



Phosphate Primer and Market Outlook

Recalibration of the Phosphate Market

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These risks and uncertainties include but are not limited to the predictability of fertilizer, raw material, energy and transportation markets subject to competitive market pressures; changes in foreign currency and exchange rates; international trade risks; changes in governmental policy, changes in environmental and other governmental regulation; adverse weather conditions affecting operations in central Florida or the Gulf Coast of the United States, including potential hurricanes or excess rainfall; actual costs of asset retirement, environmental remediation, reclamation and other environmental regulation differing from management’s current estimates; accidents and other disruptions involving our operations, including brine inflows at our Esterhazy, Saskatchewan potash mine and other potential mine fires, floods, explosions, seismic events or releases of hazardous or volatile chemicals, as well as other risks and uncertainties reported from time to time in The Mosaic Company’s reports filed with the Securities and Exchange Commission. Actual results may differ from those set forth in the forward-looking statements.



Topics

- **Phosphate Primer**
 - ⇒ Crop nutrient and phosphate market overviews
 - ⇒ Key or unique features of the phosphate market
- **Recalibration of the Phosphate Market**
 - ⇒ The “Perfect Storm”
 - ✓ Global financial crisis
 - ✓ Collapse of raw materials costs
 - ✓ Large distribution pipeline stocks
 - ✓ Late North American fall application season
 - ✓ Stronger US\$
 - ✓ Lower Chinese export tax Dec 1-Jan 31
 - ⇒ Consequences
- **Where is the Phosphate Market Headed from Here?**



Crop nutrient overview

- Crop nutrients are plant food
- 16 chemical elements are required for plant growth
- Limiting factor principle

| | | Macro | | Micro | |
|----------|--|----------------|------------------|-------|------------|
| | | <u>Primary</u> | <u>Secondary</u> | Zn | Zinc |
| | | N Nitrogen | Ca Calcium | Mn | Manganese |
| | | P Phosphate | Mg Magnesium | Fe | Iron |
| | | K Potassium | S Sulfur | Cu | Copper |
| Carbon | | | | Mo | Molybdenum |
| Hydrogen | | | | B | Boron |
| Oxygen | | | | Cl | Chlorine |



Crop nutrient overview

- Each nutrient market is a separate and unique market
 - ⇒ Common demand drivers – derived demand
 - ⇒ Significantly different supply drivers
 - ✓ Natural resources/raw materials
 - ✓ Location of resources
 - ✓ Technological processes
- Market characteristics
 - ⇒ Global
 - ⇒ Commodity based
 - ⇒ Cyclical

| World Nutrient and Grain Trade in 2007 (Million Metric Tonnes) | | | |
|---|-----------|---------------|--------------------------------|
| | World Use | Total Exports | Exports as a Percent of Use |
| Coarse Grain | 1,066.3 | 123.3 | 11.6 |
| Wheat | 615.4 | 114.8 | 18.7 |
| Rice | 422.7 | 30.4 | 7.2 |
| Total Grain | 2,104.4 | 268.5 | 12.8 |
| Nitrogen (N) | 100.0 | 42.8 | 42.8 |
| Phosphate (P ₂ O ₅) | 40.1 | 15.2 | 37.9 |
| Potash (K ₂ O) | 29.3 | 22.7 | 77.5 |
| Total Nutrients | 169.4 | 80.7 | 47.6 |

Sources: USDA, World Agricultural Supply and Demand Estimates (October 2008), International Fertilizer Industry Association (IFA) and Mosaic



Phosphate market overview

- Natural resources/raw materials required for production
 - ⇒ Phosphate rock (mineral ore)
 - ⇒ Sulphur
 - ⇒ Ammonia
- Energy intensive production
- Main products
 - ⇒ Diammonium phosphate (DAP – 18-46-0)
 - ⇒ Monoammonium phosphate (MAP – 11-52-0)
 - ⇒ Triple superphosphate (TSP – 0-46-0)
 - ⇒ Single superphosphate (SSP -- 0-22-0)
- Leading producers: China, USA, Morocco/North Africa, Russia, Mideast
- Global use 2007/08: ~ 40 million tonnes P_2O_5



Key or unique features of the phosphate market

- A processing margin – a phosphate stripping margin?
 - ⇒ Soybean processor crushing margin
 - ⇒ Refiner cracking margin
- Non-integrated production
 - ⇒ Operations that buy rock, sulphur and ammonia or acid and ammonia
 - ⇒ Account for about one-third of finished phosphate production
 - ⇒ Typically high cost producers
- Price drivers
 - ⇒ Rock and acid prices paid by non-integrated producers
 - ⇒ Energy, sulphur and ammonia costs (cost push drivers)
 - ⇒ Agricultural commodity prices (demand pull drivers)
- “It’s the Rock”



Key or unique features of the phosphate market

■ Long and large supply chain or distribution pipeline

⇒ Production

- ✓ Located near rock or sulphur and ammonia
- ✓ Operates 24-7-365

⇒ Farm application

- ✓ One or two short application windows
- ✓ Post-harvest (~ 40% in the United States)
- ✓ Pre-plant/side dress (~ 60% in the United States)

■ Pipeline flow

⇒ Regular flow required to:

- ✓ Have product in place when farmers want to apply it
- ✓ Keep mines and plants running 24-7-365

⇒ Flow impacted by:

- ✓ Supply/demand changes
- ✓ Price expectations
- ✓ Weather



Topics

- Phosphate Primer

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- ⇒ Key/unique features of the phosphate market

