

# Survey of Pesticide Industry in China

<https://marketpublishers.com/r/F5ADE1BB49FEN.html>

Date: February 2017

Pages: 311

Price: US\$ 6,480.00 (Single User License)

ID: F5ADE1BB49FEN

## Abstracts

As a large agriculture country, China has become the biggest production base of pesticides in the world, with its crop area of over 160 million hectares in the past four years, strongly supporting for large domestic pesticide demand. In 2010-2015, China's pesticide output had kept an uptrend, with a CAGR of 9.81%, reaching 3.74 million tonnes (calculated by 100% technical) in 2015.

Nevertheless, there are many problems in China's pesticide industry, such as overcapacity, inefficient production technologies, capital shortage, few well-known brands and serious environmental pollution. Furthermore, pesticide abuse in crops causing horrible food safety has been increasingly paid highly attention in China these years. All of those have restricted China's pesticide development.

The Chinese government is now actively strengthening the pesticide industry by releasing stricter policies for environmental protection, raising threshold, phasing out highly toxic and highly residual pesticides, etc. In China, some pesticides have been banned by the Chinese government in application these years. Even the Chinese government is planning to realize zero growth in the application of pesticide by 2020.

In a circumstance of depressing global economy, some pesticides have shown downtrend in supply and demand these years. With policy pressure from the Chinese government, lot of pesticide producers, have trapped in an embarrassing situation, especially those small producers. Then how is the market of each major pesticide in China going on? In order to figure out China's pesticide market clearly, CCM has selected 18 major pesticides to do a deep research, including 6 herbicides, 6 fungicides and 6 insecticides. And the detailed research aspects are as follows:

Registration of 18 pesticide technical and formulations in China

Capacity and output of 18 pesticide technical in China

Key manufacturers of 18 pesticides in China

Production technology of 18 pesticide technical in China

Ex-works price of 18 pesticide technical and formulations in China

Application of 18 pesticide technical in China

Forecast on supply and demand of 18 pesticide technical in China

Regulation and policy analysis

Influencing factor analysis of Chinese pesticide market

Research on major pesticide companies

## Contents

Table 1.1-1 Development history of China's pesticide industry
Table 1.3-1 Major M&A cases in China's pesticide industry, 2011-2013
Table 1.3-2 List of eight batches of M&A in China's pesticide industry, 2012
Table 1.3-3 List of seven batches of M&A in China's pesticide industry, 2013
Table 1.3-4 List of nine batches of M&A in China's pesticide industry, 2014
Table 1.4.1-1 Output of chemical pesticides (calculated by 100% technical) in China by product category, 2013–2015, '000 tonne
Table 1.4.1-2 Consumption volume of pesticides (calculated by 100% technical) in China by product category, 2013–2015, tonne
Table 1.4.1-3 China's imports and exports of pesticides, 2013–2015
Table 1.4.1-4 Consumption volume (by technical) of pesticides in China, 2007–2012, tonne
Table 1.4.3-1 Output of main pesticide technical in China, 2015
Table 2.1-1 Major administrations and policies on pesticides or pesticide industry in China
Table 2.1.2-1 Basic registration policies in Chinese pesticide industry, as of Nov. 2015
Table 2.1.3-1 Components of effluent standards of pollutants for pesticide industry in China
Table 2.1.3-2 Integrated wastewater discharge standard, GB8978-1996, mg/L
Table 2.1.3-3 Environmental protection policies and environmental cost in pesticide industry in China, 2013
Table 2.3-1 Per capita disposable income of urban residents in China, 2000-2014
Table 2.4.2-1 Key regulations on GMO and GM technology in China, as of Nov. 2015
Table 2.4.3-1 Advantages of non-tillage cultivation technique
Table 2.4.4-1 Estimation of China's pest and disease occurrence, 2017
Table 2.4.4-2 Common pesticide-resistant insect pests and diseases in China
Table 2.5-1 Technologies promoted by the Chinese government, as of Feb. 2016
Table 3.1-1 Major varieties of insecticides in China
Table 3.2-1 Registrations of chlorpyrifos in China, as of 13 Jan., 2017
Table 3.2-2 Capacity and output of main chlorpyrifos technical producers in China, 2015-H1 2016
Table 3.2-3 Comparison between trichloroacetyl chloride route and pyridine route in the production of STCP
Table 3.2-4 Production, export, import and apparent consumption of chlorpyrifos in China, 2010-H1 2016
Table 3.3-1 Registrations of abamectin in China, as of 13 Jan., 2017
Table 3.3-2 Basic information of major abamectin technical producers in China

Table 3.3-3 Capacity and output of major abamectin technical producers in China, 2011-2015

Table 3.3-4 Comparison of two fermentation routes for abamectin production in China

Table 3.3-5 Output, export, import and apparent consumption of abamectin in China, 2011-2015, tonne

Table 3.4-1 Registrations of imidacloprid in China, as of 13 Jan., 2017

Table 3.4-2 Basic information of imidacloprid technical producers in China

Table 3.4-3 Capacity and output of imidacloprid technical producers in China, 2011-2015

Table 3.4-4 Comparison of major imidacloprid production routes in China

Table 3.4-5 Output, export, import and apparent consumption of imidacloprid (calculated by 97% technical) in China, 2011-2015, tonne

