Feeding Gold Nuggets to Cattle: The Case of $6.50 Corn

Meeting Fuel Mandates With Red Hot Markets
AAEA & NAREA Joint Annual Meeting
July 25, 2011
Pittsburgh, PA

Nevil C. Speer, PhD, MBA
Western Kentucky University
Feed/Residual vs. Ethanol Utilization (mil bu)
(~ 43.5 and 44.5%, respectively, of total domestic use)
More later.....
Carryover vs. Price
(89/90-05/06 vs 06/07-11/12)

Steeper price regression
More volatility

Corn Price ($/bu)

Stocks/Use
NEW DYNAMICS
Corn Futures Weekly Change (Nearby - $/bu)

Average Weekly Move:
2006 = 9 cents / 2007 = 16 cents
2008 = 28 cents
2009 = 14 cents / 2010 = 13 cents
2011 to date: 23 cents

2000-2005 Average Weekly Move:
5.8 cents
Volatility Rules The Day! ("Gamin’ USDA Reports")

'11 Nearby Corn Contract

ZCU11 - Corn (CBOT) - Daily Nearest OHLC Chart

(c) Barchart.com

Vol: 281,583
Open Interest: 1,187,057

Feb 11  Mar  Apr  May  Jun  Jul
Amplified Regional Differences

Local Basis (cash minus nearby futures: $/bu)

Unpredictable!!!
Financial Ramifications:
Markets Always Uncertain…
What’s New is Amplified Volatility!

- 25,000 head feedyard
- Daily corn usage: 7-8,000 bu
- Equivalent to 675,000 quarterly
- Current moving average = ~25 cents
- Wrong decision: ~$170,000
  - For just one quarter!!!!
  - $3-4/head over 2 turns
  - Potentially wipes out annual profit

Purchasing inputs is increasingly time consuming and complex
THE INFLUENCE OF ETHANOL
Battle for Acres: Corn/Wheat/Soybean Acreage (mil acres)
1996 = 218.5 mil acres vs. 2011 = 227 mil acres
## DDGS Net Influence

(Adapted from Wisner, AgMRC, IA State Univ.)

<table>
<thead>
<tr>
<th></th>
<th>06-07</th>
<th>07-08</th>
<th>08-09</th>
<th>09-10</th>
<th>10-11</th>
<th>11-12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Corn Usage for ethanol (mil bu)</strong></td>
<td>2,117</td>
<td>3,049</td>
<td>3,709</td>
<td>4,568</td>
<td>4,925</td>
<td>5,070</td>
</tr>
<tr>
<td><strong>Gross acres used for ethanol (mil harvested)</strong></td>
<td>14.2</td>
<td>20.2</td>
<td>24.1</td>
<td>27.7</td>
<td>32.2</td>
<td>31.5</td>
</tr>
<tr>
<td><strong>DDGS production (mil bu equiv)</strong></td>
<td>466</td>
<td>682</td>
<td>842</td>
<td>1,051</td>
<td>1,140</td>
<td>1,180</td>
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<tr>
<td><strong>DDGS sub for corn (mil harvested acres)</strong></td>
<td>3.1</td>
<td>4.5</td>
<td>5.5</td>
<td>6.4</td>
<td>7.5</td>
<td>7.3</td>
</tr>
<tr>
<td><strong>Net ethanol corn acres (mil harvested)</strong></td>
<td>11.1</td>
<td>15.7</td>
<td>18.6</td>
<td>21.4</td>
<td>24.8</td>
<td>24.2</td>
</tr>
</tbody>
</table>
LASTING CHANGES:
THAT WAS THEN, THIS IS NOW
Ag Commodities Traditional Model
Internal Drivers Only

Speculators

Fundamentals

Grains
Meats
# Ethanol Plant Alternative Scenarios: Crude, Gasoline and Shutdown Price of Corn

*Source: Darrell Good and Scott Irwin, UofI (March, 2011)*

<table>
<thead>
<tr>
<th>Crude Oil Price ($/bbl)</th>
<th>Wholesale Gasoline Price ($/gal)</th>
<th>Shutdown Price of Corn for Ethanol Plants ($/bu)</th>
</tr>
</thead>
<tbody>
<tr>
<td>75</td>
<td>2.00</td>
<td>5.89</td>
</tr>
<tr>
<td>95</td>
<td>2.50</td>
<td>7.84</td>
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<tr>
<td>110</td>
<td>3.00</td>
<td>9.78</td>
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<tr>
<td>130</td>
<td>3.50</td>
<td>11.72</td>
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<tr>
<td>150</td>
<td>4.00</td>
<td>13.66</td>
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### Commitment of Traders:
**CME Group Corn Contract**

<table>
<thead>
<tr>
<th>Futures Open Interest</th>
<th>Commercial Short</th>
<th>Non-Commercial Long</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan-05</td>
<td>1,100</td>
<td>200</td>
</tr>
<tr>
<td>Jul-05</td>
<td>1,400</td>
<td>300</td>
</tr>
<tr>
<td>Jan-06</td>
<td>1,700</td>
<td>400</td>
</tr>
<tr>
<td>Jul-06</td>
<td>2,000</td>
<td>500</td>
</tr>
<tr>
<td>Jan-07</td>
<td>1,900</td>
<td>600</td>
</tr>
<tr>
<td>Jul-07</td>
<td>2,100</td>
<td>700</td>
</tr>
<tr>
<td>Jan-08</td>
<td>2,200</td>
<td>800</td>
</tr>
<tr>
<td>Jul-08</td>
<td>2,300</td>
<td>900</td>
</tr>
<tr>
<td>Jan-09</td>
<td>2,400</td>
<td>1,000</td>
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<tr>
<td>Jul-09</td>
<td>2,500</td>
<td>1,100</td>
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<tr>
<td>Jan-10</td>
<td>2,600</td>
<td>1,200</td>
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<td>Jul-10</td>
<td>2,700</td>
<td>1,300</td>
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<td>2,800</td>
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<td>2,900</td>
<td>1,500</td>
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**Thousands**

The graph shows the trends in Futures Open Interest, Commercial Short, and Non-Commercial Long positions from January 2005 to July 2011.
Ag Commodities New Model of Complexity

Ethanol

Globalization

Energy Markets

Ag Commodities

Financialization / Money Flow / Globex

Forex

POLICY!

Morning markets: iPad factor spurs markets - grains included
Clearly higher prices have impacted agriculture in a number of ways – most notably, for many producers it’s altered underlying capital requirements to maintain normal business operations. But perhaps more important is the added volatility that’s been encountered along the way. And if 2008 has taught us anything (financial crisis or not) is that the trading puzzle has become increasingly complex. All markets are inexorably linked and increasingly dynamic. Neither simple nor safe havens no longer exist. Therefore, there’ll be no reprieve from needing to be hyper-vigilant in terms of decision making, marketing and/or risk management in the future.
WHERE TO....?
“What you really want to plan for are ‘what ifs’ rather than counting on a linear forecast of what’s going to happen.”

Gerald Greenwald, Founding Principal, Greenbriar Equity Group LLC
Former Chairman and CEO, UAL Corp
Former Vice-Chairman, Chrysler

Bloomberg on the Economy; Jan 13, 2009
Always remember, it’s the worry you haven’t even thought to worry about that should worry you the most!

Clarice Bean, Don’t Look Now (Lauren Child)
Questions?

Corn is good for you