Supply and Demand Dynamics

Global Phosphate and Potash Outlook
Safe Harbor Statement

Certain statements contained herein constitute “forward-looking statements” as that term is defined under the Private Securities Litigation Reform Act of 1995. Although we believe the assumptions made in connection with the forward-looking statements are reasonable, they do involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of The Mosaic Company, or industry results generally, to be materially different from those contemplated or projected, forecasted, estimated or budgeted (whether express or implied) by such statements.

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

Supply/Demand Dynamics Impacting Global P&K Markets

- 2007/08 market volatility
- Fundamental drivers
  - Agricultural commodity prices and farm economics
    - Near term situation and outlook
    - Impact of the global financial crisis
  - Energy and raw materials costs
  - Changes in distribution pipeline stocks
  - Government policies
    - Indian subsidy
    - Chinese export taxes
- Near term outlook for phosphate and potash
  - Markets recalibrate
    - Customers stop buying
    - Producer warehouses and distribution pipeline plug
  - Demand destruction or deferral?
2007/08 crop nutrient market volatility

Granular Urea Prices
NOLA Barge

DAP Prices
Central Florida Rail

Potash Prices
Blend Grade fob U.S. Midwest Warehouse

Source: Green Markets
Similar to other commodity price volatility

**Goldman Sachs Commodity Index**
Monthly Average of Daily Rate

**Copper High Grade Scrap #2 Wire Cash Prices**
Monthly Average of Daily Close of Cash Prices

Source: COMEX

Source: IOM
Supply/Demand Dynamics Impacting Global P&K Markets

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Agricultural commodity prices

Corn Prices
Monthly Average of Daily Close of Nearby Futures Contract

Source: CBOT

Soybean Prices
Monthly Average of Daily Close of Nearby Futures Contract

Source: CBOT
Other agricultural commodity prices also have declined from peaks reached earlier this year.
Outstanding supply responses in 2007 and 2008

World Grain and Oilseed Production
16 Leading Crops

Bil MT

Source: USDA
Record harvested area and average yield

World Grain and Oilseed Area and Yields

Source: USDA

Harvested Area
Yield
Linear (Yield)
But another bumper crop is required in 2009.
Impact of the global financial crisis

- Credit constraints limit planted area and crop input use in some regions
- Agricultural commodity sell-off erodes nutrient demand prospects
  - A rush to liquidity
  - The linkage to oil
- Deep and long economic downturn forecast for 2009
  - Cautious consumers
  - Limited impact on grain and oilseed demand
    - Traditional drivers
    - Biofuels
  - Lower commodity prices/deflation
    - Energy (positive impact on operating costs and freight)
    - Basic materials (positive impact on capital costs)
    - Corn (food or energy?)
  - Value of U.S. dollar
Sell-off erodes nutrient demand prospects

- Agricultural commodity sell-off
  - A rush to liquidity (by funds)
  - The linkage to oil

![2009 New Crop Prices: Daily Close of New Crop Options Jan 2 to Dec 15](Source: CBOT and KCBOT)
Sell-off erodes nutrient demand prospects

- 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 economic growth & weak dollar cause oil prices to increase (and vice-versa)
  - Higher oil prices boost 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

WTI Crude Oil vs. Corn Nearby Futures Prices - 2008

\[ y = 0.0382x + 1.413 \]

\[ R^2 = 0.8708 \]

Source: NYMEX and CBOT
Economic *slowdowns* have had limited impacts on global grain and oilseed use.
U.S. biofuels - here to stay?

- The Energy Independence and Security Act of 2007

- Renewable Fuels
  - Definitions
    - Conventional biofuel – ethanol from corn
    - Advanced biofuel – renewable fuels other than ethanol from corn
      - Cellulosic biofuel
      - Biomass-based diesel
      - Undifferentiated advanced biofuel (UAB)
  - Mandates
    - Conventional biofuels
      - 2009: 10.5 billion gallons
      - 2015: 15.0 billion gallons
      - 2022: 15.0 billion gallons
    - Advanced biofuels
      - 2009: 600 million gallons (500 million biodiesel, 100 million UAB)
      - 2010: 950 million gallons (650 million biodiesel, 200 million UAB, 100 million cellulosic)
      - 2022: 21.0 billion gallons (16 billion cellulosic, 5 billion UAD)
Ethanol accounts for 6% of gasoline supplies today and is projected to account for 10% by 2015.