Table 3.5-1 Registrations of acephate in China, as of 13 Jan., 2017

Table 3.5-2 Capacity and output of main acephate technical producers in China, 2015 and H1 2016

Table 3.5-3 Output, export, apparent consumption of acephate in China, 2011-2015, tonne

Table 3.6-1 Registrations of thiamethoxam in China, as of 13 Jan., 2017

Table 3.6-2 Capacity and output of thiamethoxam technical manufacturers in China, 2011-2015

Table 3.6-3 Potential capacity of thiamethoxam technical in China, as of March 2016

Table 3.7-1 Registrations of lambda-cyhalothrin in China, as of 13 Jan., 2017

Table 3.7-2 Capacity and output of main lambda-cyhalothrin technical producers in China, 2015 and H1 2016

Table 3.7-3 Output, export, import and apparent consumption of lambda-cyhalothrin in China, 2011-2015, tonne

Table 4.1-1 Classifications of herbicides

Table 4.1-2 Output of major herbicide technical in China, 2011-2015, tonne

Table 4.2-1 Registrations of glyphosate in China, as of 13 Jan., 2017

Table 4.2-2 Capacity and output of main glyphosate technical producers in China, 2015-2016

Table 4.2-3 Key glyphosate formulations in China

Table 4.2-4 Output of key glyphosate formulations in China, 2013-H1 2016, tonne

Table 4.2-5 Comparison of different pathways in glyphosate technical production

Table 4.2-6 Major producers of glyphosate technical in China by pathway, 2015

Table 4.2-7 Output, export, import and apparent consumption of glyphosate in China, 2011-H1 2016, tonne

Table 4.2-8 Consumption and market share of glyphosate formulations in China, 2013-H1 2016

Table 4.2-9 Planting area of main crops in China, 2011-2015, '000 hectare

Table 4.3-1 Registrations of acetochlor in China, as of 13 Jan., 2017

Table 4.3-2 Capacity and output of main acetochlor technical producers in China, 2015-H1 2016

Table 4.3-3 Comparison on AI content and yield coefficient of acetochlor between methylene route and ether route in China

Table 4.3-4 Output, export, import and apparent consumption of acetochlor in China, 2011-2015, tonne

Table 4.4-1 Registrations of paraquat in China, as of 13 Jan., 2017

Table 4.4-2 Capacity and output of paraquat TK manufacturers in China, 2011-H1 2016

Table 4.5-1 Registrations of dicamba in China, as of 13 Jan., 2017

Table 4.5-2 Capacity and output of major producers of dicamba technical in China, 2011-H1 2016

Table 4.5-3 Production, export, import and apparent consumption of dicamba in China, 2008-H1 2016

Table 4.6-1 Registrations of glufosinate-ammonium in China, as of 13 Jan. 2017

Table 4.6-2 Capacity and output of producers of glufosinate-ammonium technical in China, 2012-2015

Table 4.6-3 Consumption of glufosinate-ammonium (calculated by 95% technical) in China by application field, 2011-2015

Table 4.7-1 Registrations of 2,4-D in China, as of 13 Jan., 2017

Table 4.7-2 Capacity and output of main 2,4-D technical producers in China, 2015-H1 2016

Table 4.7-3 Production, export, import and apparent consumption of 2,4-D in China, 2011-2015, tonne

Table 5.1-1 Classification and major products of fungicides in China

Table 5.2-1 Registrations of mancozeb in China, as of 3 Jan., 2017

Table 5.2-2 Basic information of main mancozeb technical producers in China

Table 5.2-3 Capacity and output of main mancozeb technical producers in China, 2015-H1 2016

Table 5.2-4 Output, export, import and apparent consumption of mancozeb in China, 2011-2015, tonne

Table 5.3-1 Registrations of carbendazim in China, as of 3 Jan. 2017

Table 5.3-2 Basic information of main carbendazim technical producers in China

Table 5.3-3 Capacity and output of main carbendazim technical producers in China, 2015-H1 2016

Table 5.3-4 Output, export, import and apparent consumption of carbendazim in China, 2013-2015, tonne

Table 5.3-5 Consumption volume of carbendazim formulations in China, 2013-2015

Table 5.4-1 Registrations of tebuconazole in China, as of 3 Jan., 2017

Table 5.4-2 Basic information of main tebuconazole technical producers in China

Table 5.4-3 Capacity and output of main tebuconazole technical producers in China, 2015-H1 2016

Table 5.4-4 Output, export, import and apparent consumption of tebuconazole in China, 2013-2015, tonne

Table 5.4-5 Consumption volume of tebuconazole in China, 2013-2015

Table 5.5-1 Registrations of difenoconazole in China, as of 3 Jan., 2017

Table 5.5-2 Basic information of main difenoconazole technical producers in China

Table 5.5-3 Capacity and output of main difenoconazole technical producers in China, 2015-H1 2016

Table 5.5-4 Output, export, import and apparent consumption of difenoconazole in China, 2011-2015, tonne

Table 5.5-5 Consumption and market value of difenoconazole in China, 2011-2015

Table 5.6-1 Registrations of chlorothalonil in China, as of 3 Jan., 2017

Table 5.6-2 Basic information of main chlorothalonil technical producers in China

