

II Supply and demand of PGRs in China

II-1 Summary of supply and demand

II-1.1 Supply summary

Up to the end of Mar. 2010, XX companies registered plant growth regulator technical in China, approved by The Institute for Control of Agrochemicals, Ministry of Agriculture (ICAMA), and there have been about XX companies with active production currently, according to CCM's survey.

Production summary (capacity, output, price, output value), 2009

Table II-1.1.1 Production summary of PGRs in China, 2009

Product	Capacity '10, t/a	Output '09, tonnes	A.I. content	Price '09, USD/t	Output value '09, '000 USD
Ethephon	X	X	X	X	X
Paclobutrazol	X	X	X	X	X
Mepiquat chloride	X	X	X	X	X
Gibberellic acid	X	X	X	X	X
Uniconazole	X	X	X	X	X
Thidiazuron	X	X	X	X	X
Chlormequat	X	X	X	X	X
Sodium nitrophenolate	X	X	X	X	X
Brassinolide	X	X	X	X	X
1-Naphthaleneacetic acid	X	X	X	X	X
DA-6	X	X	X	X	X
2,4-D	X	X	X	X	X
Others	X	X	X	X	X
Total	X	X	X	X	X

Source: CCM International

Note: DA-6: diethyl aminoethyl hexanoate

2,4-D capacity and output only refer to that of PGR, that of herbicide is not included.

A. I content means the mainstream active ingredient (A.I.) content produced in China.

Price '09 means the average price in the whole year of 2009.

Total production capacity of PGRs (PGRs) has reached XX t/a in 2010, increasing by about XX t/a compared to 2009, including a new XX t/a production line of paclobutrazol technical of Zhengshi Chemical launched in Dec. 2009. Total output and output value of PGRs were XX tonnes and USD256 million respectively in 2009, both constituting XX of total pesticide output (XX million tonnes) and total output value (XX billion) in China in 2009.

Key manufacturers of PGRs

Total production capacity of PGRs of the top XX large manufacturers has reached XX t/a in 2010, accounting for XX of China's total. And their total output of PGRs was XX tonnes in 2009, constituting XX of domestic PGR output in 2009.

Table II-1.1.2 Key manufacturers of PGR technical in China, 2009

No	Manufacturers	Capacity '10, t/a	Output '09, tonnes	Key products
1		X	X	X
2		X	X	X Chlormequat, Ethephon, Paclobutrazol
3		X	X	X Ethephon
4		X	X	X Sodium nitrophenolate, Paclobutrazol, DA-6, 1-Naphthaleneacetic acid
5		X	X	X Ethephon
6		X	X	X Chlormequat
7		X	X	X Chlormequat, Paclobutrazol
8		X	X	X Sodium nitrophenolate, DA-6
9		X	X	X Paclobutrazol, Uniconazole
10		X	X	X Mepiquat chloride, Thidiazuron
11		X	X	X Mepiquat chloride, 1-Naphthaleneacetic acid
12		X	X	X Paclobutrazol, Uniconazole
13		X	X	X Sodium nitrophenolate, DA-6, 1-Naphthaleneacetic acid
14		X	X	X Paclobutrazol, Uniconazole
15		X	X	X Paclobutrazol
16		X	X	X Paclobutrazol
	Total	X	X	X

Source: CCM International

II-1.2 Demand summary

Though China is one of the largest agriculture planting countries with huge crop output, with the rapid expansion of population and acceleration of the industrialization process, China has undergone food safety and people's health issues. Considering good effects in improving crop yield and quality, PGRs have been widely applied in vegetables, fruits, grain crops and other crops and China has been increasing emphasis on the application of PGRs

Market volume and value, 2005~2009

With the rapid development of Chinese economy and improvement in farmers' income, demand for PGRs keeps stably increasing in the past five years, except in 2008. PGRs demand reached XX tonnes in 2009, up XX compared to XX tonnes in 2005. At the same time,

market value of PGRs amounted to USD210.55 million in 2009, constituting XX of total pesticide market value (XX billion).

II-2 Supply and demand of key products

II-2.1 Ethephon

Manufacturers

According to the survey from CCM, currently there have been X active manufacturers of ethephon technical in China, among which, Jiangsu Anpon, the largest ethephon technical company in China, produced about X tonnes ethephon technical in 2009.

On the whole, the total output of ethephon technical was X tonnes in 2009, compared to X tonnes in 2007, maintaining stable in the past few years.

Table II-2.1.2 Production situation of ethephon technical in China, 2009-2010

No.	Company	Abbreviation	Status '10	Capacity '10, t/a	Output '09, tonne
1		X	X	X	X
2		X	X	X	X
3		X	X	X	X
4		X	X	X	X
5		X	X	X	X
6		X	X	X	X
7		X	X	X	X
8		X	X	X	X
9		X	X	X	X
Total			X	X	X

Source: CCM International

Consumption situation

Share of key players

According to the investigation on production, the total output of ethephon technical was X tonnes in 2009. X is the largest ethephon technical company in China with about X tonnes ethephon technical produced in 2009, accounting for X of the total output.

As one of the largest ethephon production countries in the world, China exports large quantities of ethephon technical. According to CCM's investigation, about X of ethephon technical were exported, mainly to Europe, Australia, America, etc.

Table II-2.1.3 Export situation of ethepthon by A.I. in China, 2009

Company	Export proportion	Export volume, tonnes	Share
	X	X	X
	X	X	X
	X	X	X
	X	X	X
	x	x	x
	X	X	X
	x	x	x
Total			

Source: CCM International