John Deere’s Outlook on Cattle Economics

Andy Hansen
Factory Manager
John Deere Ottumwa Works
Ottumwa, IA

Andrew W. Hansen is Factory Manager, John Deere Ottumwa Works in the Agricultural and Turf Division of Deere & Company. He joined the Company in 1976 at the Des Moines Works, and served primarily in manufacturing, materials management and manufacturing support assignments.

In 1997, Mr. Hansen moved to the Waterloo Works and served in a number of leadership positions in Information Services, Supply Management and Drive-train Operations. In 2005, he was appointed to the position of Director, Supply Management, in the Construction and Forestry Division. In 2010, Mr. Hansen was appointed to his current position as Factory Manager of the Ottumwa Works.

Mr. Hansen chairs the Kellogg School of Management MMM Advisory Board at Northwestern University, serves as a Board member of the Ottumwa Economic Development Corporation, a Board member of the Wapello County United Way Board, a Board member of the Ottumwa Airport Advisory Board in addition to being a Board member of the Ottumwa Regional Legacy Foundation. Mr. Hansen was born in Carlisle, Iowa, and is a graduate of Iowa State University with a B. S. in Industrial Administration. In 2000, Mr. Hansen completed The Executive Program at the Darden School of Business at the University of Virginia.

Summary
The drought of 2012 caused many implications to the agriculture industry. Low yielding crops, cattle herd liquidations, and increasing input costs are a few of the areas that were impacted. Low water levels on the Mississippi River are causing concerns for barge traffic, which are currently only carrying 50% capacity because of low water areas along points of the Mississippi River. For
2013, low water levels could potentially affect the shipments of crops and fertilizer which in turn will affect prices. Wheat, corn, and soybean stock levels have fallen due to poor weather conditions globally and increased demand which also has driven the commodity prices to historic levels. Livestock prices continue to hold strong but are affected by high feed costs. The drought of 2012, high feed prices, low hay supplies, and high cattle prices have led many farmers and ranchers to decrease herd size or even liquidate the entire herd. The feedlot industry has also been affected and continues to find ways to make a positive margin for their operations. This seems to be a struggle for 2012 and into 2013 as we look at high feeder cattle prices and high feed costs that affect the margin and profitability for feedlot operations.

**Future Outlook**

Ag fundamentals and crop prices appear to remain over the next few years. Interest rates remain at low levels for incentivizing equipment demand and Section 179 was recently extended through 2013 offering deductions on farm equipment purchases. However, livestock margins will continue to remain tight over the next few years and cuts to the farm bill are proposed. The European recession along with the uncertainty of the “Fiscal Cliff” resolution is impacting the overall global economic recovery.
John Deere’s Outlook on Cattle Economics
U.S. Drought having serious impact on livestock

- Drought impacting large cattle/dairy states
- Pushing feed prices higher
- Forced to feed hay earlier, haul water to herds
- Herd liquidation causes price decline
US drought situation improving in eastern Corn Belt, still severe in plain states and southeast

21 August, 2012

25 December, 2012

Source: USDA, December 2012
Mississippi River Level

- Low water level south of Missouri’s mouth causing difficulties for barge traffic
- River could possibly close in next few weeks unless there is more moisture – currently barges carrying 50% loads
- Will impact shipping of grain down river (impacting prices in the Midwest)
  - Using rail to port increases shipping costs
- Possibly impacting shipping of fertilizer up the river causing Midwest fertilizer prices to be higher
- Caused by severe drought – especially in the Missouri river basin
Global crop production drops in 2012

- Poor weather in S. America in early 2012 led to poor soybean crop
- Severe drought in U.S. impaired U.S. crop yields
- A light monsoon in India has also impacted crop production
- Global grain production down around 3% in 12/13 crop year

Source: USDA, December 2012
Global Crop Stock to Use Ratios

- Soybean stock levels have dropped from poor U.S. and SA weather coupled with strong demand.

- Corn stocks have dropped in recent years, and will drop further in 2012 as yields were weak.

- Wheat stocks remain at comfortable levels, but have dropped due to poor weather in India and CIS.

Source: USDA, December 2012
New supply/demand relationship driving higher prices

- New supply/demand environment has changed ag commodity pricing
- Old relationship based on supply shocks
- New relationship based on supply shocks in era of commodity scarcity, different public policy
- Will return to old relationship if demand growth slows to previous levels

Source: USDA, Deere and Company November 2012
Crop Prices to Remain Strong through 12/13 crop year

- Soybeans have weakened, due to stronger than expected yields, but prices are still expected to remain strong through the 12/13 crop year.
- Corn prices expected to average $7.00 for the 12/13 crop year.
- Wheat prices will remain strong, driven by strong overall grain prices and poor winter wheat weather.
- Prices should fall after harvest next fall assuming normal weather in ‘13.