Table 5.6-3 Capacity and output of main chlorothalonil technical producers in China, 2015-H1 2016

Table 5.6-4 Output, export, import and apparent consumption of chlorothalonil in China, 2011-2015, tonne

Table 5.6-5 Consumption volume of chlorothalonil formulations in China, 2011-2015

Table 5.7-1 Registrations of azoxystrobin in China, as of 3 Jan., 2017

Table 5.7-2 Basic information of azoxystrobin technical producers in China

Table 5.7-3 Capacity and output of main azoxystrobin technical producers in China, 2015-H1 2016

Table 5.7-4 Comparison of different routes for producing azoxystrobin technical in China

Table 5.7-5 Comparison between two different production methods for azoxystrobin technical in China, 2013

Table 5.7-6 Output, export, import and apparent consumption of azoxystrobin (calculated by 95% technical) in China, 2011-2015, tonne

Table 5.7-7 Apparent consumption and market value of azoxystrobin formulations in China, 2011-2015

Table 6.1-1 Basic info of Nanjing Red Sun Co., Ltd.

Table 6.1-2 Major pesticide technical species of Nanjing Red Sun Co., Ltd., 2016

Table 6.1-3 Capacity and output of major pesticide products in Nanjing Red Sun Co., Ltd., 2015-H1 2016

Table 6.2-1 Basic info of Zhejiang Wynca Chemical Industry Group Co., Ltd.

Table 6.2-2 Major pesticide species of Zhejiang Wynca Chemical Industry Group Co., Ltd., 2016



Table 6.2-3 Capacity and output of major pesticide products in Zhejiang Wynca Chemical Industry Group Co., Ltd., 2015-H1 2016

Table 6.3-1 Basic info of Jiangsu Yangnong Chemical Co., Ltd.

Table 6.3-2 Major pesticide species of Jiangsu Yangnong Chemical Co., Ltd., 2016

Table 6.3-3 Capacity and output of major pesticide products in Jiangsu Yangnong Chemical Group Co., Ltd., 2015-H1 2016

Table 6.4-1 Basic info of CEFC Anhui International Holding Co., Ltd.

Table 6.4-2 Major pesticide technical species of CEFC Anhui International Holding Co., Ltd., 2016

Table 6.4-3 Major pesticide formulation species of CEFC Anhui International Holding Co., Ltd., 2016

Table 6.4-4 Major intermediate species of CEFC Anhui International Holding Co., Ltd., 2016

Table 6.4-5 Capacity and output of major pesticide products in CEFC Anhui International Holding Co., Ltd., 2015-H1 2016

Table 6.5-1 Basic info of Shandong Weifang Rainbow Chemical Co., Ltd.

Table 6.5-2 Major herbicide species of Shandong Weifang Rainbow Chemical Co., Ltd., 2016

Table 6.5-3 Major insecticide species of Shandong Weifang Rainbow Chemical Co., Ltd., 2016

Table 6.5-4 Major fungicide species of Shandong Weifang Rainbow Chemical Co., Ltd., 2016

Table 6.5-5 Capacity and output of major pesticide products in Shandong Weifang Rainbow Chemical Co., Ltd., 2015-H1 2016

Table 6.6-1 Basic info of Zhejiang Jinfanda Biochemical Co., Ltd.

Table 6.6-2 Major pesticide species of Zhejiang Jinfanda Biochemical Co., Ltd., 2016

Table 6.6-3 Capacity and output of glyphosate technical in Zhejiang Jinfanda Biochemical Co., Ltd., 2015-H1 2016

Table 6.7-1 Basic info of Hubei Sanonda Co., Ltd.

Table 6.7-2 Major formulation species of Hubei Sanonda Co., Ltd., 2016

Table 6.7-3 Capacity and output of major pesticide products in Hubei Sanonda Co., Ltd., 2015-H1 2016

Table 6.8-1 Basic info of Nantong Jiangshan Agrochemical & Chemicals Co., Ltd.

Table 6.8-2 Major pesticides' species of Nantong Jiangshan Agrochemical & Chemicals Co., Ltd., 2016

Table 6.8-3 Capacity and output of major pesticide products in Nantong Jiangshan Agrochemical & Chemicals Co., Ltd., 2015-H1 2016

Table 6.9-1 Basic info of Shandong Binnong Technology Co., Ltd.

Table 6.9-2 Major pesticide species of Shandong Binnong Technology Co., Ltd., 2016

Table 6.9-3 Capacity and output of major pesticide products in Shandong Binnong Technology Co., Ltd., 2015-H1 2016

Table 6.10-1 Basic info of Jiangsu Changlong Agrochemical Co., Ltd.

Table 6.10-2 Major pesticide species of Jiangsu Changlong Agrochemical Co., Ltd., 2016

Table 6.10-3 Capacity and output of major pesticide products in Jiangsu Changlong Chemicals Co., Ltd., 2015-H1 2016

Table 6.11-1 Basic info of Jiangsu Fengshan Group Co., Ltd.

Table 6.11-2 Major pesticide technical species of Jiangsu Fengshan Group Co., Ltd., 2016

Table 6.11-3 Major pesticide formulation species of Jiangsu Fengshan Group Co., Ltd., 2016

Table 6.11-4 Capacity and output of major pesticide products in Jiangsu Fengshan Group Co., Ltd., 2015-H1 2016

Table 6.12-1 Basic info of Jiangsu Kwin Group Co., Ltd.

