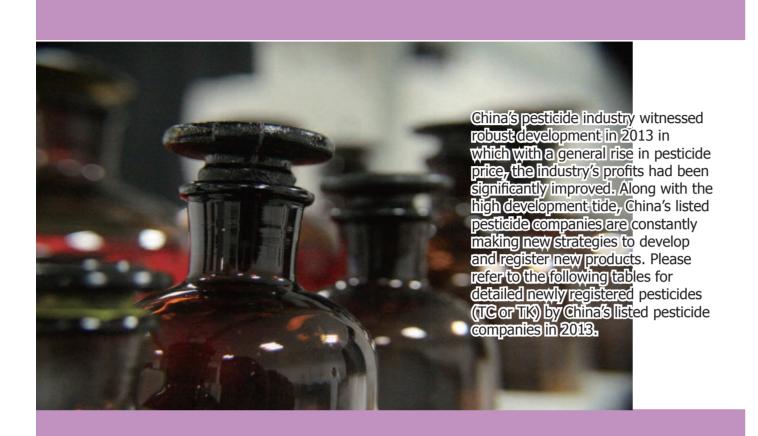
Registered Product	Content	Formulaitons	Valid From	Valid Until	Registration No.
Acetochlor	900g/L	EC	2013.08.14	2018.08.14	PD243-98
Butachlor	600g/L	EW	2013.08.14	2018.08.14	PD76-88
Silthiopham	97.70%	TC	2013.06.16	2018.06.16	PD20080775
Silthiopham	125g/L	SC	2013.06.16	2018.06.16	PD20080776
Glyphosate isopropylammonium	30%	AS	2013.04.15	2018.04.15	PD73-88
Alachlor	480g/L	EC	2013.02.19	2018.02.19	PD88-88

According to the statistics, the pesticide products registered by the six multinational enterprises in China include 18 insecticides, 34 fungicides, 39

herbicides and 3 others (including rodenticide and seed coatings).

Company Name	Herbicides	Fungicides	Insecticides	Others
Syngenta AG	10	11	6	2
BASF SE	8	12	5	1
Dow AgroSciences	8	3	3	
Bayer CropScience	4	5	2	
DuPont	5	2	2	
Monsanto	4	1		





# Summary of Pesticide Product Newly Registered by Listed Companies in 2013

Jiangsu Huifeng Agrochemical Co., Ltd.

Registration No.	Registered Product	Content	Formulaitons	Valid From	Valid Until
PD20130280	Glufosinate-ammonium	95%	TC	2013.02.21	2018.02.21
PD20132601	2, 4-D butylate	96%	TC	2013.12.17	2018.12.17

Shangyu Nutrichem Fine Chemical Industry Co., Ltd.

Registration No.	Registered Product	Content	Formulaitons	Valid From	Valid Until
PD20130037	Sulcotrione	98%	TC	2013.01.07	2018.01.07
PD20130196	Carfentrazone-ethyl	95%	TC	2013.01.24	2018.01.24
PD20130804	Azoxystrobin	98%	TC	2013.04.22	2018.04.22

## Zhejiang Shenghua Biok Biology Co., Ltd.

Registration No.	Registered Product	Content	Formulaitons	Valid From	Valid Until
PD20070102	Dicamba	95%	TC	2012.04.26	2017.04.26
PD20070107	Picloram	95%	TC	2012.04.26	2017.04.26
PD20070122	Avermectin	90%	TC	2012.05.18	2017.05.18
PD20086033	Gibberellic acid A4,A7	90%	TC	2013.12.29	2018.12.29

## Zhejiang Wynca Chemical Industry Group Co., Ltd.

Registration No.	Registered Product	Content	Formulaitons	Valid From	Valid Until
PD20130665	Potassium glyhosate	77.6%	TC	2013.04.17	2018.04.17
PD20131844	Glyphosate isopropylammonium	70.5%	TC	2013.09.23	2018.09.23

#### Jiangsu Lianhe Technology Co., Ltd.

Registration No.	Registered Product	Content	Formulaitons	Valid From	Valid Until
PD20130281	Cyhalofop-butyl	97.5%	TC	2013.02.26	2018.02.26
PD20130376	Sulfentrazone	91%	TC	2013.03.11	2018.03.11

