The Outlook for Grain Markets and Texas Agriculture in 2013

Emily Kerr and Michael Plante
U.S. dominates world production of corn, soy

Share of world production, 2000-2010 average

- Corn: 40%
- Soy: 38%
- Wheat: 9%
Corn prices jump 40 percent in two months
Soy prices increase 25 percent from May to July 2012.
Other price spikes occurred in recent years.
Outline

1. What’s behind recent price movements
   – Growing demand, supply issues

2. Outlook for the harvest in 2013
   – Looking better if weather cooperates

3. Implications for 11th District agriculture
   – High grain prices adversely affect Texas/N.M.
The world is consuming more corn!

<table>
<thead>
<tr>
<th>Year</th>
<th>U.S. Ethanol</th>
<th>U.S. less Ethanol</th>
<th>China</th>
<th>Rest of World</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>54</td>
<td>177</td>
<td>145</td>
<td>350</td>
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<tr>
<td>2012</td>
<td>114</td>
<td>148</td>
<td>207</td>
<td>403</td>
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The Ethanol Situation

Ethanol’s impact on corn demand

1. Huge impact before 2010
   – 2010 production 170% higher than 2006

2. Since 2010 little additional demand
   – About 40% of U.S. crop used for ethanol, byproducts

3. More advanced plants remain profitable
   – Suggests corn will continue to be used for ethanol
The Ethanol Situation

What does an advanced plant produce?

<table>
<thead>
<tr>
<th>Component of Corn</th>
<th>Processed and sold as</th>
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<tbody>
<tr>
<td>Carbohydrate</td>
<td>Ethanol</td>
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<tr>
<td>Fat</td>
<td>Corn oil</td>
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<td>Leftover (mainly protein)</td>
<td>Distiller’s grain (animal feed)</td>
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</table>
China is driving growth in soybean consumption

Million metric tons

2006

2012

China

Rest of World

178

182

46

76
Growing demand pressures supply

- World supply has grown dramatically
- Weather issues are a constant threat
- Weather issues abroad for soy and wheat
Spillovers are important

Price spikes in one crop can spillover to others:

• Consumers substitute towards other crops (example: away from corn toward wheat)

• Crops compete for acreage
Corn and soybeans compete for acreage in Iowa

Million acres, Y/Y change

-2007
-1.5
-1
-0.5
0
0.5
1
1.5
2
2007
2008
2009
2010
2011
2012
2013

Red: Corn
Blue: Soybeans

Forecast
Outlook for 2013

• Demand expected to continue growing
• Drought greatly relieved in Corn/Soy belt
• Future weather remains unpredictable
Bumper corn harvest expected in U.S.
Bumper corn harvest expected in U.S.

- Initial 2013 Forecast
- Actual Harvest
- Sept. 2013 Forecast

Million metric tons

- 2006: 250
- 2007: 320
- 2008: 310
- 2009: 330
- 2010: 310
- 2011: 300
- 2012: 370
- 2013: 350
Bumper corn harvest expected in U.S.

- **Initial 2013 Forecast**
- **Actual Harvest**
- **Sept. 2013 Forecast**

**Million metric tons**

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Bumper corn harvest expected in U.S.
Looking to our region
High grain prices: bad news for 11th District agriculture

• Grain is a key input for livestock producers

• 11th District agriculture largely livestock
  – Total TX agriculture=$23 billion in cash receipts
    • Livestock=$16 billion
      – Cattle=$11 billion

• Agriculture accounts for 1% of Texas GDP and 2% of New Mexico GDP
  – 9% when including linked economic activities
Shown are cash receipts by commodity group, 2011. Source: USDA.
Prolonged drought makes matters worse

October 2010

October 2011

October 2012

Current

Source: U.S. Drought Monitor.
Texas cattle herd dwindling

Rest of U.S.

Texas
What does this mean for Texas?

• Declining share of U.S. cattle herd
  – Ethanol byproducts give advantage to Corn Belt

• Fewer feedlots, meat processors
  – Cargill closure, likely more to come

• Farmers planting less cotton, more corn
Drought expected to persist in TX/NM

What’s the takeaway?

• Growing demand, weather pressuring prices

• Bumper harvest expected in 2013

• Eleventh District agriculture outlook mixed
Extra slides...
The Ethanol Situation

Government support

1. Tax credit for blending ethanol into gasoline
   – Eliminated in December 2011

2. Tariff on imports of Brazilian ethanol
   – Eliminated in December 2011

3. Renewable Fuel Standard (RFS)
   – Production has exceeded mandate in recent years
Demand for soy continues to grow despite skyrocketing prices, inventories decline significantly.

Export bans by India, Vietnam in early 2008 cause global rice market to freeze up, prices skyrocket.

U.S. plants lowest amount of soy in 12 years.

Export bans on wheat in India, others in 2007. Australian crop fails, world inventories decline to lowest levels in 20 years, panic buying by governments.

S. American crop fails.

U.S. drought.

U.S. harvest unexpectedly low.

Despite 100% price hike, demand continues growing.

U.S. harvest unexpectedly low.

Russia bans exports of wheat.

Drought in U.S. and Russia.

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Drought in U.S. and Russia.
Strong soybean production also expected

Million metric tons

Forecast
2013 U.S. wheat harvest impacted by weather
U.S. corn stocks severely depleted in recent years

Million metric tons

Ending stocks (LHS)

Dollars per bushel

Price (RHS)

U.S. corn stocks severely depleted in recent years

Million metric tons

Dollars per bushel


Million metric tons

Dollars per bushel

A few notes on crop insurance

• Provides yield protection and price protection

• Who pays?
  – Premiums subsidized by federal government

• Who uses it?
  – Most farmers, very few ranchers

• One of several agriculture subsidies mandated by farm bill