- Recalibration of the Phosphate Market

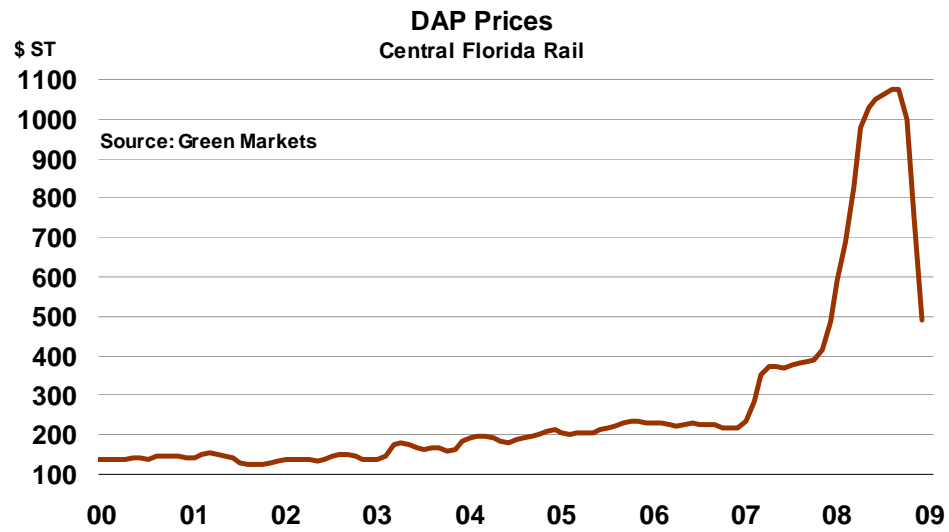
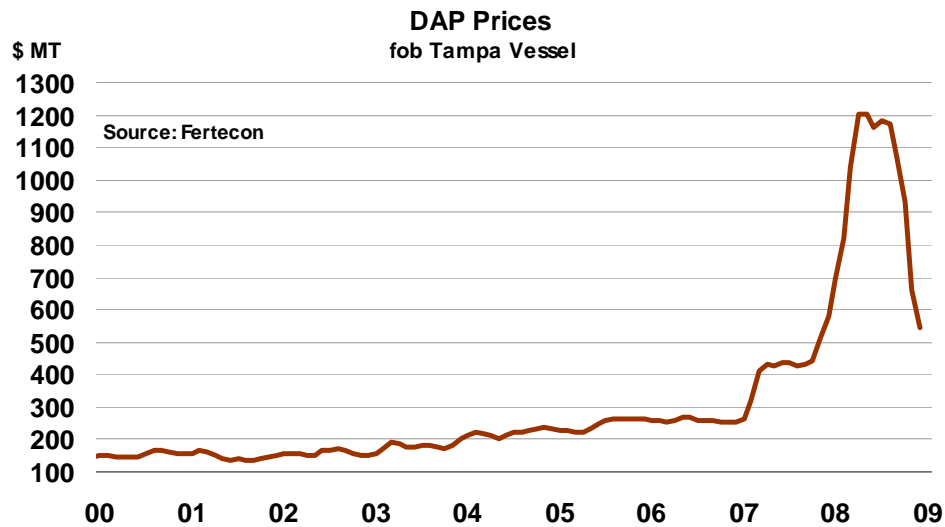
- ⇒ The “Perfect Storm”
 - ✓ Global financial crisis
 - ✓ Collapse of raw materials costs
 - ✓ Large distribution pipeline stocks
 - ✓ Late North American fall application season
 - ✓ Stronger US\$
 - ✓ Lower Chinese export tax Dec 1-Jan 31
- ⇒ Consequences

- Where is the Phosphate Market Headed from Here?



Recalibration of the phosphate market

Diammonium Phosphate Prices



The “Perfect Storm”

■ Impact of the global financial crisis

⇒ Credit constraints limit sales in some regions

⇒ Commodity sell-off erodes farm economics and nutrient demand

- ✓ A rush to liquidity

- ✓ The linkage to oil

⇒ Slow down in world economic growth

- ✓ Impact on grain and oilseed demand

- ✓ Impact on energy demand and prices

- Lower corn prices

- Lower biofuels prices

- Lower operating and raw materials costs

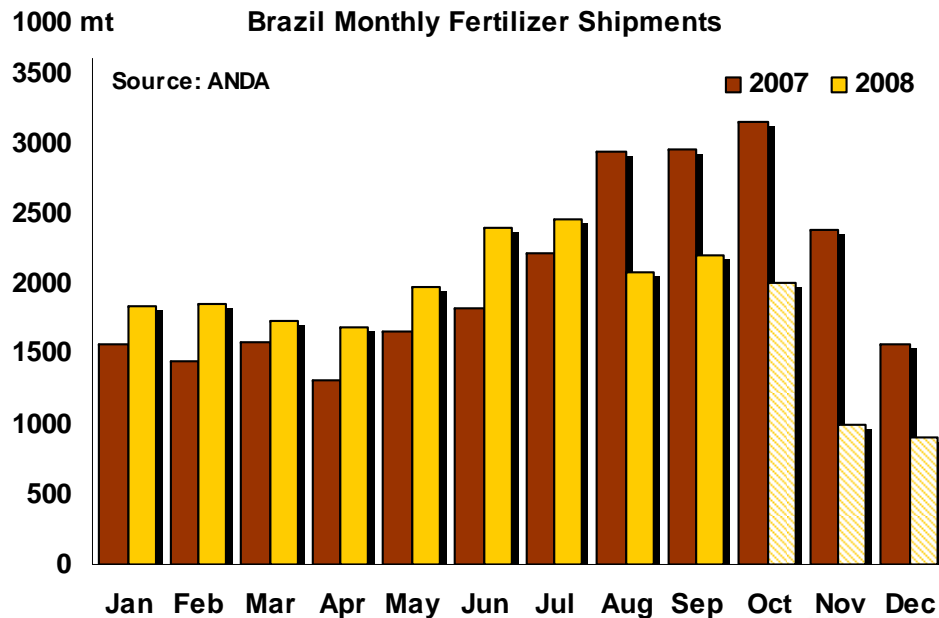
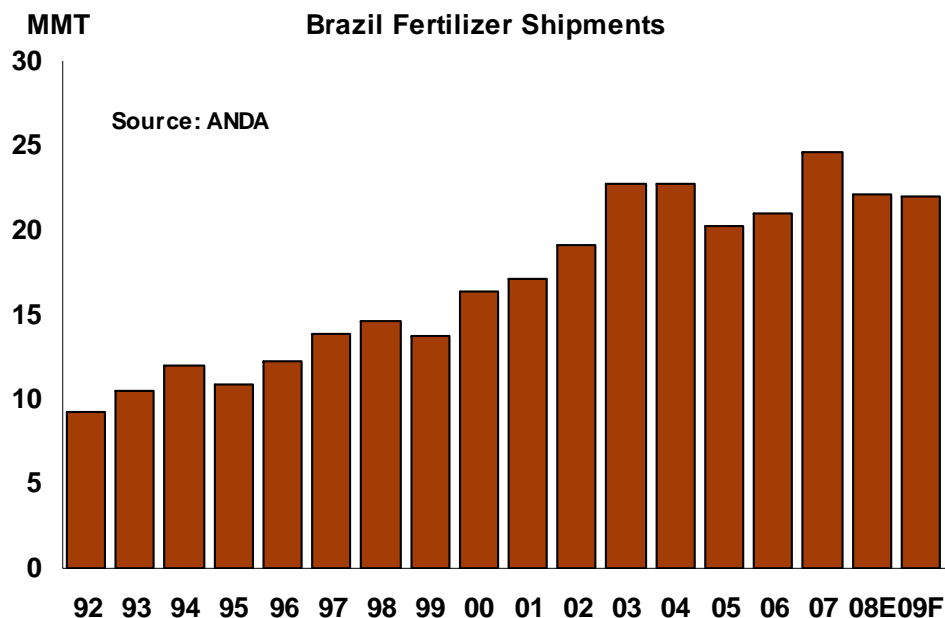
- Lower freight rates



Credit constraints limit sales in some regions

■ Brazil

- ⇒ 2008 fertilizer sales forecasts lowered from ~26 to ~22 million tonnes
- ⇒ 2008 fertilizer sales decline 10% from 24.6 million tonnes in 2007
- ⇒ 2009 prospects flat based on today's farm economics