Source: EIA and Mosaic

Bil Gal

U.S. Ethanol Production

Percent

Actual
Forecast
Percent of Gasoline Use

95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15

Source: EIA and Mosaic
About one-third of the U.S. corn crop now is ground into ethanol.
Plants are expected to run

### Key Assumptions

- DDGS sell at 90% of the value of corn
- Cost of natural gas $6.00 MM Btu today or $.25 per gal ethanol
- Other variable costs of $.25 per gal

### Return Over Variable Cost ($ Gal Ethanol)

<table>
<thead>
<tr>
<th>Conversion</th>
<th>Price of Ethanol fob Plant ($ Gal)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$1.00</td>
</tr>
<tr>
<td>2.8 Gal/Bu</td>
<td></td>
</tr>
<tr>
<td>$5.50</td>
<td>($0.85)</td>
</tr>
<tr>
<td>$5.00</td>
<td>($0.72)</td>
</tr>
<tr>
<td>$4.50</td>
<td>($0.59)</td>
</tr>
<tr>
<td>$4.00</td>
<td>($0.46)</td>
</tr>
<tr>
<td>$3.50</td>
<td>($0.33)</td>
</tr>
<tr>
<td>$3.00</td>
<td>($0.21)</td>
</tr>
<tr>
<td>$2.50</td>
<td>($0.08)</td>
</tr>
<tr>
<td>$2.00</td>
<td>$0.05</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$2.20</td>
</tr>
</tbody>
</table>

**Maximum or Shut Down Cost of Corn ($ Bu)**

- $5.50
- $5.00
- $4.50
- $4.00
- $3.50
- $3.00
- $2.50
- $2.00

---

*MCPR Trade Show and 2008 CPM Short Course*

*December 17, 2008*
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

- 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 12, 2008

### Variable Cost for a U.S. Midwest High Yield Farm Operation

<table>
<thead>
<tr>
<th>Year</th>
<th>Soybeans</th>
<th>Corn Following Soybeans</th>
<th>Corn Following Corn</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>$150</td>
<td>$200</td>
<td>$225</td>
</tr>
<tr>
<td>2004</td>
<td>$180</td>
<td>$225</td>
<td>$250</td>
</tr>
<tr>
<td>2005</td>
<td>$200</td>
<td>$250</td>
<td>$275</td>
</tr>
<tr>
<td>2006</td>
<td>$220</td>
<td>$275</td>
<td>$300</td>
</tr>
<tr>
<td>2007</td>
<td>$240</td>
<td>$300</td>
<td>$325</td>
</tr>
<tr>
<td>2008</td>
<td>$260</td>
<td>$325</td>
<td>$350</td>
</tr>
<tr>
<td>2009</td>
<td>$280</td>
<td>$350</td>
<td>$375</td>
</tr>
</tbody>
</table>

Source: Iowa State University and Mosaic

![Variable Cost Chart]

### RAVC for a U.S. Midwest High Yield Farm Operation

<table>
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<tr>
<th>Year</th>
<th>Soybeans</th>
<th>Corn Following Soybeans</th>
<th>Corn Following Corn</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>$0</td>
<td>$50</td>
<td>$100</td>
</tr>
<tr>
<td>2004</td>
<td>$100</td>
<td>$150</td>
<td>$200</td>
</tr>
<tr>
<td>2005</td>
<td>$200</td>
<td>$250</td>
<td>$300</td>
</tr>
<tr>
<td>2006</td>
<td>$300</td>
<td>$350</td>
<td>$400</td>
</tr>
<tr>
<td>2007</td>
<td>$400</td>
<td>$450</td>
<td>$500</td>
</tr>
<tr>
<td>2008</td>
<td>$500</td>
<td>$550</td>
<td>$600</td>
</tr>
<tr>
<td>2009</td>
<td>$600</td>
<td>$650</td>
<td>$700</td>
</tr>
</tbody>
</table>

Source: Iowa State University and Mosaic

![RAVC Chart]

### 2009 Key Cost Assumptions

- **Diesel ($/gal)**: $3.00
- **Seed 3x Stack ($/bag)**: $300
- **Crop Nutrients ($/ton)**
  - Ammonia: $515
  - DAP: $485
  - MOP: $860

### Key Price Assumptions

<table>
<thead>
<tr>
<th>Crop</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>$5.02</td>
<td>$3.25</td>
<td>$3.85</td>
</tr>
<tr>
<td>Soybeans</td>
<td>$12.10</td>
<td>$8.19</td>
<td>$8.39</td>
</tr>
</tbody>
</table>

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 December 12, 2008.
Supply/Demand Dynamics Impacting Global P&K Markets

- 2007/08 market volatility
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Energy and raw materials costs

- Oil
- Natural gas
- Sulphur
- Ammonia
Rise and fall of energy costs

Crude Oil Prices
Monthly Average of Daily Close of WTI Nearby Option

Henry Hub Natural Gas Prices
Monthly Average of Daily Close of Nearby Options

Source: NYMEX
Rise and fall of raw materials costs

**Sulphur Prices**
- c&f Tampa
- Source: Green Markets

**Ammonia Prices**
- c&f Tampa
- Source: Fertecon
Changes in distribution pipeline stocks
New crop corn prices are down significantly from last summer and now less than a year ago.
Government policies

