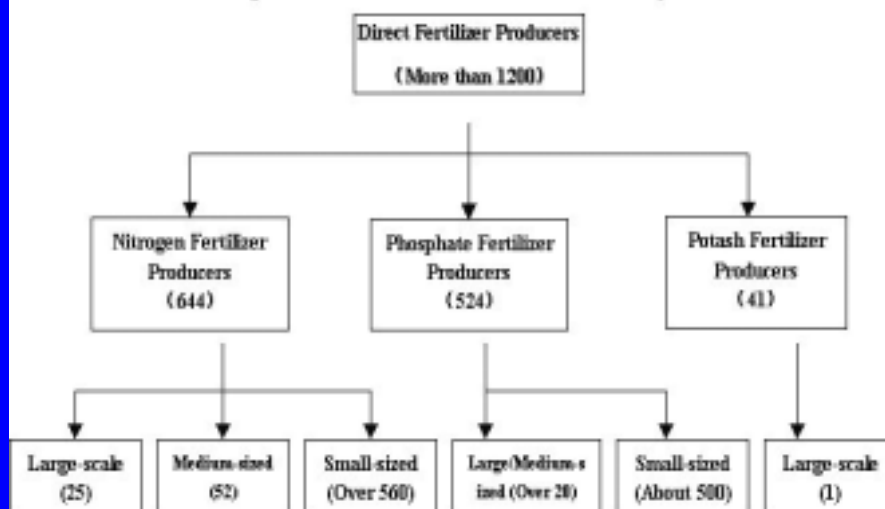


The Current Situation and Prospect of China's Phosphate Fertilizer and Compound Fertilizer Market

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CNCIC CHEMDATA CO., LTD.

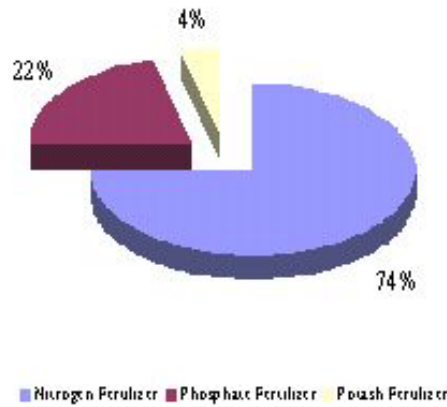
The General Situation of China's Fertilizer Industry

Figure 1 The Structure of China's Fertilizer Industry



- In 2001, China's fertilizer output reached 33.965 Mt.

Figure 2 The Structure of China's Fertilizer Production in 2001



- In 2001, on nitrogen fertilizer, the urea output reached 14.548 Mt.

Figure 4 The Nitrogen Proportion of Fertilizers in 2001 in China

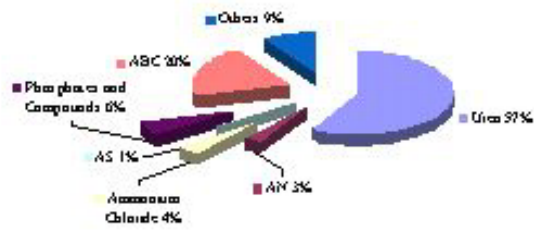
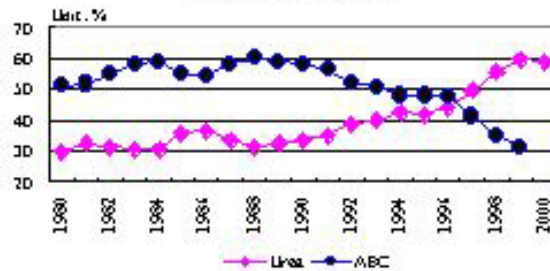
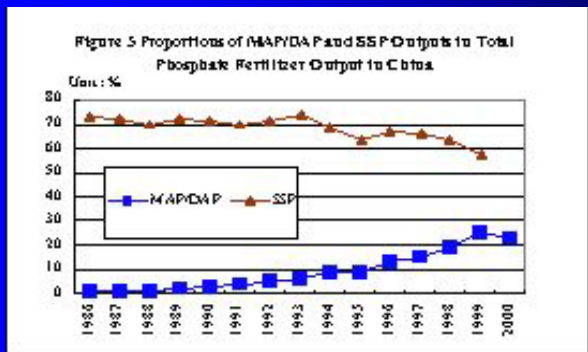
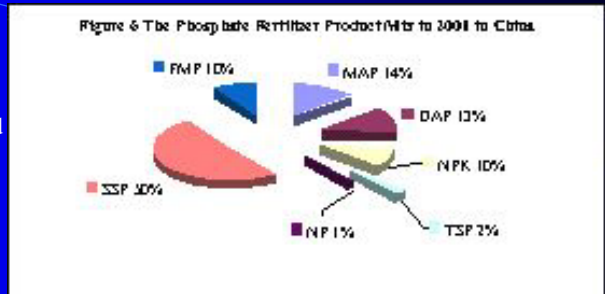


Figure 3 Proportions of Urea and ABC Outputs to Total Nitrogen Fertilizer Output to China



- In 2001, on phosphate fertilizer, the output reached 7.394 Mt.