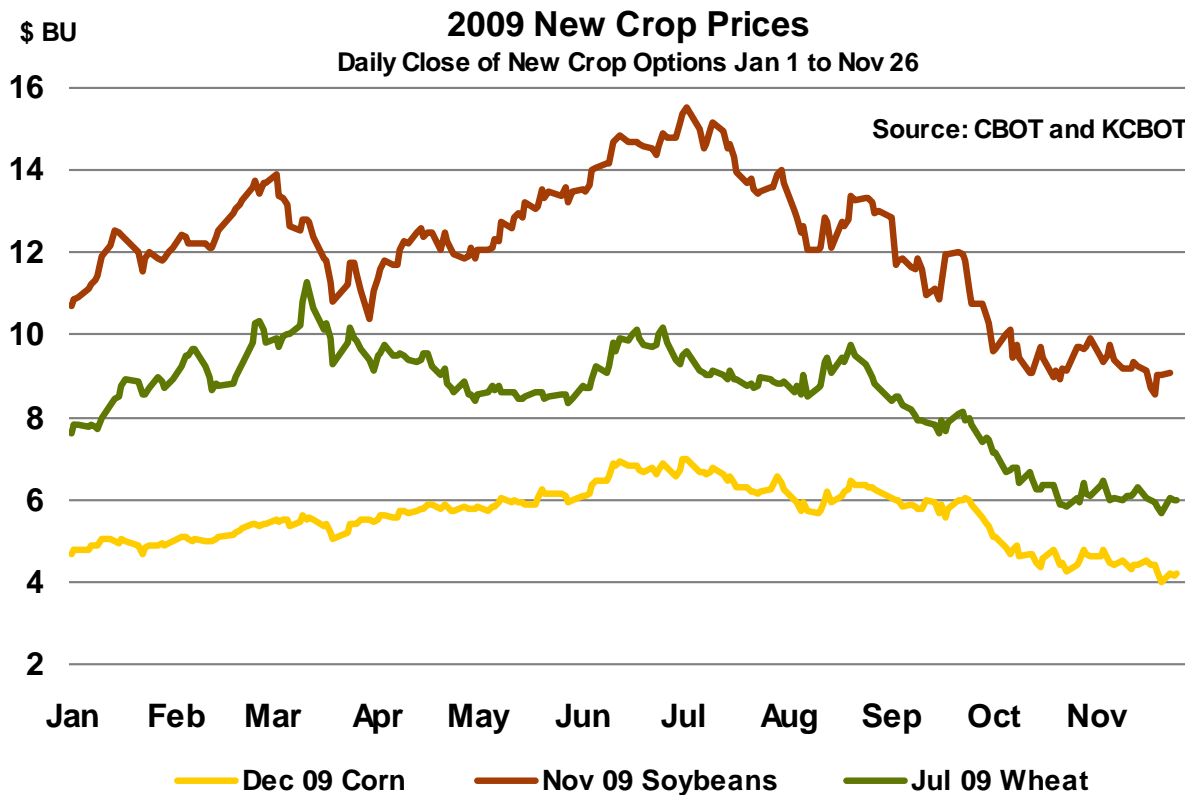


Commodity sell-off erodes farm economics and nutrient demand

■ Agricultural commodity sell-off

⇒ A rush to liquidity

⇒ The linkage to oil



Commodity sell-off erodes farm economics and nutrient demand

■ The linkage to oil: the case of corn

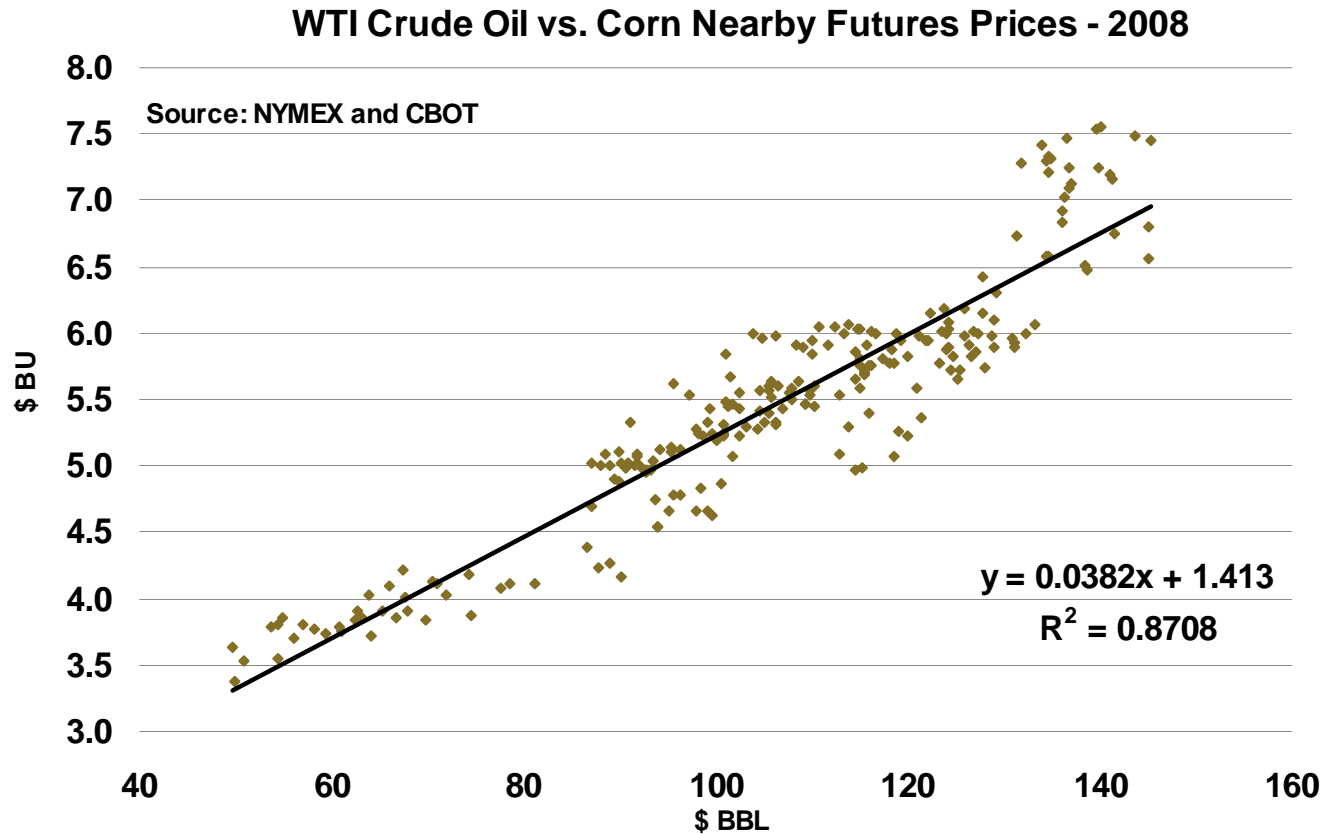
- ⇒ Corn demand for U.S. ethanol production sets market price
- ⇒ Key drivers of corn prices are the price of oil and exchange rates
- ⇒ Strong growth & weak dollar cause oil prices to increase (and vice-versa)
- ⇒ Higher oil prices boosts U.S. ethanol economics/production (and vice-versa)
- ⇒ Higher ethanol production increases corn demand (and vice versa)
- ⇒ Higher corn demand increases crop nutrient demand (and vice versa)
- ⇒ Traditional drivers do not matter (very much)
 - ✓ Weather
 - ✓ Population growth
 - ✓ Per capital income growth