Indian subsidies insulate domestic farmers from higher crop nutrient costs

Source: Fertecon, IFA and Mosaic
Government policies

Chinese export taxes and procurement strategies cause market uncertainty

Source: Fertecon and Mosaic

Source: IFA and Mosaic

Chinese MOP Imports

Mil Tonnes

KCL

Source: Fertecon and Mosaic

Mil Tonnes

DAP MAP

Source: IFA and Mosaic

Mil Tonnes

China DAP/MAPExports

China DAP/MAPExports

Mil Tonnes

Source: Fertecon and Mosaic

Mil Tonnes

China MOP Imports

Mil Tonnes

DAP MAP

Source: IFA and Mosaic
Chinese export tax policy

- 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
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Markets recalibrate

- Customers stop buying
  - Expectations of lower prices
  - Late NA fall application season
  - Credit availability

- Producer warehouses and distribution pipeline plug

- Large inventory risk exposure along the entire supply chain
Customers stop buying

YTD (Jul-Nov) DAP/MAP domestic shipments are down 42% from high levels a year ago.

YTD (Jul-Nov) DAP/MAP exports are down 10% from a year ago.
Customers stop buying

YTD (Jul-Nov) domestic shipments are down 21% from a year ago.

YTD (Jul-Nov) exports are down 9% from a year ago.
U.S. phosphate producers plug-up

U.S. DAP and MAP Producer Total Stocks

Source: TFI and Mosaic

MIN MAX Range (2002/03-2006/07) 07/08 Actual 3-Yr Avg

MIN MAX Range (2003/04-2007/08) 08/09 Actual 3-Yr Avg
NA potash producer inventories begin to increase

Source: IPNI and Mosaic
A late NA fall season also slows movement.
The fall season accounts for almost one-half of total crop nutrient use application in Minnesota.

Fertilizer Use by Application Season for Selected States

<table>
<thead>
<tr>
<th>Million Tons</th>
<th>2004/05</th>
<th>2005/06</th>
<th>2006/07</th>
<th>Three-Year Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fall</td>
<td>Total</td>
<td>Fall Pct</td>
<td>Fall</td>
</tr>
<tr>
<td>Kansas</td>
<td>0.88</td>
<td>2.16</td>
<td>41%</td>
<td>0.86</td>
</tr>
<tr>
<td>Illinois</td>
<td>2.02</td>
<td>3.59</td>
<td>56%</td>
<td>1.75</td>
</tr>
<tr>
<td>Iowa</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>1.72</td>
</tr>
<tr>
<td>Minnesota</td>
<td>1.11</td>
<td>2.37</td>
<td>47%</td>
<td>1.04</td>
</tr>
<tr>
<td>Nebraska</td>
<td>0.71</td>
<td>2.70</td>
<td>26%</td>
<td>0.80</td>
</tr>
<tr>
<td>Ohio</td>
<td>0.61</td>
<td>2.15</td>
<td>28%</td>
<td>0.55</td>
</tr>
<tr>
<td>Texas</td>
<td>1.04</td>
<td>3.02</td>
<td>34%</td>
<td>1.10</td>
</tr>
<tr>
<td>Sub-total</td>
<td>6.36</td>
<td>16.00</td>
<td>40%</td>
<td>7.83</td>
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Total U.S. Use
Selected States Percent

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Total U.S. Use
Selected States Percent

Minnesota Crop Nutrient Use by Application Season

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<th>2006/07</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Fall</td>
<td>Total</td>
<td>Fall Pct</td>
<td>Fall</td>
</tr>
<tr>
<td>Nitrogen (N)</td>
<td>323</td>
<td>633</td>
<td>51%</td>
<td>342</td>
</tr>
<tr>
<td>Phosphate (P$_2$O$_5$)</td>
<td>150</td>
<td>298</td>
<td>50%</td>
<td>126</td>
</tr>
<tr>
<td>Potash (K$_2$O)</td>
<td>133</td>
<td>312</td>
<td>43%</td>
<td>119</td>
</tr>
<tr>
<td>Total</td>
<td>606</td>
<td>1,243</td>
<td>49%</td>
<td>586</td>
</tr>
</tbody>
</table>

Source: AAPFCO and TFI
Credit limits shipments 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
Phosphate and potash outlook

- Key question: demand destruction or deferral this fall?

- Factors to watch
  - Agricultural commodity prices
    - Oil prices and exchange rates
    - Traditional drivers – weather, population and income
  - Energy and raw materials costs
  - The actual decline in fall application this year
  - Speed of market recalibration
    - Drawdown of supply chain stocks
    - Inventory valuation adjustments
  - Policies in India and China
Thank You!

Supply and Demand Dynamics

Global Phosphate and Potash Outlook