The Changing Business Climate for Agriculture
The Outlook for 2015

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Michael Boehlje, Distinguished Professor of Ag. Economics & Extension Economist
Crop Farm Incomes:
--Down 30% in 2014
--Down another 35% in 2015
--At or below 2004 to 2006

Animal Farm Incomes:
--Record High in 2014
--Near record in 2015
--But only 30% of total receipts
Real U.S. Corn Revenue (+Insurance)
Per Harvested Acre (2014 $’s)

1973 = $1,252
1946 = $697
1986 = $395
1921 = $172
1931 = $113
2012 = $1024
2005 = $373
2014-16= $631
Average Corn Revenue & Costs/Acre by Year in Indiana

Crop prices RISE faster than costs adjust upward: Positive Margins

Crop prices Fall faster than costs adjust downward: Negative Margins

Crop prices

RISE

faster than costs

adjust upward:

Positive Margins

Fall

faster than costs

adjust downward:

Negative Margins

Cost/Acre

Revenue/Acre

World **Corn** Yields

World **Soybean** Yields
### Corn: USDA

10/10/14

<table>
<thead>
<tr>
<th></th>
<th>10/11</th>
<th>11/12</th>
<th>12/13</th>
<th>13/14</th>
<th>14/15</th>
<th>14/15</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Carryin</strong></td>
<td>1,708</td>
<td>1,128</td>
<td>989</td>
<td>821</td>
<td>1,236</td>
<td>1,181</td>
</tr>
<tr>
<td><strong>Production</strong></td>
<td>12,447</td>
<td>12,358</td>
<td>10,780</td>
<td>13,925</td>
<td>14,475</td>
<td>14,530</td>
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<tr>
<td><strong>Total Supply</strong></td>
<td>14,182</td>
<td>13,514</td>
<td>11,932</td>
<td>14,781</td>
<td>15,736</td>
<td>15,741</td>
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<tr>
<td><strong>Feed &amp; Residual</strong></td>
<td>4,792</td>
<td>4,547</td>
<td>4,336</td>
<td>5,125</td>
<td>5,375</td>
<td>5,340</td>
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<tr>
<td><strong>FSI Non-Fuel</strong></td>
<td>1,406</td>
<td>1,426</td>
<td>1,396</td>
<td>1,375</td>
<td>1,405</td>
<td>1,410</td>
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<tr>
<td><strong>FSI Fuel (Ethanol)</strong></td>
<td>5,021</td>
<td>5,011</td>
<td>4,648</td>
<td>5,130</td>
<td>5,125</td>
<td>5,130</td>
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<tr>
<td><strong>Export</strong></td>
<td>1,835</td>
<td>1,541</td>
<td>731</td>
<td>1,917</td>
<td>1,750</td>
<td>1,775</td>
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<tr>
<td><strong>Total Use</strong></td>
<td>13,054</td>
<td>12,525</td>
<td>11,111</td>
<td>13,546</td>
<td>13,655</td>
<td>13,655</td>
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<tr>
<td><strong>Ending Stocks</strong></td>
<td>1,128</td>
<td>989</td>
<td>821</td>
<td>1,236</td>
<td>2,081</td>
<td>2,196</td>
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<tr>
<td><strong>US Farm Price</strong></td>
<td>$5.18</td>
<td>$6.22</td>
<td>$6.89</td>
<td>$4.45</td>
<td>$3.40</td>
<td>$3.30</td>
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$3.10- $3.70
### Soybeans: USDA

**10/10/14**

<table>
<thead>
<tr>
<th></th>
<th>Carryin</th>
<th>Production</th>
<th>Total Supply</th>
<th>Seed &amp; Residual</th>
<th>Crush</th>
<th>Exports</th>
<th>Total Use</th>
<th>Ending Stock</th>
<th>Farm Price</th>
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<tbody>
<tr>
<td>10/11</td>
<td>151</td>
<td>3,329</td>
<td>3,495</td>
<td>132</td>
<td>1,648</td>
<td>1,500</td>
<td>3,280</td>
<td>215</td>
<td>$11.30</td>
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<tr>
<td>11/12</td>
<td>215</td>
<td>3,094</td>
<td>3,325</td>
<td>88</td>
<td>1,703</td>
<td>1,365</td>
<td>3,156</td>
<td>169</td>
<td>$12.50</td>
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<tr>
<td>12/13</td>
<td>169</td>
<td>3,034</td>
<td>3,239</td>
<td>89</td>
<td>1,689</td>
<td>1,320</td>
<td>3,098</td>
<td>141</td>
<td>$14.40</td>
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<tr>
<td>13/14</td>
<td>141</td>
<td>3,258</td>
<td>3,570</td>
<td>97</td>
<td>1,734</td>
<td>1,647</td>
<td>3,478</td>
<td>92</td>
<td>$13.00</td>
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<tr>
<td>14/15</td>
<td>92</td>
<td>3,927</td>
<td>4,034</td>
<td>114</td>
<td>1,770</td>
<td>1,700</td>
<td>3,584</td>
<td>450</td>
<td>$10.00</td>
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<td></td>
<td></td>
<td></td>
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<td>$9.00-$11.00</td>
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Purdue