■ Assessment

- ⇒ All drivers matter
- ⇒ Agricultural fundamentals continue to look rock solid

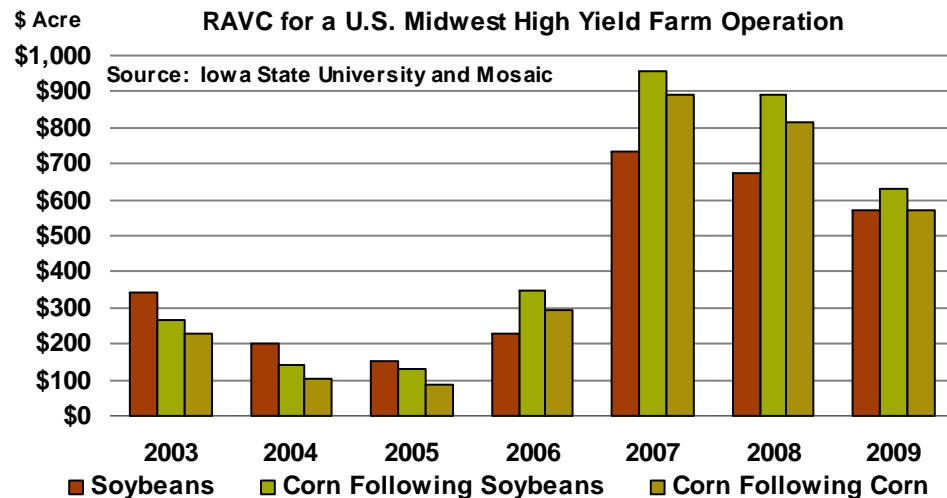
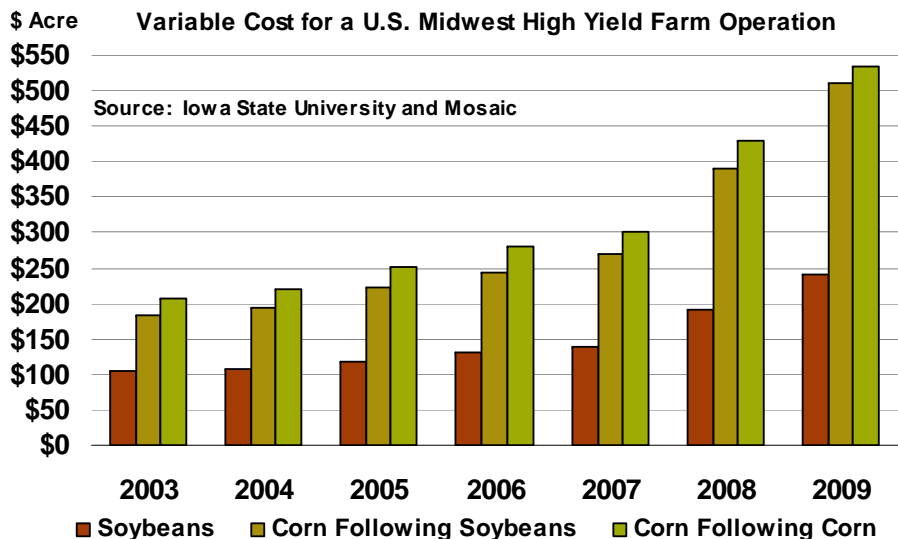


The linkage to oil: the case of corn



Commodity sell-off erodes farm economics and nutrient demand

Farm Economics Estimates – July 1, 2008



2009 Key Cost Assumptions

| | |
|-------------------------|---------|
| Diesel (\$ gal) | \$ 4.00 |
| Seed 3x Stack (\$ bag) | \$ 300 |
| Crop Nutrients (\$ ton) | |
| Ammonia | \$ 975 |
| DAP | \$1185 |
| MOP | \$ 885 |

Key Price Assumptions

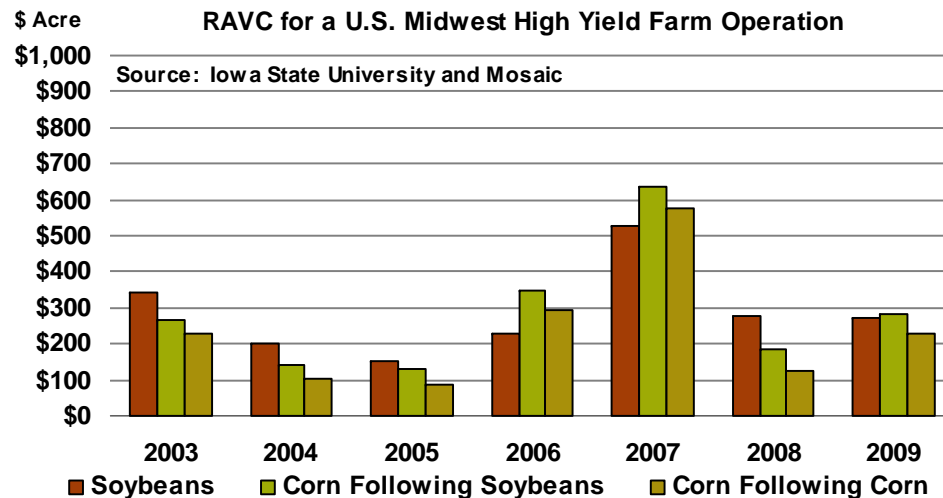
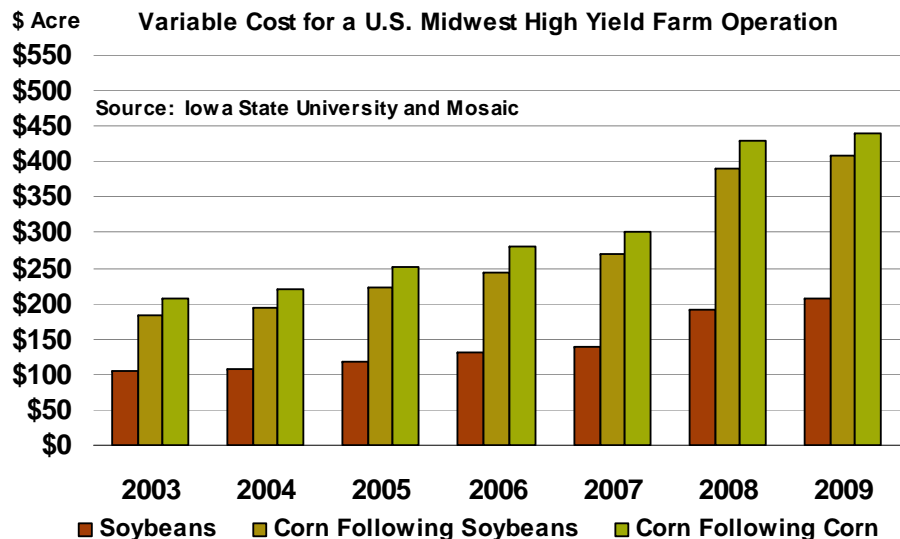
| \$ bu | 2007 | 2008 | 2009 |
|----------|---------|---------|---------|
| Corn | \$7.20 | \$7.52 | \$6.73 |
| Soybeans | \$16.28 | \$16.10 | \$15.15 |

