Factors and Impacts of U.S. Food Price Increases

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National Corn Growers Association
2007 a Very Good Year

• Production reaches 13.1 billion bushels
  – Largest crop in U.S. history

• Average yield hits 151.1 bushels/acre
  – The second-highest yield estimate in history
2007 Corn Supply and Demand

Total Supply: 14.4 billion bushels

- Feed: 42%
- Ethanol: 22%
- Export: 17%
- Other Domestic: 9%
- Surplus: 10%

USDA 1/2008
**Three Steps to Meeting Demand**

1. Increase corn production by boosting average corn yield significantly
2. Displace more corn in feed use with coproducts
3. Improve efficiency to squeeze more ethanol from each bushel of corn
### 1. Increasing Corn Production

An example of making the unimaginable a reality

<table>
<thead>
<tr>
<th>U.S. Corn</th>
<th>1944</th>
<th>2007</th>
<th>% Change 1944-2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acres Harvested</td>
<td>85 mil</td>
<td>85 mil</td>
<td></td>
</tr>
<tr>
<td>Price (Season Avg)</td>
<td>$1.03</td>
<td>$3.04</td>
<td>+195%</td>
</tr>
<tr>
<td>Production</td>
<td>2.8 bil bu</td>
<td>13.1 bil bu</td>
<td>+371%</td>
</tr>
<tr>
<td>Yield</td>
<td>33 bu/Acre</td>
<td>151 bu/Acre</td>
<td>+364%</td>
</tr>
</tbody>
</table>

Source: USDA
Corn Yield Trends Are Accelerating

Source: USDA
2. More Corn to Ethanol

We increase portion of feed corn going to ethanol by replacing feed corn with high-nutrient ethanol coproducts.

![Graph showing corn displaced by DDGS (mmbu) from 2006-2016.]
One Bushel of Corn

2.8 Gallons Ethanol

AND EITHER

13.5 Pounds Gluten Feed
2.6 Pounds Gluten Meal
1.5 Pounds Corn Oil

OR

17.5 Pounds Distillers Grains
US Corn Demand – Domestic Livestock

Crop Year

Million bushels


Corn
Corn Displaced by DDG

*Projected
Source: USDA, ERS; ProExporter Network
3. Efficiency in Ethanol Production

Potential Ethanol Conversion Rates

<table>
<thead>
<tr>
<th>Gallons/Bushel</th>
<th>Base Rate (2005)</th>
<th>With High Fermentable Hybrids</th>
<th>With Fiber Conversion</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>2.8</td>
<td>2.94</td>
<td>3.3</td>
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Base Rate (2005) | 2.8 | With High Fermentable Hybrids | 2.94 | With Fiber Conversion | 3.3 |
Linking Biofuels to World Hunger is Irresponsible!
Thank you!