#### Jiangsu Yangnong Chemical Group Co., Ltd.

Registration No.	Registered Product	Content	Formulaitons	Valid From	Valid Until
PD20130786	Trinexapac-ethyl	96%	TC	2013.04.22	2018.04.22
PD20131294	Indoxacarb	70.5%	TC	2013.06.08	2018.06.08
PD20131446	Glufosinate ammonium	95%	TC	2013.07.05	2018.07.05
PD20132113	Pendimethalin	96%	TC	2013.10.24	2018.10.24
PD20130786	Trinexapac-ethyl	96%	TC	2013.04.22	2018.04.22
PD20131294	Indoxacarb	70.5%	TC	2013.06.08	2018.06.08
PD20131446	Glufosinate ammonium	95%	TC	2013.07.05	2018.07.05
PD20132113	Pendimethalin	96%	TC	2013.10.24	2018.10.24
WL20130017	Acrinathrin	95%	TC	2013.03.25	2014.03.25

#### Jiangsu Changqing Agrochemical Co., Ltd.

Registration No.	Registered Product	Content	Formulaitons	Valid From	Valid Until
PD20130751	Triasulfuron	95	TC	2013.04.16	2018.04.16
PD20132051	Indoxacarb	71.25%	TK	2013.10.22	2018.10.22
PD20132082	S-metolachlor	96%	TC	2013.10.24	2018.10.24
PD20132656	Thiamethoxam	98%	TC	2013.12.20	2018.12.20

### Jiangsu Lanfeng Biochemical Co., Ltd.

Registration No.	Registered Product	Content	Formulaitons	Valid From	Valid Until
LS20130088	Tebuthiuron	95%	TC	2014.03.11	2015.03.11
PD20131005	Ethephon	89%	TC	2013.05.13	2018.05.13
PD20131733	Prochloraz	98%	TC	2013.08.16	2018.08.16
PD20131757	Metazachlor	97%	TC	2013.09.06	2018.09.06

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## **PRODUCTS**

#### Nanjing Red Sun Co., Ltd.

Registration No.	Registered Product	Content	Formulaitons	Valid From	Valid Until
PD20130145	Pymetrozine	97%	TC	2013.01.17	2018.01.17

#### Hebei Veyong Bio-chemical Co., Ltd.

Registration No.	Registered Product	Content	Formulaitons	Valid From	Valid Until
PD20131090	Glufosinate ammonium	95%	TC	2013.05.20	2018.05.20

#### Lier Chemical Co., Ltd.

Registration No.	Registered Product	Content	Formulaitons	Valid From	Valid Until
LS20130370	Methiadinil	96%	TC	2013.07.23	2014.07.23
PD20131010	Glufosinate ammonium	50%	TK	2013.05.13	2018.05.13

#### Hunan Haili Chemical Industry Co., Ltd.

Registration No.	Registered Product	Content	Formulaitons	Valid From	Valid Until
PD20131116	Carbaryl	99%	TC	2013.05.20	2018.05.20
PD20132606	Thiamethoxam	98.5%	TC	2013.12.19	2018.12.19

#### Hubei Sanonda Co., Ltd.

Registration No.	Registered Product	Content	Formulaitons	Valid From	Valid Until
PD20131506	2,4-D	98%	TC	2013.07.15	2018.07.15



## **Registration of Off-patent Pesticide in China during the Past Five Years**

Pesticides can be divided into patented and generic products. In the global pesticide market, generic products account for 70% of the total market share. Between 2008 and 2013, 99 pesticide patents expired, including 47 kinds of herbicides, 23 insecticides, and 29 fungicides. How to effectively make full use of the expired patents gives the Chinese pesticide enterprises an opportunity to seize the market share. So what is the current situation of off-patent pesticides in China? According to statistics, as of now, there were a number of patented TC products which expired between 2008 and 2013 including 12 herbicides, 13 insecticides and six fungicides that have already registered in China. Among the off-patent products, azoxystrobin, acetamiprid and thiamethoxam TC products had the most registrants, respectively 46, 41 and 23. Detailed information is as follows:

#### **Herbicides: Product Name (No. of Registrants)**

Florasulam (5), Ethoxysulfuron (2), Amidosulfuronl (2), Oxaziclomefone (2), Triflusulfuron-methyl (1), Pyraflufen-ethyl (1), Butafenacil (1), Cyclosulfamuron (1), Pyriftalid (1), Trifloxysulfuron (1), Flucarbazone

(1), Monosulfuron (1).