Note: Assumes 2007 crop was sold at the nearby price on July 1 and the 2008 and 2009 crops were sold at the new crop prices on July 1



Commodity sell-off erodes farm economics and nutrient demand

Farm Economics Estimates – December 1, 2008



2009 Key Cost Assumptions

| | |
|-------------------------|---------|
| Diesel (\$ gal) | \$ 3.00 |
| Seed 3x Stack (\$ bag) | \$ 300 |
| Crop Nutrients (\$ ton) | |
| Ammonia | \$ 565 |
| DAP | \$ 600 |
| MOP | \$ 860 |

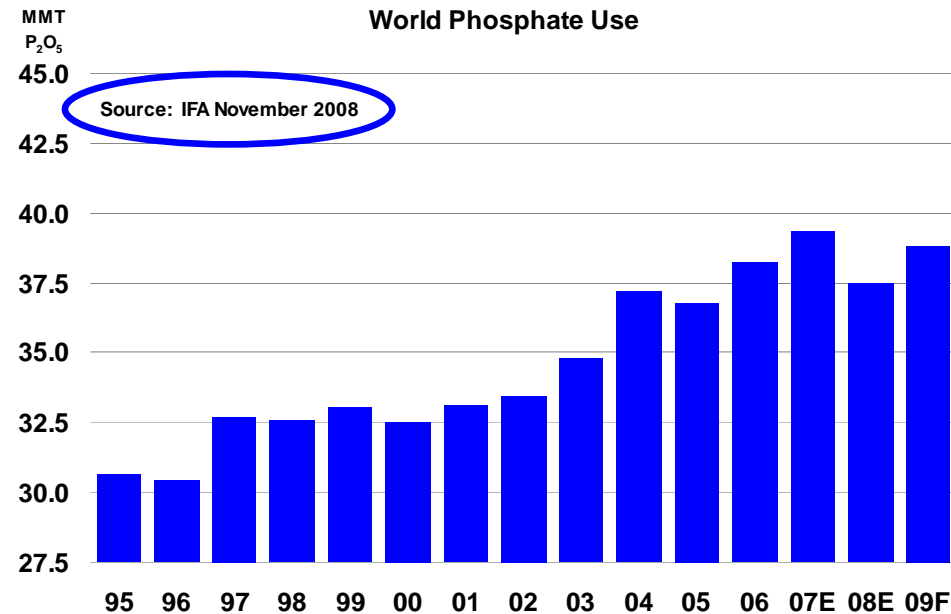
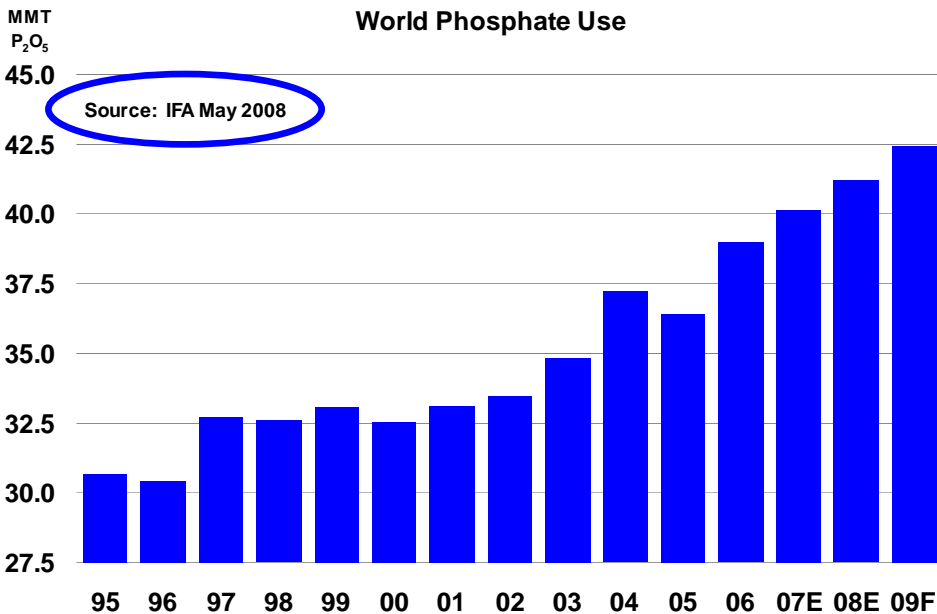
Key Price Assumptions

| \$ bu | 2007 | 2008 | 2009 |
|----------|---------|--------|--------|
| Corn | \$5.02 | \$3.47 | \$4.43 |
| Soybeans | \$12.10 | \$8.60 | \$8.85 |

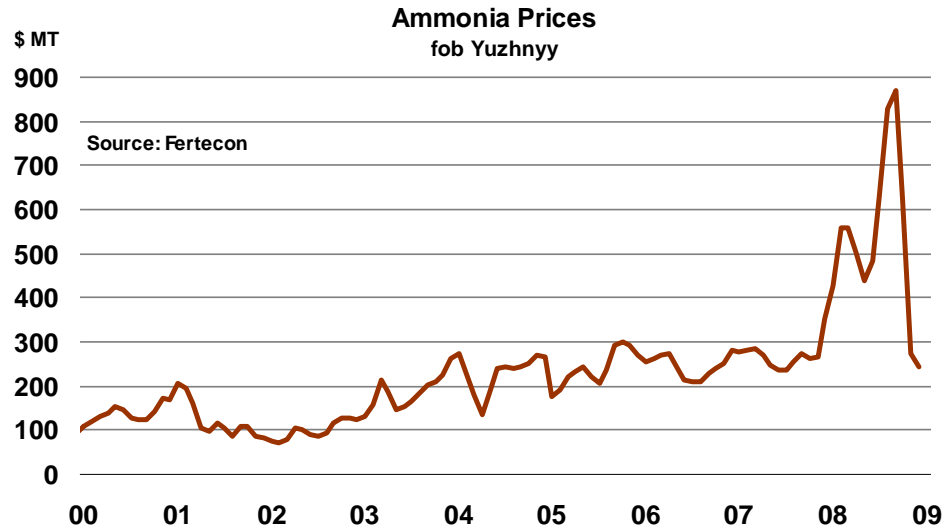
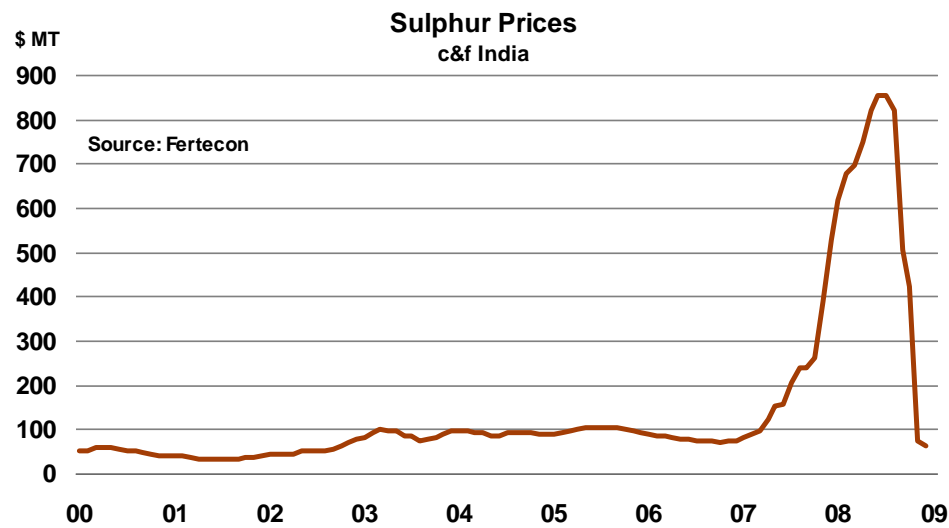
Note: Assumes the 2007 crop was sold at the average price received by Iowa farmers for the last six months of the crop year and the 2008 and 2009 crops were sold at the new crop prices on November 26