Table 6.12-2 Major pesticide formulation species of Jiangsu Kwin Group Co., Ltd., 2016

Table 6.12-3 Capacity and output of major pesticide products in Jiangsu Kwin Group Co., Ltd., 2015-H1 2016

Table 6.13-1 Basic info of Shandong Qiaochang Chemical Co., Ltd.

Table 6.13-2 Major pesticide species of Shandong Qiaochang Chemical Co., Ltd., 2016

Table 6.13-3 Capacity and output of major pesticide products in Shandong Qiaochang Chemical Co., Ltd., 2015-H1 2016

Table 6.14-1 Basic info of Jiangsu Changqing Agrochemical Co., Ltd.

Table 6.14-2 Major pesticide technical species of Jiangsu Changqing Agrochemical Co., Ltd., 2016

Table 6.14-3 Major pesticide formulation species of Jiangsu Changqing Agrochemical Co., Ltd., 2016

Table 6.14-4 Capacity and output of major pesticide products in Jiangsu Changqing Agrochemical Co., Ltd., 2015-H1 2016

Table 6.15-1 Basic info of Jiangsu Huifeng Agrochemical Co., Ltd.

Table 6.15-2 Major pesticide technical species of Jiangsu Huifeng Agrochemical Co., Ltd., 2016

Table 6.15-3 Major pesticide formulation species of Jiangsu Huifeng Agrochemical Co., Ltd., 2016

Table 6.15-4 Capacity and output of major pesticide products in Jiangsu Huifeng Agrochemical Co., Ltd., 2015-H1 2016

Table 6.16-1 Basic info of Lianhe Chemical Technology Co., Ltd.

Table 6.16-2 Capacity and output of major pesticide products in Jiangsu Lianhe Chemical Technology Co., Ltd., 2015-H1 2016



- Table 6.17-1 Basic info of Hunan Haili Chemical Industry Co., Ltd.
- Table 6.17-2 Major pesticide species of Hunan Haili Chemical Industry Co., Ltd., 2016
- Table 6.17-3 Capacity and output of major pesticide products in Hunan Haili Chemical Industry Co., Ltd., 2015-H1 2016
- Table 6.18-1 Basic info of Jiangsu Good Harvest-Weien Agrochemical Co., Ltd.
- Table 6.18-2 Major pesticide species of Jiangsu Good Harvest-Weien Agrochemical Co., Ltd., 2016
- Table 6.18-3 Capacity and output of glyphosate technical in Jiangsu Good Harvest-Weien Agrochemical Co., Ltd., 2015-H1 2016
- Table 6.19-1 Basic info of Zhejiang Zhongshan Chemical Industry Group Co., Ltd.
- Table 6.19-2 Capacity and output of atrazine technical in Zhejiang Zhongshan Chemical Industry Group Co., Ltd., 2015-H1 2016
- Table 6.20-1 Basic info of Lier Chemical Co., Ltd.
- Table 6.20-2 Major pesticide species of Lier Chemical Co., Ltd., 2016
- Table 6.20-3 Capacity and output of major pesticide products in Lier Chemical Co., Ltd., 2015-H1 2016
- Table 6.21-1 Basic info of Anhui Guangxin Agrochemical Co., Ltd.
- Table 6.21-2 Major pesticide species of Anhui Guangxin Agrochemical Co., Ltd., 2016
- Table 6.21-3 Capacity and output of major pesticide products in Anhui Guangxin Agrochemical Co., Ltd., 2015-H1 2016
- Table 6.22-1 Basic info of Jiangsu Lanfeng Biochemical Co., Ltd.
- Table 6.22-2 Major pesticide technical species of Jiangsu Lanfeng Biochemical Co., Ltd., 2016
- Table 6.22-3 Major pesticide formulation species of Jiangsu Lanfeng Biochemical Co., Ltd., 2016
- Table 6.22-4 Major intermediate species of Jiangsu Lanfeng Biochemical Co., Ltd., 2016
- Table 6.22-5 Capacity and output of major pesticide products in Jiangsu Lanfeng Biochemical Co., Ltd., 2015-H1 2016
- Table 6.23-1 Basic info of Limin Chemical Co., Ltd.
- Table 6.23-2 Major pesticide species of Limin Chemical Co., Ltd., 2016
- Table 6.23-3 Capacity and output of major pesticide products in Limin Chemical Co., Ltd., 2015-H1 2016
- Table 6.24-1 Basic info of Jiangsu Sevencontinent Green Chemical Co., Ltd.
- Table 6.24-2 Major pesticide species of Jiangsu Sevencontinent Green Chemical Co., Ltd., 2016
- Table 6.24-3 Capacity and output of major pesticide products in Jiangsu Sevencontinent Green Chemical Co., Ltd., 2015-H1 2016
- Figure 1.3-1 Sales value of pesticide enterprises in China, 2010-2014

Figure 1.4.1-1 Output share of chemical pesticide technical (calculated by 100% technical) in China by region, Jan.–Dec. 2015

