Implications of Energy Market Dynamics for the U.S. Agricultural Supply Industry

**Presented by**

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What Can We Conclude?

- Energy prices are volatile and have become more so since 2000.

- Energy prices – oil and natural gas price levels trending upward since 2000.

- Prices paid by farmers – market prices for “energy” based inputs:
  - i.e., petrochemicals and fertilizers, not as volatile.
  - i.e., fuels and lubricants volatile.
The U.S. Fertilizer Industry

- Energy Dependence
  - Nitrogen (Anhydrous Ammonia)
  - Phosphate (Rock/Acid/Ammoniated Phosphates)
  - Potash (Muriate of Potash)
U.S. Fertilizer Producers: Energy Dependence

Price Indices: Levels

- Henry Hub Index
- Anhydrous Ammonia Index, New Orleans
- DAP Index, Central FL

Index (1999=1.00)

Q1-95  Q3-95  Q1-96  Q3-96  Q1-97  Q3-97  Q1-98  Q3-98  Q1-99  Q3-99  Q1-00  Q3-00  Q1-01  Q3-01  Q1-02  Q3-02  Q1-03  Q3-03  Q1-04  Q3-04
U.S. Fertilizer Market Developments

Natural Gas Costs, Margin, and Anhydrous Ammonia Price

- Natural Gas Cost
- Margin
- Anhydrous Ammonia Spot Price
U.S. Fertilizer Market Developments

Nitrogen Consumption

Apparent Consumption

Producer Disappearance

Imports

fertilizer Years (July/June)
Conclusions

- Expect energy prices – oil and natural gas to remain at high levels and be volatile
- Fertilizer is commodity, no branding
  - U.S. nitrogen producers will remain under price pressures
  - Nitrogen imports remain high
  - Further consolidation and contraction
  - U.S. phosphate producers, sensitive (margins) to volatile energy costs, production adjustments based on export markets
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U.S. Fertilizer Market Developments
Nitrogen (NH3) Capacity

U.S. Ammonia Capacity

Non U.S. Ammonia Capacity
Volatility of Energy Markets

Energy Price Indices: Levels

Energy Price Indices: Y-O-Y Percent Change
Volatility of Agriculture Input Markets

Prices Paid By Farmers

Prices Paid By Farmers: Y-O-Y Percent Change

Percent

Index (1990=100.0)
Volatility of Energy/Input Markets

Energy Price Indices: Y-O-Y Percent Change

Prices Paid By Farmers: Y-O-Y Percent Change
U.S. Fertilizer Producers: Energy Dependence

Anhydrous Ammonia

- Total Production Costs (L)
- Natural Gas Cost (L)
- Energy Costs (R)

Diammonium Phosphate

- Total Production Costs (L)
- Energy Costs (L)
- Energy Costs (R)