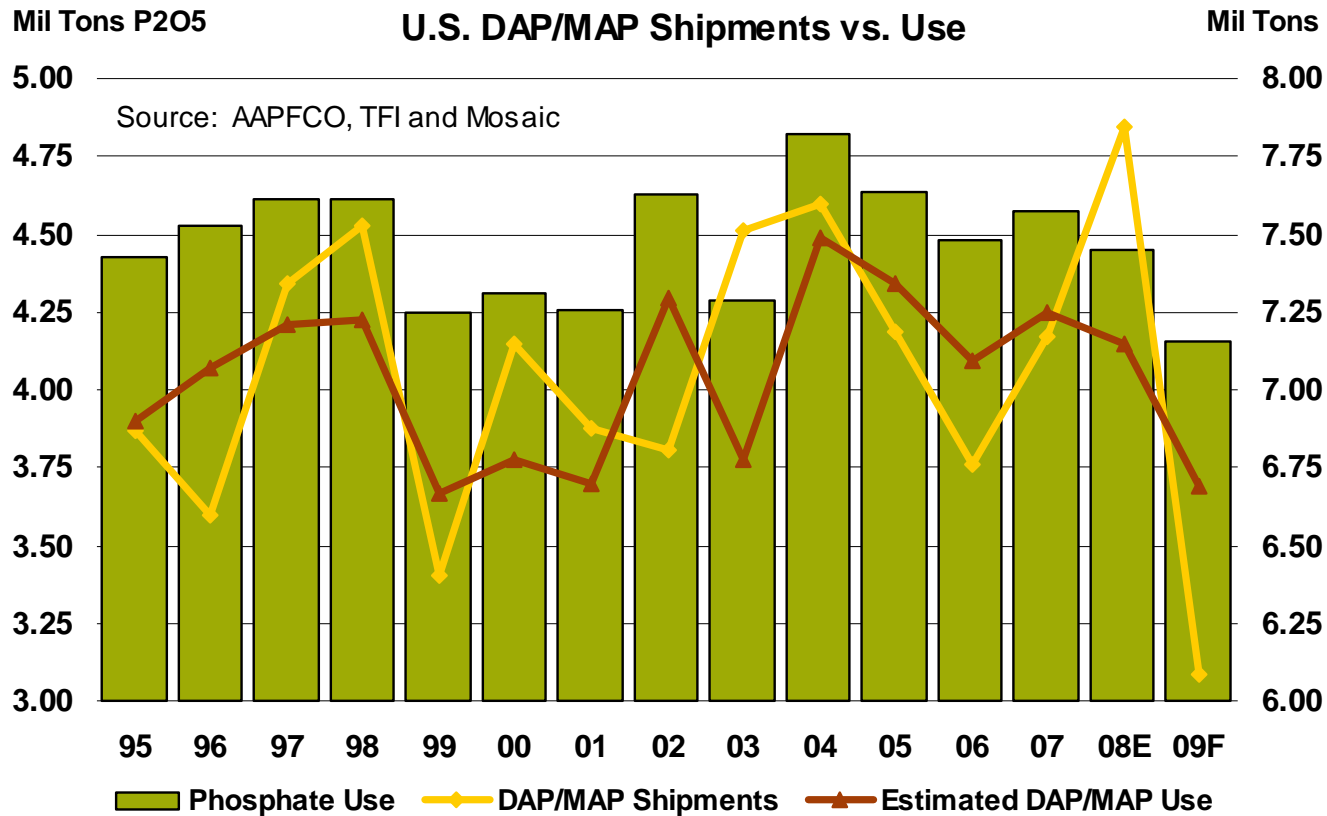
Commodity sell-off erodes farm economics and nutrient demand



