Managing Price Risk for Corn, Soybean, and Wheat

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Overview

• Inflation / Interest Rates / Stock Markets
• Ukraine-Russia
• Input prices
• Supply and Demand
• Corn, Soybean, and Prices
Inflation

- May +8.6%
- Food: +10.1%
- Gasoline: +48.7%
- Natural Gas: +30.2%
- Vehicles: +12.6%

Interest Rates

- June 2022: 4%
- 2-3% increase likely in 2022!
Stock Markets

- DJIA down 16.4% from the High
- S&P 500 down 22.1%
- NASDAQ down 31.9%

Fertilizer Prices

Liquid Fertilizer Price, 2019-2022

Dry Fertilizer Price, 2019-2022
### Diesel Prices

**Weekly Gulf Coast No 2 Diesel Retail Prices** (Dollars per Gallon)

### Increased Machinery Costs

2021 Custom Rate: $23.00 $/acre

<table>
<thead>
<tr>
<th>Category</th>
<th>Portion of Total Expense</th>
<th>Last Year Expense ($/acre)</th>
<th>Inflation 12 Month % Change for Specified Category</th>
<th>New Market Adjusted Rate ($/acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Recovery</td>
<td>66%</td>
<td>$15.07</td>
<td>12.6%</td>
<td>$16.96</td>
</tr>
<tr>
<td>Taxes, Insurance, and Housing</td>
<td>4%</td>
<td>$0.81</td>
<td>6.0%</td>
<td>$0.86</td>
</tr>
<tr>
<td>Fuel</td>
<td>17%</td>
<td>$4.00</td>
<td>48.7%</td>
<td>$5.94</td>
</tr>
<tr>
<td>Repair and Maintenance</td>
<td>6%</td>
<td>$1.34</td>
<td>14.0%</td>
<td>$1.53</td>
</tr>
<tr>
<td>Labor</td>
<td>8%</td>
<td>$1.79</td>
<td>12.0%</td>
<td>$2.01</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>$23.00</td>
<td>18.7%</td>
<td>$27.29</td>
</tr>
</tbody>
</table>
Natural Gas Price

Henry Hub Natural Gas Spot Price (Dollars per Million BTU)

Drying costs will be substantially higher. Natural Gas and Propane are up!

Ukraine

<table>
<thead>
<tr>
<th>Production (Compared to Last Year)</th>
<th>Corn</th>
<th>Soybean</th>
<th>Wheat</th>
</tr>
</thead>
<tbody>
<tr>
<td>-25.7%</td>
<td>-30.4%</td>
<td>-23.0%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exports ( Compared to Last Year)</th>
<th>Corn</th>
<th>Soybean</th>
<th>Wheat</th>
</tr>
</thead>
<tbody>
<tr>
<td>-63.8%</td>
<td>-38.3%</td>
<td>-44.8%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5-year Average Ukraine Share of Global Exports</th>
<th>Corn</th>
<th>Soybean</th>
<th>Wheat</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.0%</td>
<td>1.3%</td>
<td>9.5%</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>2022/23 Ukraine Share of Global Exports</th>
<th>Corn</th>
<th>Soybean</th>
<th>Wheat</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.9%</td>
<td>0.8%</td>
<td>4.9%</td>
<td></td>
</tr>
</tbody>
</table>
• Most of Corn Belt has sufficient moisture.
• Wet conditions for planting in the northwest Corn Belt.
• Late planting.
• June 30 Acreage Report
Global Corn Days-on-Hand, 2006-2022

Production: 46.68 Billion Bushels
Consumption: 46.465 Billion Bushels
Stocks: 12.22 Billion Bushels

December Corn Futures and Projected Crop Insurance Price, 2022

Russia Invades Ukraine
~$1.30 Price Gap

ZCZ22
Spring Crop Insurance

$7.00 put for $0.50/bu.
**Soybean Areas in Drought**

Reflects June 7, 2022
U.S. Drought Monitor data

- 500-600 million bushels of additional crush capacity coming online.
- Implications for planted acres
- Exports
- Feed

Approximately 10% of soybean production is within an area experiencing drought.
U.S. Soybean Stocks-to-Use, 2006-2022*

$y = -2.643 \ln(x) + 3.4556$

$R^2 = 0.4298$

Global Soybean Days-on-Hand, 2006-2022

2022/23

Production: 14.53 Billion Bushels
Consumption: 13.88 Billion Bushels
Stocks: 3.69 Billion Bushels
November Soybean Futures and Projected Crop Insurance Price, 2022

Russia Invades Ukraine

~$0.95 Price Gap

Memphis Tennessee Average Monthly Soybean Basis (Elevators and Barge Points), 5-Year Average and 2022

Memphis Tennessee Monthly Average Soybean Basis (Elevators and Barge Points), 2013-2022
• 26% of area in Severe to Exceptional Drought

**U.S. Wheat Stocks-to-Use, 2006-2022***

\[
y = -6.7572x + 8.593 \\
R^2 = 0.234
\]
Global Wheat Days-on-Hand, 2006-2022*

2022/23
Production: 28.42 Billion Bushels
Consumption: 28.77 Billion Bushels
Stocks: 9.8 Billion Bushels

July Wheat Futures and Projected and Harvest* Crop Insurance Price, 2022

Russia Invades Ukraine
~$3.50 Price Change Between Harvest Price and Projected Price as at June 14.
Take Home

• Production estimates and storage availability.
• Profitable opportunities in spite of elevated costs.
• Layoff financial risk from high inputs by securing a price on commodities.
• Establish a price on a portion of production (1/4 to 1/2)
• Set a price floor on additional production.
• Options, HTA’s, Forward Contracts

Thank you

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