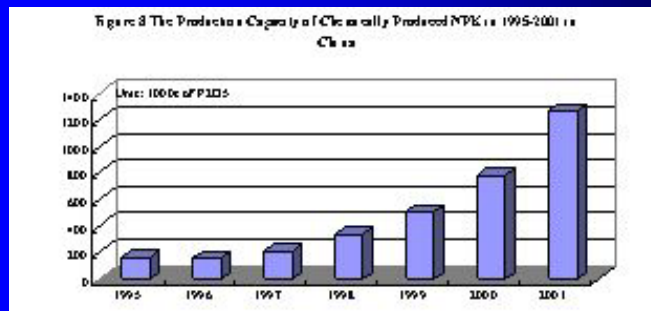
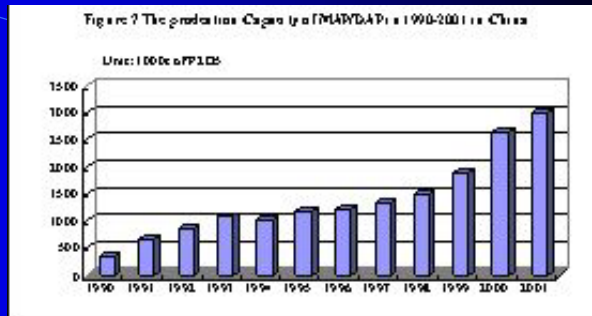


The Current Situation and Prospect of China's High-analysis Phosphate and Compound Fertilizer Market

The production capacity increased fast but the percentage of utilization of capacity was not high.

By the end of 2001, the production capacity of chemically produced phosphate and compound fertilizers reached 17.30 Mt. The proportion of the production capacity of high-analysis phosphate and compound fertilizers in total phosphate fertilizer capacity went up to 48% from 10% of ten years ago.

- During 1991 to 2001, MAP/DAP capacity rose at an annual average increase rate of 17.7%. The MAP/DAP capacity increased to 3.40 Mt in 2001.



The production capacity of chemically produced NPK went up to 1.26 Mt at an annual average increase rate of 35.5%.

• Table 1 The Main Additional Production Capacities of High-analysis Phosphate and Compound Fertilizers in Recent Two Years in China

Unit: 1000t of product

Province	Enterprises	Additional Capacity (1000t of product)	Product
Hebei	Sino-Arab Chemical Fertilizers Co Ltd	700	NPK
Jiangsu	Jiangsu Ruihe Fertilizer Co Ltd	40	MAP
Anhui	Xuanzhou Sulfuric Acid Plant	40	MAP
	Anhui Liuguo Chemical Industry Stock Co Ltd	240	DAP
Shandong	Laizhou Jinxing Chemical Co Ltd	100	SOP-NPK
	Qingdao Changhua Group	100	SOP-NPK
	Tianli Biochemical Industry Co Ltd	100	SOP-NPK
	Zibo Bofeng Compound Plant	100	SOP-NPK
	Anqiu Aobao Chemical Co Ltd	100	SOP-NPK
Hubei	Hubei Xiangyun Chemical Holding Co	80	MAP
	Xiangfan Inorganic Chemical Plant General	30	MAP
Chongqing	Win-win Group Nanchuan Wefeng Chemical Plant General	40	MAP
Sichuan	Sichuan Shihua Holding Co Ltd	50	MAP
	Sichuan Hongda Holding Co Ltd Shihua Co	60	MAP
	Sichuan Shifang Yingfeng Industry Co Ltd	50	MAP
	Sichuan Sulfuric Acid Plant	60	MAP
	Junhe Phosphate Mine Chemical Plant	30	MAP
Guizhou	Guizhou Xiyang Fertilizer Industry Co Ltd	40	SOP-NPK
Yunnan	Yunnan Phosphate Fertilizer Plant	30	MAP
		50	TSP
	Yunnan Tree-Circle Sinochem Cargill Fertilizer Co	600	DAP

• **Table 2 Production and Capacity of Chemically Produced Phosphate and Compound Fertilizers in 2001 in China**

	MAP	DAP	NPK	TSP	NP	Total
Capacity	3630	2760	8510	1450	1050	17400
Production	2193	2134	4204	396	863	9790
Proportion of the production in capacity (%)	60.4	77.3	49.4	27.3	82.2	56.3

Some facilities with a total capacity of 900,000t of MAP stopped running in 2001 because of fund shortage, among which some facilities have stopped production for many years due to external factors and cannot resume production any more, some are waiting for bankruptcy or being merged or rented by other enterprises due to market and fund reasons in recent years but they are able to restore production. In addition, there is still a capacity of around 370,000t of NPK unused in China. Besides, the TSP production in Hubei Jingxiang Chemical Group Co Ltd still has not reached its full capacity of 560,000t up to now.