Figure 2.3-1 Per capita net income of rural residents in China, 2000-2014

Figure 2.4.1-1 Annual cultivation area of crops in China, 2000-2014

Figure 2.4.1-2 Planting structure of crops in China, 2013

Figure 2.4.2-1 GM crop planting area in China, 2000-2014

Figure 3.1-1 Output and growth rate of insecticides in China, 2005-2015

Figure 3.1-2 Consumption of insecticides in China by product category, 2015

Figure 3.2-1 Capacity and output of chlorpyrifos technical in China, 2010-H1 2016

Figure 3.2-2 Chemical principle of chlorpyrifos synthesis in China

Figure 3.2-3 STCP synthesis by trichloroacetyl chloride route

Figure 3.2-4 STCP synthesis by pyridine route

Figure 3.2-5 General production process of chlorpyrifos technical by trichloroacetyl chloride route

Figure 3.2-6 Manufacturing process of TCP from pyridine

Figure 3.2-7 Annual ex-works price of chlorpyrifos 95% technical in China, 2010-2016

Figure 3.2-8 Monthly ex-works price of chlorpyrifos 95% technical in China, Jan. 2014-Dec. 2016

Figure 3.2-9 Monthly ex-works price of chlorpyrifos 480g/L EC in China, Jan. 2014-Oct. 2015

Figure 3.2-10 Actual consumption of chlorpyrifos (converted to 97% technical) in China, 2010-2015, tonne

Figure 3.2-11 Actual consumption of chlorpyrifos (converted to 97% technical) in China by crop, 2015

Figure 3.2-12 Forecast on output of chlorpyrifos technical (calculated by 97% technical) in China, 2016-2020, tonne

Figure 3.2-13 Forecast on demand for chlorpyrifos (calculated by 97% technical) in China, 2016-2020, tonne

Figure 3.3-1 Capacity and output of abamectin technical in China, 2011-2015

Figure 3.3-2 Process route of abamectin technical in China

Figure 3.3-3 Annual ex-works price of abamectin 95% technical in China, 2011-2016

Figure 3.3-4 Monthly ex-works price of abamectin 95% technical in China, Jan. 2014-Dec. 2016

Figure 3.3-5 Apparent consumption of abamectin (converted to 95% technical) in China by crop, 2015

Figure 3.3-6 Forecast on supply and demand of abamectin technical in China, 2016-2020

Figure 3.4-1 Capacity and output of imidacloprid technical in China, 2011-2015

Figure 3.4-2 Operating rate of imidacloprid technical manufacturers in China, 2011-2015

Figure 3.4-3 CCMP synthesis for imidacloprid production by DCPD route

Figure 3.4-4 Process flow chart of imidacloprid technical by DCPD route

Figure 3.4-5 Monthly average ex-works price of imidacloprid 95% technical in China, Jan. 2011-March 2016

Figure 3.4-6 Monthly average ex-works price of imidacloprid 97% technical in China, Jan. 2014-Dec. 2016

Figure 3.4-7 Monthly ex-works price of imidacloprid 10% WP in China, Jan. 2011-Oct. 2015

Figure 3.4-8 Actual consumption volume of imidacloprid (calculated by 97% technical) in China, 2011-2015

Figure 3.4-9 Actual consumption of imidacloprid (calculated by 97% technical) in China by crop, 2015

Figure 3.4-10 Forecast on output of imidacloprid (calculated by 97% technical) in China, 2016-2020

Figure 3.4-11 Forecast on demand for imidacloprid (calculated by 97% technical) in China, 2016-2020

Figure 3.5-1 Capacity and output of acephate technical in China, 2011-2015

Figure 3.5-2 Isomerization chemical reaction in acephate production in China

Figure 3.5-3 Chemical equation of making acephate, adopting acetic anhydride as acidylating agents

Figure 3.5-4 Chemical equation of making acephate, adopting acetyl chloride acylation as acidylating agents

Figure 3.5-5 Chemical equation of making acephate, adopting acetic acid and phosphorus trichloride as acidylating agents

Figure 3.5-6 Process flow of acephate production

Figure 3.5-7 Annual average ex-works price of acephate 97% technical in China, 2011-2016

Figure 3.5-8 Monthly ex-works price of acephate 97% technical in China, Jan. 2014-Dec. 2016

Figure 3.5-9 Monthly ex-works price of acephate 30% EC in China, Jan. 2014-Oct. 2015

Figure 3.5-10 Actual consumption of acephate (calculated by 97% technical) in China, 2011-2015, tonne

Figure 3.5-11 Actual consumption of acephate (calculated by 97% technical) in China by crop, 2015

Figure 3.5-12 Forecast on output of acephate technical (calculated by 97% technical) in China, 2016-2020

Figure 3.5-13 Forecast on demand for acephate (calculated by 97% technical) in China, 2016-2020