**Million Bushels**

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</thead>
<tbody>
<tr>
<td>Carryin</td>
<td>92</td>
</tr>
<tr>
<td>Production</td>
<td>3,957</td>
</tr>
<tr>
<td>Total Supply</td>
<td>4,064</td>
</tr>
<tr>
<td>Seed &amp; Residual</td>
<td>114</td>
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<tr>
<td>Crush</td>
<td>1775</td>
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<tr>
<td>Exports</td>
<td>1710</td>
</tr>
<tr>
<td>Total Use</td>
<td>3,599</td>
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<tr>
<td>Ending Stock</td>
<td>465</td>
</tr>
</tbody>
</table>

Farm Price: $9.00-$11.00
But the picture is much brighter in animal agriculture
Sharp Decline in Domestic Meat Supplies Is Behind the Strength in Livestock & Poultry Prices

Annual U.S. Red Meat & Poultry Consumption Per Capita

Source: USDA, LMIC Forecast for 2014-2016
Hog Slaughter Will Start to Rebound in ‘15

Annual U.S. Commercial Hog Slaughter

Slaughter in 2014 will fall 4 to 5% below 2013’s, but pork production will only decline about 1%. Slaughter will rebound in 2015 & 2016.

Source: USDA, LMIC forecasts for 2014-2016
Record High Prices & Profitable Through 2015

National Base Hog Prices
Annual Averages, 2010-2016

$ per Cwt.

Year

Source: USDA-AMS, LMIC Forecasts for 2014-2016
Slaughter Will Decline Sharply in 2014 & 2015

Slaughter in 2015 could fall 9% below 2013’s!

Annual U.S. Commercial Cattle Slaughter

Year

Million Head

Source: USDA, LMIC Forecasts for 2014-2016

Purdue Center for Commercial Agriculture

Changing Business Climate for Agriculture Webinar, October 31, 2014
Cow-Calf Operations Expected To Be Profitable Through 2017

**Kentucky 500-600 Lb. Steer Prices**
Annual Average, 2007-2016

Prices in 2014 up by 50% vs. 2013

Source: USDA, Agricultural Marketing Service
Forecasts for 2014-2016
Key Points

• Revenue, Variable Cost, & Contribution Margin Trends
• Earnings per Acre, 2005 to 2014
• Cash Rents & Land Values
• Price/Rent Ratios
• Factors Impacting Land Values
Rotation Corn in Indiana, $’s/Acre

- **Market Revenue**
- **Variable Cost**
- **Contribution Margin**

![Graph showing market revenue, variable cost, and contribution margin for rotation corn in Indiana from 2005 to 2014.](image)

Changing Business Climate for Agriculture Webinar, October 31, 2014
Rotation Soybeans in Indiana, $’s/Acre

Market Revenue
Variable Cost
Contribution Margin


$0 $100 $200 $300 $400 $500 $600 $700 $800

Changing Business Climate for Agriculture Webinar, October 31, 2014
Historical Earnings per Acre
Corn & Soybeans in Indiana


Corn Soybeans

$300 $250 $200 $150 $100 $50 $0 $-50 $-100 $-150 $-200

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West Central Indiana Cash Rents & Farmland Prices
2000 to 2014

Farmland (left axis)  Cash Rent (right axis)
Farmland Price to Cash Rent Multiples
West Central Indiana, 1960 to 2014

Actual P/rent
Average P/rent
Factors Impacting Land Values

• Cash Rent
  – Previous Cash Rent
  – Net Return to Land and Management

• Capitalization Rate
  – Interest Rate
    • U.S. Treasury
    • Inflation
    • Risk Premium
Strategies for Success During A Downturn

✓ Protect your working capital
✓ Hold on to cash & restructure debt
✓ Increase asset utilization
✓ Buy right
✓ Emphasize better execution