

# Iowa Farm Outlook

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Ames, Iowa

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## Takeaways from the January Cattle Inventory Report

USDA has released the much anticipated inventory of the U.S. cattle herd as of January 1, 2015 and it comes as no surprise that the national cattle herd is on the build. The total number of cattle and calves is 89.8 million head, up 1.4% from a year ago. Beef cow numbers are up 2.1% at 29.7 million head. Nearly 5.8 million head of replacement beef heifers are destined to enter the national beef breeding herd, 4.1% more than 2014. Table 1 contains a summary of the U.S. and Iowa cattle inventory, the 2014 calf crop, and the percentage change from last year.

**Table 1. Cattle Inventory by Class and Calf Crop**

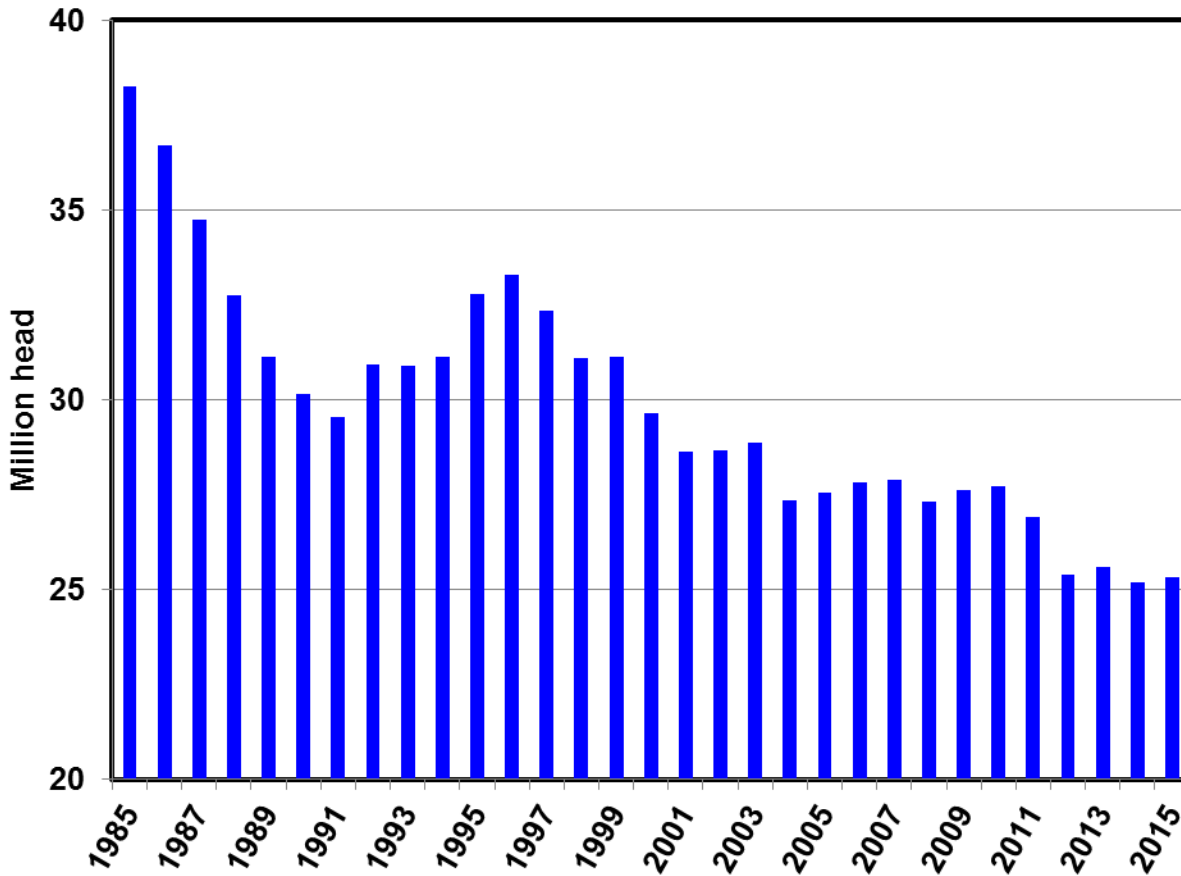
January 1 inventory *	United States			Iowa		
	2014	2015	2015 as % of 2014	2014	2015	2015 as % of 2014
Cattle and calves	88,526.0	89,800.0	101.4	3,800	3,900	102.6
Cows and heifers that calved	38,293.0	39,000.0	101.8	1,100	1,130	102.7
Beef cows	29,085.4	29,693.1	102.1	895	920	102.8
Milk cows	9,207.6	9,306.9	101.1	205	210	102.4
Heifers 500 pounds and over	18,969.4	19,240.2	101.4	920	940	102.2
For beef cow replacement	5,551.3	5,777.4	104.1	160	170	106.3
Expected to calve	3,305.0	3,546.0	107.3			
For milk cow replacement	4,548.7	4,615.4	101.5	120	130	108.3
Expected to calve	2,966.7	2,997.2	101.0			
Other heifers	8,869.4	8,847.4	99.8	640	640	100.0
Steers 500 pounds and over	15,667.9	15,778.5	100.7	1,270	1,310	103.1
Bulls 500 pounds and over	2,037.8	2,104.4	103.3	60	60	100.0
Calves under 500 pounds	13,557.9	13,676.9	100.9	450	460	102.2
Cattle on feed	13,018.3	13,093.0	100.6	1,230	1,220	99.2
Calf crop, **	33,730.0	33,900.0	100.5	1,020	1,050	102.9