• **Table 3 Production and Capacity of Chemically Produced Phosphate and Compound Fertilizers in 2001 in China**

Unit:1000 tons of product

	MAP	DAP	NPK	TSP	NP	Total
Capacity	3630	2760	8510	1450	1050	17400
Production	2193	2134	4204	396	863	9790
Proportion of the production in capacity(%)	60.4	77.3	49.4	27.3	82.2	63

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- The potential is great in China's phosphate and compound fertilizer market

Table 4 The Phosphate Fertilizer Demand in Raising FEP Content in Plowland in 2000-2010 in China

FEP content (mg/kg)	Sample number	Proportion (%)	Average FEP content (mg/kg)	Plowland area (1m hectares)	Demand (%P ₂ O ₅) (1000t)
>40	46	3.37	55.16	4.35	0
25~40	86	6.30	31.74	8.14	0
20~25	92	6.74	22.79	8.71	0
15~20	172	12.60	17.79	16.28	892
10~15	319	23.37	12.51	30.19	4562
5~10	427	31.28	7.32	40.41	10377
<5	223	16.34	3.18	21.11	7188
Total	1365	100	12.93	129.2	23020

Table 5 The Estimated Figure for Chinese Phosphate Fertilizer Demand and Supply in 2005

Unit: 1000t of P₂O₅

Demand for raising FEP content in soil	2302
Demand for keeping reasonable FEP content in soil	2720
Demand for complementing losses brought about by crops	8680
Total demand	13300
Supply from organic fertilizer	3000
Supply from chemical fertilizer	10300
Supply from phosphate and compound fertilizer	6180
Supply from home-made phosphates and compounds	4540
Supply from imported phosphates and compounds	1640

Based on the increase rates of apparent consumption of high-analysis phosphate and compound fertilizers in 1997-2001, the development of new projects, market factors and WTO entry impacts, the apparent consumption of Chinese high-analysis phosphate and compound fertilizers in 2005 is projected as shown in Table 6.

Table 6 Forecast on Supply and Demand for Phosphate and Compound Fertilizers within 5 Years in China
Unit: 1000t of P₂O₅

	2001	2002	2003	2004	2005
Production					
NP	99	105	105	105	105
DAP	976	1152	1359	1452	1635
MAP	1005	1173	1369	1450	1615
NPK(Chemical)	707	968	1017	1291	1405
TSP	177	177	217	227	237
Total	2964	3575	4067	4525	4997
Imports					
NP	3.5	12	13	13	14
DAP	1514	1610	1510	1410	1410
MAP	7.6	9	15	15	15
NPK(Chemical)	339	300	225	225	200
TSP	0	0	0	0	0
Total	1864	1931	1763	1663	1639
Exports					
NP	0.6	0.4	0.4	0.5	0.5
DAP	208	207	230	276	299
MAP	48	32	45	45	45
NPK(Chemical)	17	23	30	38	45
TSP/SSP	99	110	88	88	110
Total	372.6	372.4	393.4	447.5	499.5
Apparent Consumption					
NP	101.9	116.6	117.6	117.5	118.5
DAP	2282	2555	2639	2586	2746
MAP	964.6	1150	1339	1420	1585
NP (Chemical)	1029	1245	1212	1478	1560
TSP/SSP	78	67	129	139	127
Total	4455.4	5133.6	5436.6	5740.5	6136.5

Conclusion

The production capacity of high-analysis phosphate and compound fertilizers will continue to go up in following 5-10 years in China.

Table 7 Fertilizer Import Quota after China's WTO Entry

Unit: 1m tonnes of product

	Starting Quota	Annual Increase Rate	Five Years Later
Urea	1.3	20%	3.3
DAP	5.4	5%	6.9
NPK	2.7	5%	3.5
Total	9.4	7.8%	13.7

The current phosphate and compound fertilizer supply cannot meet the requirement from China's agriculture sector.

The current phosphate and compound fertilizer production capacity can only meet 47% of the total requirement. China still needs to import high-analysis phosphate and compound fertilizers for a long period of time.



The End

Thank You!