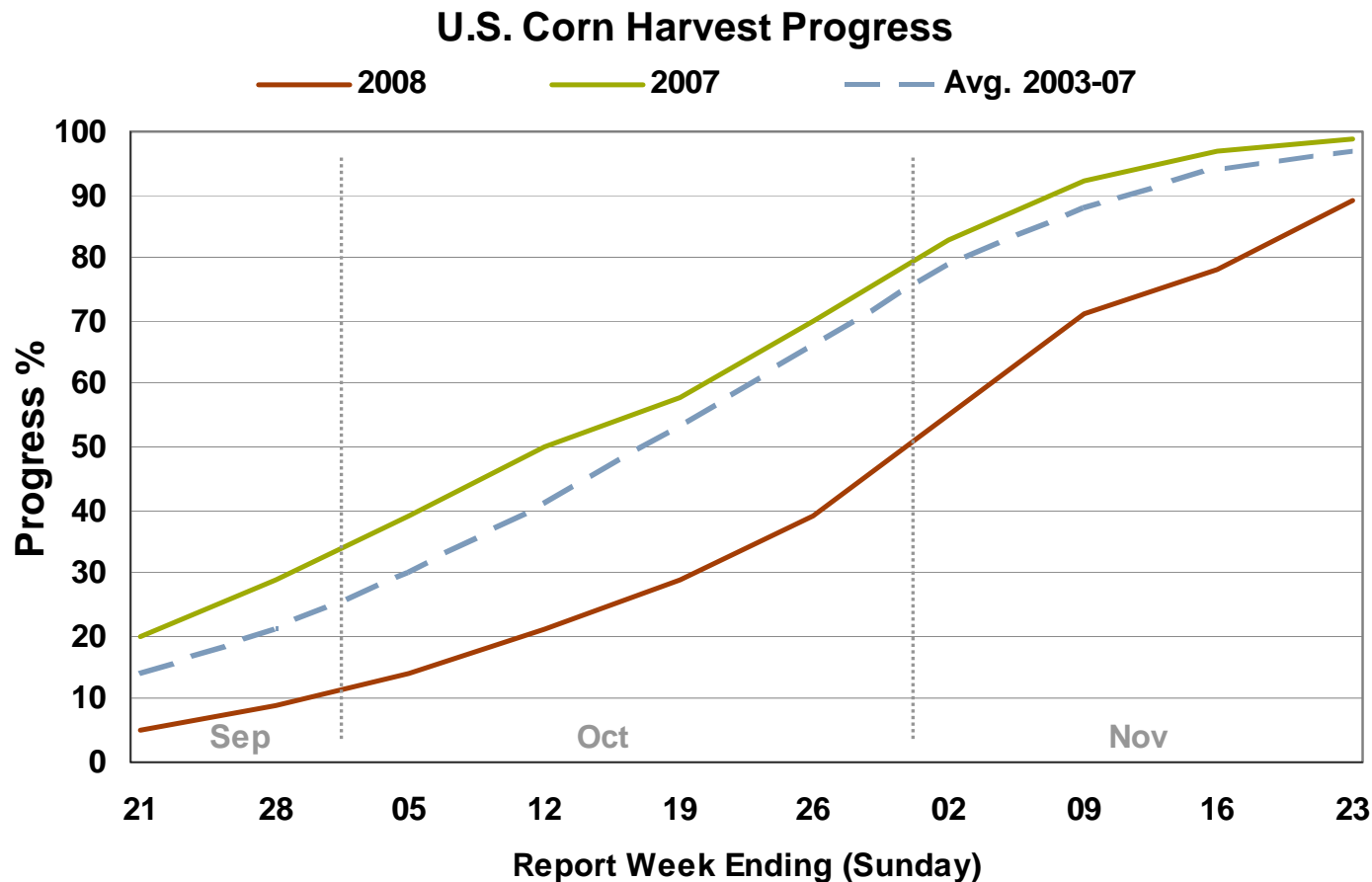
Collapse of raw materials costs



Large distribution pipeline stocks



Late North American fall application season



Lower Chinese export tax Dec 1-Jan 31

- Announced on November 13
- Applies to 373 different products or commodities
- Designed to stimulate domestic economy
- Valid from December 1, 2008 to December 31, 2009
- Phosphate export duties:
 - ⇒ 10% during low season and 110% during high season
 - ⇒ DAP/MAP low season: Dec 08-Jan 09, Jun-Jul, Nov-Dec
 - ⇒ DAP/MAP high season: Feb-May, Aug-Oct
 - ⇒ DAP reference price: RMB4.0 per kg or about US\$585 per tonne
 - ⇒ MAP reference price: RMB3.7 per kg or about US\$540 per tonne
 - ⇒ If the export price is higher than the reference price during the low season, then *export duty* = $(1.1 - \text{reference price} / \text{export price}) * 100$
 - ⇒ 1.5-million-tonne export quota on phosphate rock



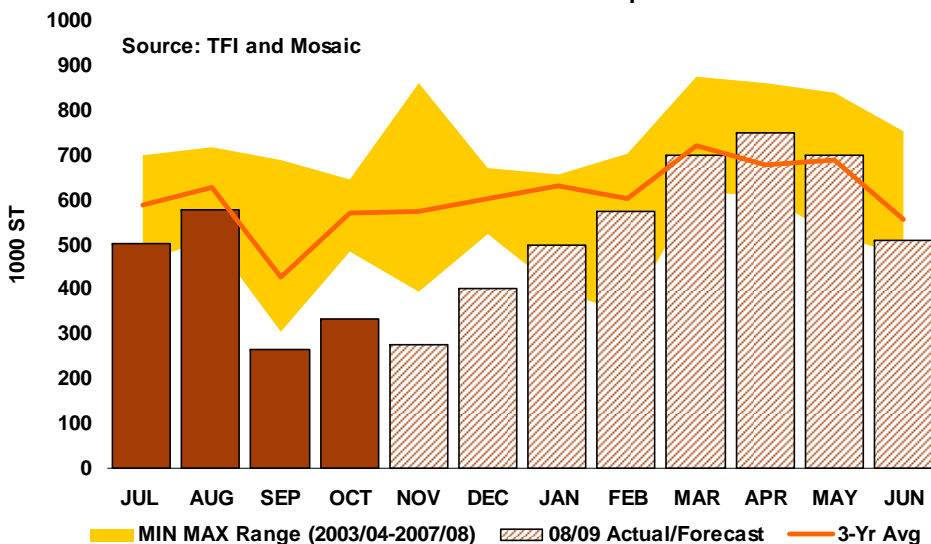
Consequences

- Customers step out of the market due to expectations of lower prices
- Producers curtail production in response to stock builds
- Large inventory risk exposure along the entire supply chain
- A “Perfect Storm” of another kind during the spring of 2009?



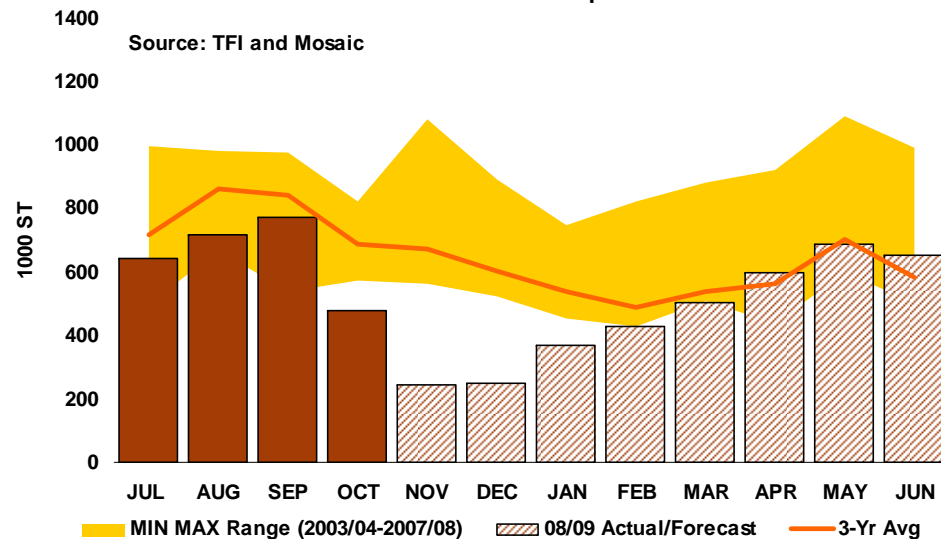
Customers step out of the market

U.S. DAP and MAP Domestic Shipments



YTD (Jul-Oct) DAP/MAP domestic shipments are down 35% from high levels a year ago. We project that shipments will drop more than 40% during the first six months of the fertilizer year and end the year down 22%.

U.S. DAP and MAP Exports



YTD (Jul-Oct) DAP/MAP exports are up 4% from a year ago but exports tailed off in October and are projected to drop 17% by the end of December and then end the fertilizer year down 9%.