\* 1,000 head, \*\* 2012, 2013, and 2014. Data Source: USDA/NASS. Full report:  
<http://usda.mannlib.cornell.edu/usda/current/Catt/Catt-01-30-2015.pdf>.

The supply of feeder cattle has also increased from a year ago. The estimated supply of feeder cattle outside feedlots was up 0.5% as a result of a 0.7% increase in the inventory of steers 500 pounds and over and a 0.9% increase in calves under 500 pounds; along with only a slight decrease in the inventory of other heifers. These

feeder cattle supply numbers, though larger than last year, are still at historically tight levels (figure 1). Feeder cattle supplies have been within the range of 25.18 and 25.59 million for the past four years. The average of those four years (25.37 million) is 8.1% lower than the average for 2004 through 2010 — the last years of “elevation” in feeder cattle supplies. The number of cattle on feed is currently 13.09 million, up 0.6% from a year ago. Increases in feedlot inventories can be attributed cattle being fed longer and sold at higher weights as feedlots try to offset the high price they paid for feeder cattle with relatively low cost gain.

**Figure 1. January 1 Feeder Cattle Supplies — Residual, Outside Feedlots, U.S.**



Source: USDA/NASS compiled by LMIC.

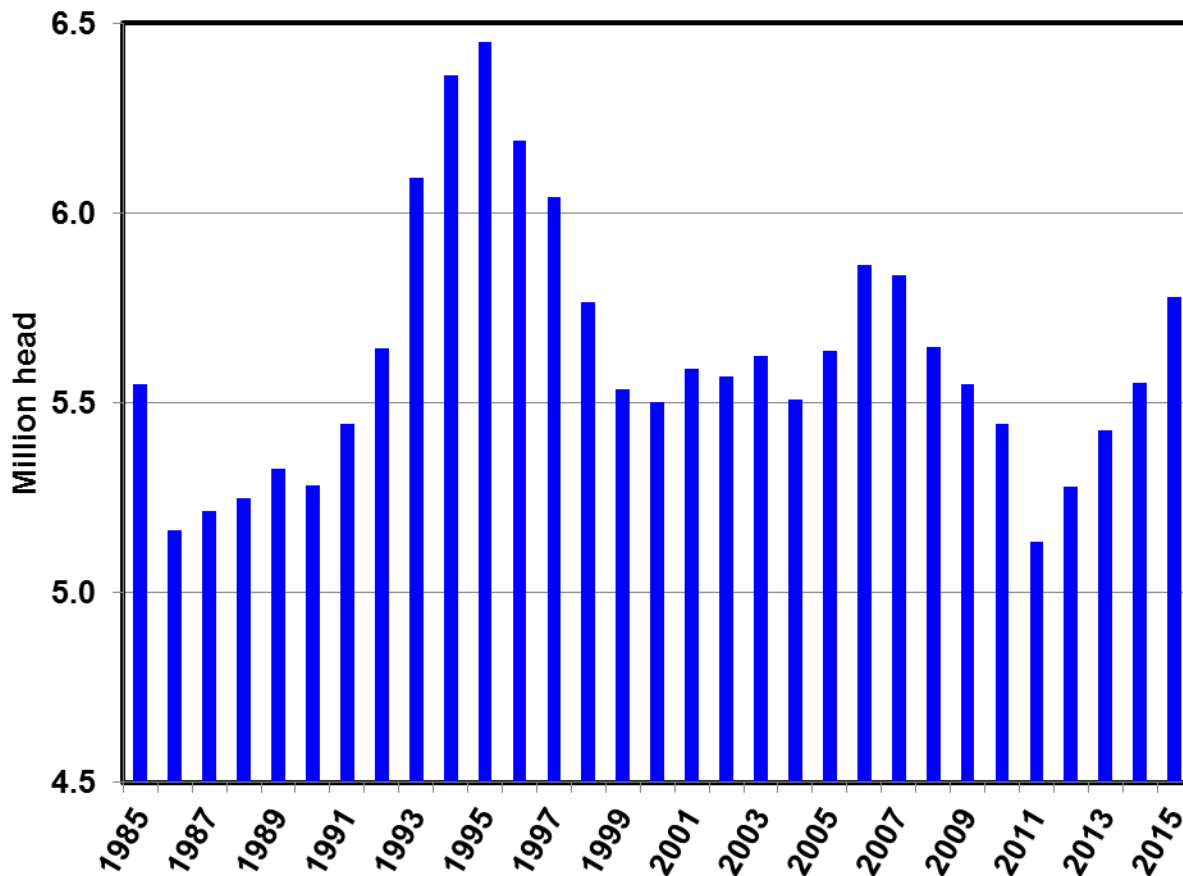
Last year’s calf crop at 33.9 million, being up one half of one percent, was in part due a downward revision of the 2013 calf crop. USDA decreased the 2013 calf crop by 200,000 head or 0.6% in this report. However, the 33.9 million head calf crop did imply a calf crop percentage (calf crop as a percent of all cows) at 88.5%, the highest percentage since 2006. Not coincidentally 2005-2006 was the last time the industry attempted to expand the beef cattle herd.