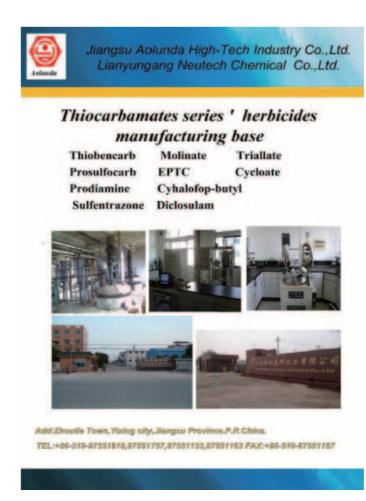
## Insecticides: Product Name (No. of Registrants)

Acetamiprid (41), Thiamethoxam (23), Fipronil (18), Emamectin Benzoate (15), Pymetrozine (11), Indoxacarb (6), Clothianidin (5), Methoxyfenozide (3), Chlorfenapyr (2), Bifenazate (2), Fenazaquin (1), Etoxazole (1), Flonicamid (1).

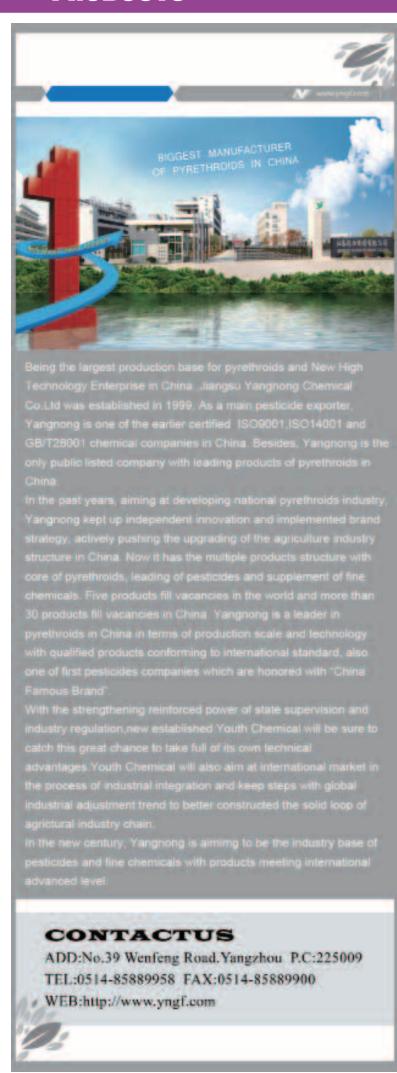
#### **Fungicides: Product Name (No. of Registrants)**

Azoxystrobin (46), Cyazofamid (2), Zoxamide (2), Picoxystrobin (1), Trifloxystrobin (1), Ningnanmycin (1).

Faced with the current situation, China pesticide industry should reasonably develop the off-patent pesticides to avoid overinvestment. This will help adjust and optimize the product structure of China's pesticide industry, which then is conducive to a healthy and orderly development of China pesticide industry.







## Henan Yingtai Agrochemical Received the First Registration Approval for Quinmerac TC in China

Henan Yingtai Agrochemical Co., Ltd. has received the formal registration approval from ICAMA for its 96% quinmerac TC product recently. The registration will be valid for five years, starting from January 28, 2014 to January 28, 2019. Henan Yingtai Agrochemical Co., Ltd. is the first domestic enterprise which has received the registration approval for ginmerac TC product.

Quinmerac is a pre-emergence selective herbicide which is used to control broad-leaved weeds growing in cereals, oilseed rape, sugar beet and other crops. The active ingredient is mainly absorbed by the root of the weeds, and some through foliar absorption. After being absorbed, it will be conducted upward and downward to inhibit the growth of the weeds until they wither. High humidity helps the rapid absorption of the herbicide and makes it take effect quickly.