Source: Deere and Company, January 2013
Input Cost Index
(Jan 2004=100)

- Fertilizer prices are down from last year being helped by low natural gas prices

- Fuel prices declined sharply since summer, helping decrease the cost of harvest and tillage work

- Overall expenses up 7% in 2012, likely less in 2013

- Expense growth will continue but slow in 2013 and 2014

Source: USDA, December 2012
North American Livestock

- Calf prices have strengthened since November, but remain weak compared with feed costs
  - Profitability has declined as hay prices remain high offsetting the high calf prices
  - Recovering pasture conditions will help cow-calf producers
- Profitability is significantly negative for feedlots given the high price of calves and high feed costs.
  - Feedlots lost around $275/steer in September, with October likely to be equally bad
- Hog prices have recovered substantially since September, however margins are likely still negative
  - Hog producers lost $54/hog in September, but margins have improved significantly in the last month
- Milk declined to around $21.10/HWT in December, slightly down from November but improved from a low of $16.20 in the spring. Margins have been negative most of the year, but prices are climbing closer to break-even levels for most producers.

Source: Deere and Company, January 2013
Livestock Prices Continue to Improve

Source: Deere and Company, December 2012
Livestock Situation

Livestock prices are good, but are offset by high feed costs.

Margins have been negative in the livestock industry for most of ‘12, but have begun to recover.

The dairy and beef industries should see price increases in ‘13 after a tough year in ‘12.

### Production

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
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<tbody>
<tr>
<td>Beef</td>
<td>26.1</td>
<td>26.4</td>
<td>26.3</td>
<td>25.9</td>
<td>25.2</td>
<td>24.3</td>
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<tr>
<td>Pork</td>
<td>23.0</td>
<td>22.4</td>
<td>22.8</td>
<td>23.3</td>
<td>22.9</td>
<td>23.2</td>
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<tr>
<td>Poultry</td>
<td>41.1</td>
<td>42.5</td>
<td>43.0</td>
<td>42.9</td>
<td>42.0</td>
<td>42.2</td>
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<tr>
<td>Milk</td>
<td>189.3</td>
<td>192.8</td>
<td>196.2</td>
<td>199.8</td>
<td>199.6</td>
<td>204.3</td>
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### Market Price

<table>
<thead>
<tr>
<th>Market</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>(Percent Change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fed Steers, TX/OK</td>
<td>83.59</td>
<td>95.69</td>
<td>114.40</td>
<td>122.20</td>
<td>126.08</td>
<td>133.00</td>
<td>(Percent Change)</td>
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<tr>
<td>Feeders, OK City</td>
<td>97.30</td>
<td>110.56</td>
<td>134.77</td>
<td>146.73</td>
<td>159.27</td>
<td>168.00</td>
<td>7% 3% 5%</td>
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<tr>
<td>Hogs, CME Lean</td>
<td>56.90</td>
<td>75.31</td>
<td>90.08</td>
<td>83.61</td>
<td>89.67</td>
<td>84.25</td>
<td>9% 9% 5%</td>
</tr>
<tr>
<td>Broilers, 12 City</td>
<td>77.51</td>
<td>82.96</td>
<td>79.00</td>
<td>84.40</td>
<td>87.55</td>
<td>86.62</td>
<td>(Percent Change)</td>
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<tr>
<td>Milk, Farm</td>
<td>12.83</td>
<td>16.28</td>
<td>20.14</td>
<td>18.42</td>
<td>20.69</td>
<td>18.60</td>
<td>(Percent Change)</td>
</tr>
</tbody>
</table>

Source: Deere and Company, January 2013
Livestock receipts will remain strong in ‘13 and ’14
- Crops will increase slightly in ‘13 as tight stock levels push prices higher – but decrease in ’14 as stock levels recover
- Total receipts will increase in ‘13 driven by extremely strong crop prices and improving livestock prices
- Total receipts will decline in ’14 after 4 consecutive years of significant improvements

