



Is China a “Mature” Fertilizer Market? Implications on the Chinese and Global Fertilizer Markets

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Drivers of Grain Production

- **Food Security** ⇔ **Self Sufficiency on Grains**
- **Self Sufficiency (95%) on Grains** ⇔ **Self Sufficiency on Fertilizers**
- **Social Harmony** ⇔ **Reduce Wealth Gap between Urban and Rural Population**
i.e. Increase average rural income



Purpose of fertilizer industry is to provide sufficient quantities of fertilizers at affordable prices for food production



Decade of Changes

Million Tonnes (Nutrients)	Actual Production		Production Capacity		Imports		Exports		Consumption	
	1998	2008	1998	2008	1998	2008	1998	2008	1998	2008
Nitrogen	22.7	43.3	28.7	49.6	1.4	0.1	0.1	2.7	24.4	39.8
Phosphate	6.9	12.6	8.5	18.4	3.0	0.1	0.2	1.4	9.7	11.1
Potash	0.5	2.8	0.6	3.1	3.5	3.3	0.2	0.1	3.6	6.3
NPK (Product)	22.3	51.8	N.A	200	8.1	0.6	0.2	2.8	29.9	49.7

Not mature yet. Rapid changes in past decade.
Policies, industry and market still evolving.
Largest consumer and producer of fertilizers.

Production Growth

Million tonnes (Product)	Production	
	1998	2008
Nitrogen	78	137.60
Phosphate	42.3 (year 2001)	46.8
Potash	0.851	4.69
NPK	22.3	51.8
Import/Export	23.57/1.16	6.68/11.89

Product tonnages are huge. Large volumes of low analysis fertilizers.
Implications on transportation and distribution.

Capacities Growth

Million tonnes (Product)	Capacities	
	1998	2008
Urea Production Capacity	28.6	61
DAP/MAP Production Capacity	N.A.	13/14
Potash Production Capacity	1	5.2
NPK Production Capacity	N.A.	200

Huge and rapid growth in capacities for N and P.
Over capacities except for potash.

Production and Distribution

Million tonnes (Nutrients)	1998	2008
# of N producers	893	719
Production of N from top 15 producers	<4	7.99
# of P producers	600	558
Production of P from top 3 producers	<0.5	1.7
# of K producers	<5	58
Production of K from top 2 producers	<0.2	1.6
# of domestic distributors	1	>3000

Consolidation in N & P production but
fragmentation in domestic distribution

Demand Growth for Fertilizers

- **Positive**

- Population growth
- Demand for a better diet
- Growth in commercial farming

- **Negative**

- Poor farming economics for grains
- Slow adoption of scientific farming / balanced fertilization by majority of farmers
- Aspects of industry structure e.g. excess NPK capacity
- Resource limitation: arable land, water



**Demand growth led by N then P and K.
Demand growth unlikely to absorb excess capacities.**

Outlook for Chinese Fertilizer Market & Industry

- **Government will continue to influence to achieve policy objectives**
- **Over capacities will worsen with questionable prospects for significant resolution**
- **Consolidation will continue but with limited impact on overall efficiency**
- **Demand growth but still some way from balanced and scientific fertilization**
- **Grain crop farmers continue to be risk averse**
- **Supply risk for raw materials e.g. gas, coal**
- **Continue to be dominated by local companies**
- **Continue to operate in semi-island mode**

Implications on Chinese Market

- **Overcapacities**
 - Return on capital /Non performing loans
- **Government subsidies mask true competitiveness**
- **Consolidation continues but with little impact on excess capacities**
- **Likely to continue in semi-island mode**


Tough operating environment

Implications on Global Market

- **Excess capacities and export policy impact on global supply dynamics**
- **Demands drive up costs of raw materials for global market**
- **Demand for potash impact on global supply dynamics and future investments**
- **Outbound investments for raw materials (gas and potash)**


Despite semi-island mode, strong connection and increasing impact on global market