Figure 3.6-1 Capacity and output of thiamethoxam technical in China, 2011-2015

- Figure 3.6-2 Synthetic route of thiamethoxam in China
- Figure 3.6-3 Synthetic route of 2-chloro-5-chloromethylthiazole in China
- Figure 3.6-4 Synthetic route of nitroguanidine in China
- Figure 3.6-5 Synthetic route of 3-methyl-4-nitroiminoperhydro-1,3,5-oxadiazine in China
- Figure 3.6-6 Monthly ex-works price of thiamethoxam 97% technical in China, Jan. 2011-Sept. 2016, USD/t
- Figure 3.6-7 Apparent consumption of thiamethoxam (calculated by 97% technical) in China by application, 2015
- Figure 3.6-8 Forecast on output of thiamethoxam technical in China, 2016-2020
- Figure 3.6-9 Forecast on apparent consumption of thiamethoxam (calculated by 97% technical) in China, 2016-2020
- Figure 3.7-1 Capacity and output of lambda-cyhalothrin technical in China, 2011-H1 2016
- Figure 3.7-2 Annual ex-works price of lambda-cyhalothrin 95% technical in China, 2011-2016
- Figure 3.7-3 Monthly ex-works price of lambda-cyhalothrin 95% technical in China, Jan. 2014-Dec. 2016
- Figure 3.7-4 Actual consumption of lambda-cyhalothrin (calculated by 95% technical) in China, 2011-2015, tonne
- Figure 3.7-5 Actual consumption of lambda-cyhalothrin (calculated by 95% technical) in China by crop, 2015
- Figure 3.7-6 Forecast on output of lambda-cyhalothrin technical in China, 2016-2020, tonne
- Figure 3.7-7 Forecast on demand for lambda-cyhalothrin (calculated by 95% technical) in China, 2016-2020, tonne
- Figure 4.1-1 Output and share of herbicides in China's pesticide industry, 2005-2015
- Figure 4.2-1 Capacity and output of glyphosate technical in China, 2011-H1 2016
- Figure 4.2-2 Production pathways of glyphosate technical in China
- Figure 4.2-3 Output share of glyphosate technical by different routes in China, 2006-2015
- Figure 4.2-4 Monthly ex-works price of glyphosate 95% technical in China, Jan. 2014-Nov. 2016
- Figure 4.2-5 Monthly ex-works price of glyphosate 41% IPA in China, Jan. 2014-Nov. 2016
- Figure 4.2-6 Forecast on demand for glyphosate (calculated by 95% technical) in the world, 2016-2020
- Figure 4.2-7 Forecast on demand for glyphosate (calculated by 95% technical) in China, 2016-2020
- Figure 4.3-1 Capacity and output of acetochlor technical in China, 2011-2015

Figure 4.3-2 Methylene route for acetochlor technical production in China

Figure 4.3-3 Ether route for acetochlor technical production in China

Figure 4.3-4 Annual average ex-works price of acetochlor 92% technical and acetochlor 900g/L EC in China, 2011-2016

Figure 4.3-5 Monthly average ex-works price of acetochlor 92% technical in China, Jan. 2014-Nov. 2016

Figure 4.3-6 Monthly average ex-works price of acetochlor 900g/L EC in China, Feb. 2014-Oct. 2015

Figure 4.3-7 Consumption of acetochlor formulations (calculated by 92% technical) in China by crop, 2015

Figure 4.3-8 Forecast on output of acetochlor technical in China, 2016-2020, tonne

Figure 4.3-9 Forecast on demand for acetochlor (converted to 92% TC) in China, 2016-2020, tonne

Figure 4.4-1 Capacity and output of paraquat TK (calculated by 42% TK) in China, 2008-H1 2016

Figure 4.4-2 Flowchart of AC process for paraquat production

Figure 4.4-3 Chemical principle of MC process for paraquat production

Figure 4.4-4 Ex-works price of paraquat 42% TK and 20% AS in China, 2010-Q1 2016, USD/t

Figure 4.4-5 Monthly ex-works price of paraquat 42% TK in China, Jan. 2014-Nov. 2016

Figure 4.4-6 Monthly ex-works price of paraquat 200g/L AS in China, Jan. 2014-Nov. 2016

Figure 4.4-7 Actual consumption volume and market value of paraquat in China, 2009-Q1 2016, tonne

Figure 4.4-8 Actual consumption of paraquat (calculated by 42% TK) in China by crop, 2015

Figure 4.4-9 Actual consumption of paraquat (calculated by 42% TK) in China by orchard crop, 2015

Figure 4.4-10 China's exports of paraquat, 2010-Q1 2016

Figure 4.4-11 Forecast on output of paraquat (calculated by 42% TK) in China, 2016-2020, tonne

Figure 4.4-12 Forecast on demand for paraquat (calculated by 42% TK) in China, 2016-2020, tonne

Figure 4.5-1 Capacity and output of dicamba technical in China, 2008–H1 2016

Figure 4.5-2 Monthly ex-works price of dicamba 98% technical in China, Jan. 2014–Oct. 2016, USD/t

Figure 4.5-3 Monthly ex-works price of dicamba 48% AS in China, Jan. 2014–Dec. 2015, USD/t

Figure 4.5-4 Actual consumption of dicamba (converted to 98% technical) in China,



2008–H1 2016

Figure 4.5-5 Actual consumption of dicamba (converted to 98% technical) in China by crop, 2015

Figure 4.5-6 Forecast on capacity and output of dicamba technical in China, 2016–2020

Figure 4.5-7 Forecast on global demand for dicamba (converted to 98% technical), 2016–2020

Figure 4.6-1 Capacity and output of glufosinate-ammonium technical in China, 2012-2015

