

III-4 Paraquat supply in China

III-4-1 Overall situation of paraquat technical

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✓ Production situation

China's paraquat industry developed fast in recent years with CAGR of [REDACTED] from 2004 to 2008. It is estimated that paraquat technical capacity will reach [REDACTED] t/a in 2009, with output of [REDACTED] tonnes in 2008.

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Figure III-4-1-1 Output of paraquat technical in China, 2004-2008

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Table III-4-1-1 Basic information of paraquat technical producers, 2009

No.	English name	Abbreviation	Location	Status '09
1	[REDACTED]	[REDACTED]	Jiangsu	Active
2	[REDACTED]	[REDACTED]	[REDACTED]	Active
3	[REDACTED]	[REDACTED]	[REDACTED]	Active
4	[REDACTED]	[REDACTED]	[REDACTED]	Active
5	[REDACTED]	[REDACTED]	[REDACTED]	Active
6	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
7	[REDACTED]	[REDACTED]	Shandong	[REDACTED]
8	[REDACTED]	[REDACTED]	Zhejiang	[REDACTED]
9	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
10	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
11	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
12	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
13	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
14	[REDACTED]	[REDACTED]	[REDACTED]	stopped

Source: CCM International

Table III-4-1-2 Paraquat technical output breakdown by producers, 2006 to H1 2009

No.	Abbr.	Capacity '09, t/a	Output, tonne			
			H1 2009	2008	2007	2006
1	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2	[REDACTED]	15,000	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
3	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
4	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
5	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
6	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
7	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

8				2,500		
9						
10						
11						
12						
13						
14						
Total						

Source: CCM International

Paraquat technical capacity in China has greatly exceeded the demand, thus leading to low operating rate of less than █% in 2008.

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Table III-4-1-3 Producers who have stopped paraquat production as of Aug. 2009

No.	Company	Location	time
1			Stopped in 2007
2			
3			
4		Shanghai	
5			
6			

Source: CCM International

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III-4-2 Overall situation of paraquat formulation

China is also the largest paraquat formulation supplier in the world. Generally, the most common paraquat formulation is paraquat AS 20% (calculated by weight-to-volume ratio) and paraquat AS 25%. In this report, we mainly discuss paraquat AS 20%.

➤ Production situation

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Figure III-4-2-1 Output of paraquat formulation in China, 2003 to 2008

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➤ Manufacturers

Table III-4-2-1 Major paraquat formulation producers in China, 2008

No.	English name	Abbreviation	Location	Output '08
1				

2				
3				
4				
5				
6				
7				
8				
9				
10				
11				800
12				800
13				
14				
15				
16				
17				
18				
19				
20				
	Total		-	

Source: CCM International

III-5 Trade of paraquat in China

III-5-1 Paraquat price and its influencing factors

➤ Factors affecting the price

✓ Raw material

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Figure III-5-1-1 Price of pyridine and paraquat in China, 2004 to 2008

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✓ Supply and demand

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➤ Price change of paraquat

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III-5-2 Import and export of paraquat technical and formulation

Figure III-5-2-5 Export volume and price of paraquat, H1 2009

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Table III-5-2-1 Export volume of top four producers(tonne)

No.	Producers	2006		2007		2008	
		Technical	20% AS	Technical	20% AS	Technical	20% AS
1					621.470		
2							
3							
4							
Total							

Source: CCM International

Table III-5-2-4 Main exporters of paraquat, 2008(Quantity: tonne; Price: USD/kg)

No.	Exporter	Technical		20% AS		Value
		Quantity	Price	Quantity	Price	
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11				1,146.835		
12						
13		381.850				
14						
15						
16			3.21			
17						1,463,439
18					2.75	
19					2.70	
20						
Total						

Source: CCM International

Table III-5-2-5 Main exporters of paraquat, H1 2009(Quantity: tonne; Price: USD/kg)

No.	Exporter	Technical		20% AS		Value
		Quantity	Price	Quantity	Price	
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13			2.44			
14		250.940				
15					2.20	
16					1.97	
17						
18						
19						
20				138.400		930,896
21						
22						
Total						

Source: CCM International

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III-6 Demand for paraquat in China

III-6-1 Consumption pattern of paraquat technical

China's paraquat consumption has been increasing in recent few years with the rising domestic demand. In China, over ■% of paraquat technical is exported, and the rest is used to produce paraquat formulations, mainly paraquat AS 20%. The domestic consumption of paraquat (converted to paraquat technical) has increased from ■ tonnes in 2004 to ■ tonnes in 2008 with CAGR of ■%.

Figure III-6-1-1 Consumption pattern of paraquat technical in China, 2004-2009

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III-6-2 Application of paraquat formulations

Paraquat is used to control broad leave weeds and grasses, but less effective on deep rooted plants. It does not harm mature bark, and is thus widely used for weed control in fruit orchards and crops in zero tillage land, including corn, rubber, bean, cane and tea. It is used for weed control on non-crop land and can be used as a defoliant for cotton before harvest.

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Figure III-6-2-1 Consumption structure of paraquat AS 20% in China, 2008

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Figure III-6-2-2 Consumption structure of paraquat AS 20%, 2006-2008

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➤ Orchard

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Figure III-6-2-3 Consumption structure of paraquat AS 20% in orchards in China, 2008

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Figure III-6.2-4 Geographical distribution of main orchards in China, 2008

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Figure III-6-2-5 Orchard area in China, 1997-2008

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✓ Banana

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✓ Apple plantation

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➤ Corn

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Figure III-6-2-6 Corn planting area in China, 1997 to 2008

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