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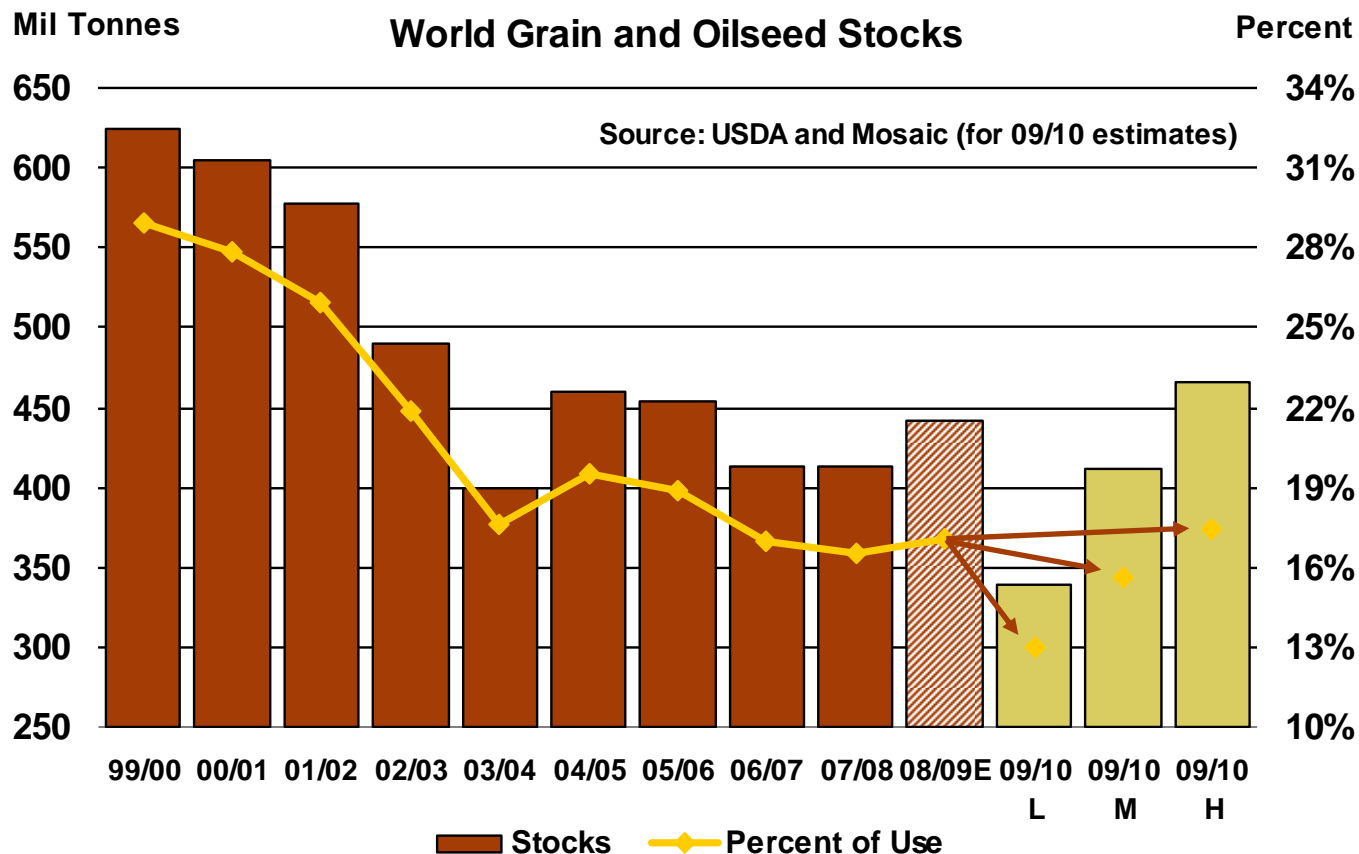


Factors to Watch

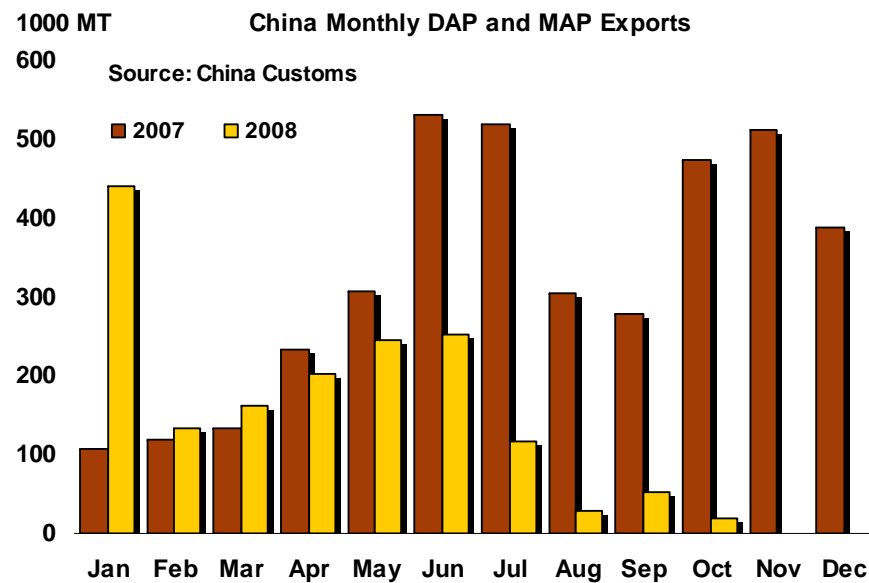
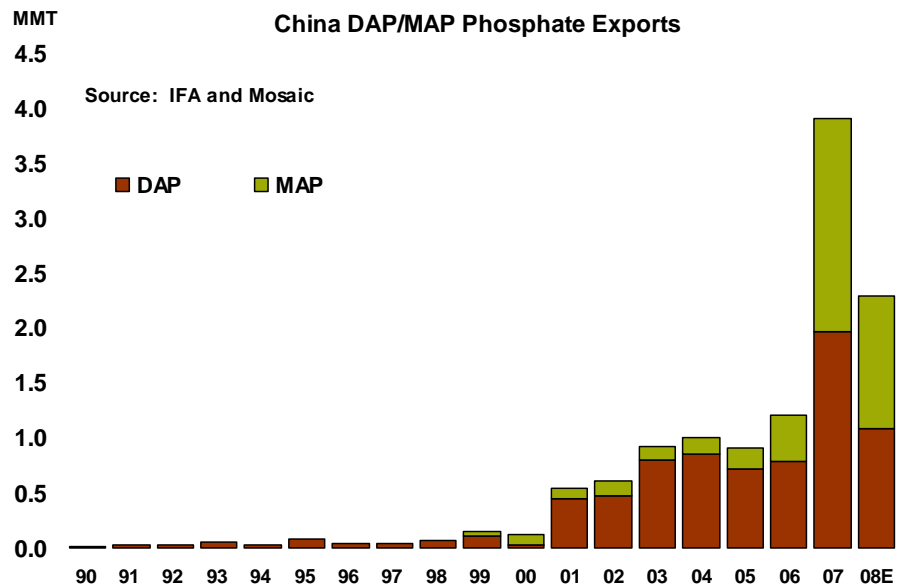
- Agricultural commodity prices
 - ⇒ Oil prices
 - ⇒ Value of U.S. dollar
 - ⇒ Traditional drivers
- U.S. fall/Brazil spring application season
 - ⇒ There was one
 - ⇒ Drawdown of the distribution pipeline
- Energy and raw materials costs
 - ⇒ Quick move to “new equilibrium” is positive
 - ⇒ What will 2009 bring? (e.g. ammonia)
- China – still a wild card



Another bumper crop is required in 2009



China – still a wildcard





Thank You!

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