### 2010-2014 US Farm Cash Receipts

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<tr>
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</thead>
<tbody>
<tr>
<td><strong>Livestock &amp; Products</strong></td>
<td>141.4</td>
<td>166.0</td>
<td>162.0</td>
<td>168.5</td>
<td>166.8</td>
<td>-2</td>
<td>4</td>
<td>-1</td>
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<tr>
<td><strong>Meat Animals</strong></td>
<td>69.9</td>
<td>84.6</td>
<td>83.1</td>
<td>85.5</td>
<td>85.7</td>
<td>-2</td>
<td>3</td>
<td>0</td>
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<tr>
<td><strong>Dairy Products</strong></td>
<td>31.4</td>
<td>39.5</td>
<td>35.9</td>
<td>40.1</td>
<td>38.5</td>
<td>-9</td>
<td>11</td>
<td>-4</td>
</tr>
<tr>
<td><strong>Poultry &amp; Eggs</strong></td>
<td>35.5</td>
<td>36.4</td>
<td>37.9</td>
<td>37.9</td>
<td>37.3</td>
<td>4</td>
<td>0</td>
<td>-1</td>
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<tr>
<td><strong>Other Livestock</strong></td>
<td>4.7</td>
<td>5.4</td>
<td>5.1</td>
<td>5.1</td>
<td>5.2</td>
<td>-5</td>
<td>-1</td>
<td>3</td>
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<tr>
<td><strong>Crops</strong></td>
<td>178.7</td>
<td>208.9</td>
<td>212.9</td>
<td>214.2</td>
<td>209.0</td>
<td>2</td>
<td>1</td>
<td>-2</td>
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<tr>
<td><strong>Food Grains</strong></td>
<td>14.1</td>
<td>17.6</td>
<td>18.7</td>
<td>18.4</td>
<td>16.9</td>
<td>6</td>
<td>-1</td>
<td>-8</td>
</tr>
<tr>
<td><strong>Feed Crops</strong></td>
<td>54.8</td>
<td>72.7</td>
<td>79.7</td>
<td>78.1</td>
<td>74.9</td>
<td>10</td>
<td>-2</td>
<td>-4</td>
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<tr>
<td><strong>Cotton</strong></td>
<td>7.6</td>
<td>8.3</td>
<td>6.3</td>
<td>6.2</td>
<td>5.6</td>
<td>-25</td>
<td>-1</td>
<td>-10</td>
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<tr>
<td><strong>Tobacco</strong></td>
<td>1.2</td>
<td>1.0</td>
<td>1.2</td>
<td>1.2</td>
<td>1.2</td>
<td>20</td>
<td>-6</td>
<td>-2</td>
</tr>
<tr>
<td><strong>Oil Crops</strong></td>
<td>36.5</td>
<td>39.7</td>
<td>41.4</td>
<td>44.0</td>
<td>43.6</td>
<td>4</td>
<td>6</td>
<td>-1</td>
</tr>
<tr>
<td><strong>Vegetables</strong></td>
<td>20.1</td>
<td>21.0</td>
<td>20.3</td>
<td>20.4</td>
<td>20.6</td>
<td>-3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Fruit &amp; Nuts</strong></td>
<td>21.9</td>
<td>24.2</td>
<td>22.2</td>
<td>22.7</td>
<td>23.0</td>
<td>-8</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>Other Crops</strong></td>
<td>22.5</td>
<td>24.4</td>
<td>23.2</td>
<td>23.0</td>
<td>23.2</td>
<td>-5</td>
<td>-1</td>
<td>1</td>
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<tr>
<td><strong>Total Farm Mktgs.</strong></td>
<td>321.0</td>
<td>374.9</td>
<td>374.9</td>
<td>382.7</td>
<td>375.8</td>
<td>0</td>
<td>2</td>
<td>-2</td>
</tr>
</tbody>
</table>

Source: Deere and Company, January 2013
Negative U.S. beef margins

- Cow/Calf margins slightly negative – should improve with rain
- Feedlot margins deep in red

U.S. Feedlot Margins

- Returns to Feeders
- Feeder Steer Prices, 7-800 lb.
Drought, increased input costs & high selling prices lead to herd liquidation

- Livestock herd continues to shrink due to margins, productivity
- Shrinking herd will allow for better margins in coming years
- Herd will begin to grow by 2017

U.S. Herd Size

- Cattle and Calves
- Beef Cows (Right)
- Dairy Cows (Right)
Pain persists in U.S. dairy industry

- Stiff foreign competition hurts prices
- Rising feed costs continue to weigh on margins
Ag Market Summary

Positive

• Crop prices remain very strong – stock levels low for most crops
• Ag fundamentals look positive through 2014
• Interest rates remain low through 2014, incentivizing equipment demand
• Most U.S. crop producers have crop insurance insuring at least adequate revenue in 2012
• Section 179 deduction for equipment reduced significantly in 2012, further in 2013

Negative

• Margins for livestock producers
• Farm programs will likely be cut in 2012 Farm Bill
• Risks of European recession impacting global recovery
• Fiscal Cliff resolution?

Source: Deere and Company, January 2013
Fix the Debt Campaign

• Nonpartisan coalition of civic leaders, CEOs, and budget experts whose objective is to lay the foundation for legislation and policy moves that would sharply reduce U.S. government debt and avoid automatic budget cuts due to begin in January 2013.

• CEO Sam Allen said he has committed to playing an active role in the effort to put America on a better fiscal and economic path. “Getting involved in the Campaign to Fix the Debt is the right thing to do,” he said. “It’s good for the country and goes beyond any specific policy priority for Deere. This type of undertaking is an example of the value of our broader government relations strategy.”

• It is Deere’s position that the political leaders in the U.S. must define a plan to substantially reduce its long-term budget deficits and stabilize the national debt as a percentage of GDP. The Campaign to Fix the Debt believes the plan must be predictable, long-term, and binding.
John Deere’s Position on Farm Bill

• Supports an adequate risk management structure that facilitates the production of an abundant, affordable, safe, and dependable food supply.

• Favors a conservation title that supports the practices and technologies that promote environmental benefits, improved efficiency, and optimized production on working lands.

• Deere will engage with legislators to explain positions and convey information concerning the impact of changes on risk management and work through farm groups to advocate the critical nature of crop insurance as a risk management tool.