Figure 4.6-2 Monthly export prices of glufosinate-ammonium 95% technical and glufosinate-ammonium 200g/L AS in China, Jan. 2012-July 2016

Figure 4.6-3 Consumption of glufosinate-ammonium (calculated by 95% technical) in China by application field, 2015

Figure 4.6-4 Forecast on output of glufosinate-ammonium (calculated by 95% technical) in China, 2016-2020

Figure 4.6-5 Forecast on demand for glufosinate-ammonium (calculated by 95% technical) in China, 2016-2020

Figure 4.7-1 Capacity and output of 2,4-D technical in China, 2010-H1 2016

Figure 4.7-2 Flowchart of the method of chlorination followed with condensation for synthesizing 2,4-D

Figure 4.7-3 Flowchart of the method of condensation followed with chlorination for synthesizing 2,4-D

Figure 4.7-4 Annual ex-works price of 2,4-D 96% technical in China, 2011-2016

Figure 4.7-5 Monthly ex-works price of 2,4-D 96% technical in China, Jan. 2014-Nov. 2016

Figure 4.7-6 Monthly ex-works price of 2,4-D amine salt 720g/L SL in China, Jan. 2014-Oct. 2015

Figure 4.7-7 Actual consumption volume of 2,4-D in China, 2011–2015

Figure 4.7-8 Consumption of 2,4-D formulations (converted to 96% technical) in China by crop, 2015

Figure 4.7-9 Forecast on output of 2,4-D technical in China, 2016-2020, tonne

Figure 4.7-10 Forecast on demand for 2,4-D (calculated by 96% technical) in China, 2016-2020, tonne

Figure 5.1-1 Output and share of fungicides in China's pesticide industry, 2005-2015

Figure 5.2-1 Capacity and output of mancozeb technical in China, 2011-2015

Figure 5.2-2 Flowchart of mancozeb synthesis in China

Figure 5.2-3 Chemical principle of mancozeb synthesis in China

Figure 5.2-4 Monthly ex-works price of mancozeb 90% technical in China, Jan. 2014-Dec. 2016

Figure 5.2-5 Annual ex-works price of mancozeb technical in China, 2011-2015



Figure 5.2-6 Annual ex-works price of mancozeb 80% WP in China, 2011-2015

Figure 5.2-7 Apparent consumption of mancozeb in China by crop, 2015

Figure 5.2-8 Forecast on output of mancozeb technical (calculated by 85% TC) in China, 2016-2020

Figure 5.2-9 Forecast on demand for mancozeb (calculated by 85% TC) in China, 2016-2020

Figure 5.3-1 Capacity and output of carbendazim technical in China, 2011-2015

Figure 5.3-2 Main chemical reaction in carbendazim production in China

Figure 5.3-3 Flowchart of carbendazim production in China

Figure 5.3-4 Annual ex-work price of carbendazim 98% technical in China, 2011-2015

Figure 5.3-5 Monthly ex-works price of carbendazim 98% technical in China, Jan. 2014-Dec. 2016

Figure 5.3-6 Monthly ex-works price of carbendazim 500g/L SC in China, Jan. 2009-Feb. 2013

Figure 5.3-7 Apparent consumption of carbendazim (converted to 98% technical) in China by crop, 2015

Figure 5.3-8 Forecast on output of carbendazim technical (calculated by 98% technical) in China, 2016-2020

Figure 5.3-9 Forecast on demand for carbendazim (calculated by 98% technical) in China, 2016-2020

Figure 5.4-1 Capacity and output of tebuconazole technical in China, 2011-2015

Figure 5.4-2 Production route of tebuconazole technical in China

Figure 5.4-3 Flowchart of tebuconazole technical production in China

Figure 5.4-4 Annual ex-works price of tebuconazole 97% technical in China, 2011-2015

Figure 5.4-5 Monthly ex-works price of tebuconazole 97% technical in China, Jan. 2014-Nov. 2016

Figure 5.4-6 Monthly ex-works price of tebuconazole 250g/L EC in China, Jan. 2008-Dec. 2012

Figure 5.4-7 Apparent consumption of tebuconazole (calculated by 97% technical) in China by crop, 2015

Figure 5.4-8 Forecast on output of tebuconazole technical (calculated by 97% technical) in China, 2016-2020

Figure 5.4-9 Forecast on demand for tebuconazole (calculated by 97% technical) in China, 2016-2020

Figure 5.5-1 Capacity and output of difenoconazole technical in China, 2011-2015

Figure 5.5-2 Route for producing difenoconazole technical in China

Figure 5.5-3 Flowchart of difenoconazole technical production in China

Figure 5.5-4 Annual ex-works price of difenoconazole 95% technical in China, 2011-2015

Figure 5.5-5 Monthly ex-works price of difenoconazole 95% technical in China, Jan. 2014-Dec. 2016

Figure 5.5-6 Annual ex-works price of difenoconazole 250g/L EC in China, 2011-2015

Figure 5.5-7 Annual ex-works price of difenoconazole 10% WDG in China, 2011-2015

Figure 5.5-8 Apparent consumption of difenoconazole (calculated by 95% technical) in China by crop, 2015

Figure 5.5-9 Forecast on output of difenoconazole technical (calculated by 95% TC) in China, 2016-2020