BASF launched quinmerac in 1993. The formulation, Novall/Katamaran, mixing quinmerac with metazachlor is applied on oilseed rape, and the formulation, Rebell, mixing quinmerac with chloridazon is applied on sugar beet. BASF in 2012 received the registration approval in Germany for its formulation, Clearfield Vantiga, mixing quinmerac, metazachlor and Imazamox. Clearfield Vantiga is used on Clearfield oilseed rape. Currently, quinmerac has been re-registered in EU. The global sales of quinmerac reached 140 million dollars in 2012.

# Kesai Agrochem Received the First Registration Approval for Its Pyrazosulfuron+Pretilachlor PP

The PP formulation, mixing pyrazosulfuron with pretilachlor (Yipaole in Chinese), first registered in ICAMA by Shandong Jinan Kesai Agrochem Co., Ltd. has a remarkable sealing effect on various kinds of weeds including barnyard grass, moleplant seed, arrowhead, rhizoma alismatis and nutgrass

flatsedge. Based on market research, it is found that the total area under the application of Kesai Agrochem's effervescent tablet product Yipaole (16.5% pretilachlor+pyrazosulfuron) across the country is estimated to reach thousands of millions of mu<sup>1</sup>. Yipaole was granted the "Award for the Most Market Potential" at the Second South China Pesticide Product Power List. It is thus clear that this convenient type of effervescent tablets is welcomed among the farmers. Therefore, it is believed that there will be more and more farmers using and benefiting from the product.

PP is a new introduced pesticide formulation which has distinctive advantages. It is unique in soil-sealing weeding in the paddy field, which greatly reduces the labor intensity in applying the pesticide and is safe for the environment. Kesai Agrochem Co., Ltd.'s product manager introduced the application method of Yipaole which is easy and convenient: apply 200-270 g/mu (35-50 tablets) in the north of China, and 150-200 g/mu (27-35 tablets) in the south of China. Throw one tablet each time and an area of one mu will be covered within two minutes. In land parcels of large quantities of worst weeds, a larger amount of the tablets can be used. It will achieve good effect when applied before the crops are transplanted or after they turn green after transplantation with a water layer of 3-5 cm deep in the land parcels and water retention lasting 5-7 days.

Note: 1. 1ha=15mu

# ICAMA to Remove Registration under Exporting only Purpose

Recently, MOA circulated the meeting minutes of 14th plenary session of the 8th National Expert Committee for Pesticide Registration, which was concluded in Beijing. Application material of 19 products were reviewed and discussed, including 13 active ingredients (2 fungicides, 3 insecticides, 7 herbicides and 1 hygienic insecticide). The conference ultimately leads to full registration of 10 active ingredients granted, including Dupont's novel insecticide, cyantraniliprole. The company once sought the registration in China, but with only temporary registration obtained in 2012. Fluometuron and other 4 active ingredients were registered for exporting only. However, tralomethrin and another active ingredient were denied of

full registration. The applicants of the two active ingredients need to complement data to associated evaluation panels. Once approved by the panels, they will be granted the full registration.

Besides the registration outcome, the Committee offered several proposals on registration management during the meeting:

- The registration category of "exporting only" serves as an expedient for exporting-oriented industry. The legitimacy of "registration under exporting only" is suggested to be removed from the registration system. Some experts from the committee also pointed out that acceptance of such registration applications should be terminated;
- The government should elevate the requirement on labeling of hygienic insecticide as the trademark, trade name, icon and word mark would induce ingestion by children and baby. All misleading labels of hygienic insecticide should be prohibited;
- An incentive plan for minor-crop use pesticide should be established. Registration of these products could be encouraged through data waiving, data sharing among analogue pesticides or pesticides of similar application target and joint submission.



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## **CHINA CROP PROTECTION INDUSTRY ASSOCIATION(CCPIA)**

Address: Room 1315, Anhuili 4th Area, Chaoyang District, Beijing, China Postal Code: 100723 Fax: 86-1084885255 Websites:www.ccpia.org.cn/en www.agrochemex.org/en(exhibition) GENERAL ENQUIRIES E-mail: yousheng@ccpia.org.cn Tel: 86-1084885145, 86-10-84885035