Figure 5.5-10 Forecast on demand for difenoconazole (calculated by 95% TC) in China, 2016-2020

Figure 5.6-1 Capacity and output of chlorothalonil technical in China, 2011-2015

Figure 5.6-2 Flowchart of chlorothalonil technical production in China

Figure 5.6-3 Catalytic chemical reaction in chlorothalonil production in China

Figure 5.6-4 Replacement chemical reaction in chlorothalonil production in China

Figure 5.6-5 Annual ex-works price of chlorothalonil 98% technical in China, 2011-2015

Figure 5.6-6 Monthly ex-works price of chlorothalonil 98% technical in China, Jan. 2014-Nov. 2016

Figure 5.6-7 Monthly ex-works price of chlorothalonil 75% WP in China, Jan. 2009-Feb. 2013

Figure 5.6-8 Apparent consumption of chlorothalonil (calculated by 98% technical) in China by crop, 2015

Figure 5.6-9 Forecast on output of chlorothalonil technical in China, 2016-2020

Figure 5.6-10 Forecast on demand for chlorothalonil (calculated by 98% TC) in China, 2016-2020

Figure 5.7-1 Capacity and output of azoxystrobin technical in China, 2011-2015

Figure 5.7-2 Route A for producing intermediate used in azoxystrobin technical production in China

Figure 5.7-3 Route B for producing intermediate used in azoxystrobin technical production in China

Figure 5.7-4 Route C for producing intermediate used in azoxystrobin technical production in China

Figure 5.7-5 Process route of azoxystrobin technical production in China

Figure 5.7-6 Annual ex-works price of azoxystrobin technical in China, 2011-2015

Figure 5.7-7 Monthly ex-works price of azoxystrobin 96% technical in China, Jan. 2014-Dec. 2016

Figure 5.7-8 Annual ex-works price of azoxystrobin 25% SC in China, 2011-2015

Figure 5.7-9 Annual ex-works price of azoxystrobin 50% WDG in China, 2011-2015

Figure 5.7-10 Apparent consumption of azoxystrobin (converted to 95% technical) in China by crop, 2015

Figure 5.7-11 Forecast on output of azoxystrobin technical (calculated by 95% technical) in China, 2016-2020

Figure 5.7-12 Forecast on demand (converted to 95% technical) and market value (at ex-works level) of azoxystrobin formulations in China, 2016-2020

Figure 6.1-1 Ownership structure of Nanjing Red Sun Co., Ltd., 2015

Figure 6.2-1 Ownership structure of Zhejiang Wynca Chemical Industry Group Co., Ltd., 2015

Figure 6.3-1 Ownership structure of Jiangsu Yangnong Chemical Co., Ltd., 2015

Figure 6.4-1 Ownership structure of CEFC Anhui International Holding Co., Ltd., 2015

Figure 6.5-1 Ownership structure of Shandong Weifang Rainbow Chemical Co., Ltd., 2015

Figure 6.7-1 Ownership structure of Hubei Sanonda Co., Ltd., 2015

Figure 6.8-1 Ownership structure of Nantong Jiangshan Agrochemical & Chemicals Co., Ltd., 2015

Figure 6.9-1 Ownership structure of Shandong Binnong Technology Co., Ltd., 2015

Figure 6.10-1 Ownership structure of Jiangsu Changlong Agrochemical Co., Ltd., 2015

Figure 6.14-1 Ownership structure of Jiangsu Changqing Agrochemical Co., Ltd., 2015

Figure 6.15-1 Ownership structure of Jiangsu Huifeng Agrochemical Co., Ltd., 2015

Figure 6.16-1 Ownership structure of Lianhe Chemical Technology Co., Ltd., 2015

Figure 6.17-1 Ownership structure of Hunan Haili Chemical Industry Co., Ltd., 2015

Figure 6.18-1 Ownership structure of Jiangsu Good Harvest-Weien Agrochemical Co., Ltd., 2015

Figure 6.20-1 Ownership structure of Lier Chemical Co., Ltd., 2015

Figure 6.21-1 Ownership structure of Anhui Guangxin Agrochemical Co., Ltd., 2015

Figure 6.22-1 Ownership structure of Jiangsu Lanfeng Biochemical Co., Ltd., 2015

Figure 6.23-1 Ownership structure of Limin Chemical Co., Ltd., 2015

Figure 6.24-1 Ownership structure of Jiangsu Sevencontinent Green Chemical Co., Ltd., 2015

## **COMPANIES MENTIONED**

Nanjing Red Sun Co., Ltd.

Zhejiang Wynca Chemical Industry Group Co., Ltd.

Jiangsu Yangnong Chemical Co., Ltd.

CEFC Anhui International Holding Co., Ltd.

Shandong Weifang Rainbow Chemical Co., Ltd.

## I would like to order

Product name: Survey of Pesticide Industry in China

Product link: <https://marketpublishers.com/r/F5ADE1BB49FEN.html>

Price: US\$ 6,480.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/F5ADE1BB49FEN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:  
Last name:  
Email:  
Company:  
Address:  
City:  
Zip code:  
Country:  
Tel:  
Fax:  
Your message:

**\*\*All fields are required**

Customer signature \_\_\_\_\_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970