Beef cattle heifer retention is on the rise with nearly 4.1% more than last year’s inventory, the largest year over year increase since 1994 (figure 2). This is the fourth year in a row that heifer retention has increased. Perhaps one of the most notable things about the report was that the inventory of beef replacement heifers as a percent of the beef cow herd, at 19.5% was the largest in the history of the data, including the large expansionary phase experienced in the early 1990’s. Thus suggests cattlemen have added youth to their breeding herd which could even further spur growth in this expansionary phase. The number of beef heifers expected to calve in the coming year is up 7.3%. That is an unbalanced number relative to the number of heifers retained but suggests rapid expansion of the calf crop.

The January inventory gives some detail as to what is happening to cattle numbers within individual states. Iowa’s beef cow numbers are up 25,000 head, 2.8% above last year’s inventories. Among the large cattle producing states (over 900,000 beef cows) Texas, Oklahoma, Missouri, Montana, Kansas, Kentucky, Iowa, and Florida had a combined increase of 578,000 head of beef cows, a 4.4% increase from a year ago. On the other

hand, Nebraska, South Dakota, and North Dakota had a combined decrease of 43,000 head of beef cows, a 1.0% decrease from a year ago.

**Figure 2. Heifers Held for Beef Cow Replacement, January 1, U.S.**



Source: USDA/NASS compiled by LMIC.

In short, the beef industry is currently at a hot point in the building of the beef cattle herd. The extraordinary prices paid for feeder calves over the past year has encouraged cow-calf producers to build their herds by both heifer retention and culling fewer mature cows. Heifer retention will continue to have an impact on feeder cattle availability, and the possibility of fewer imports of feeder cattle from Canada and Mexico could temper any chance of relief to tight feeder cattle numbers. Bottom line: This report does not change market fundamentals much, if any, in 2015. The fact that there are more cows than expected does not change the timing of beef production in 2015.

*Lee Schulz*

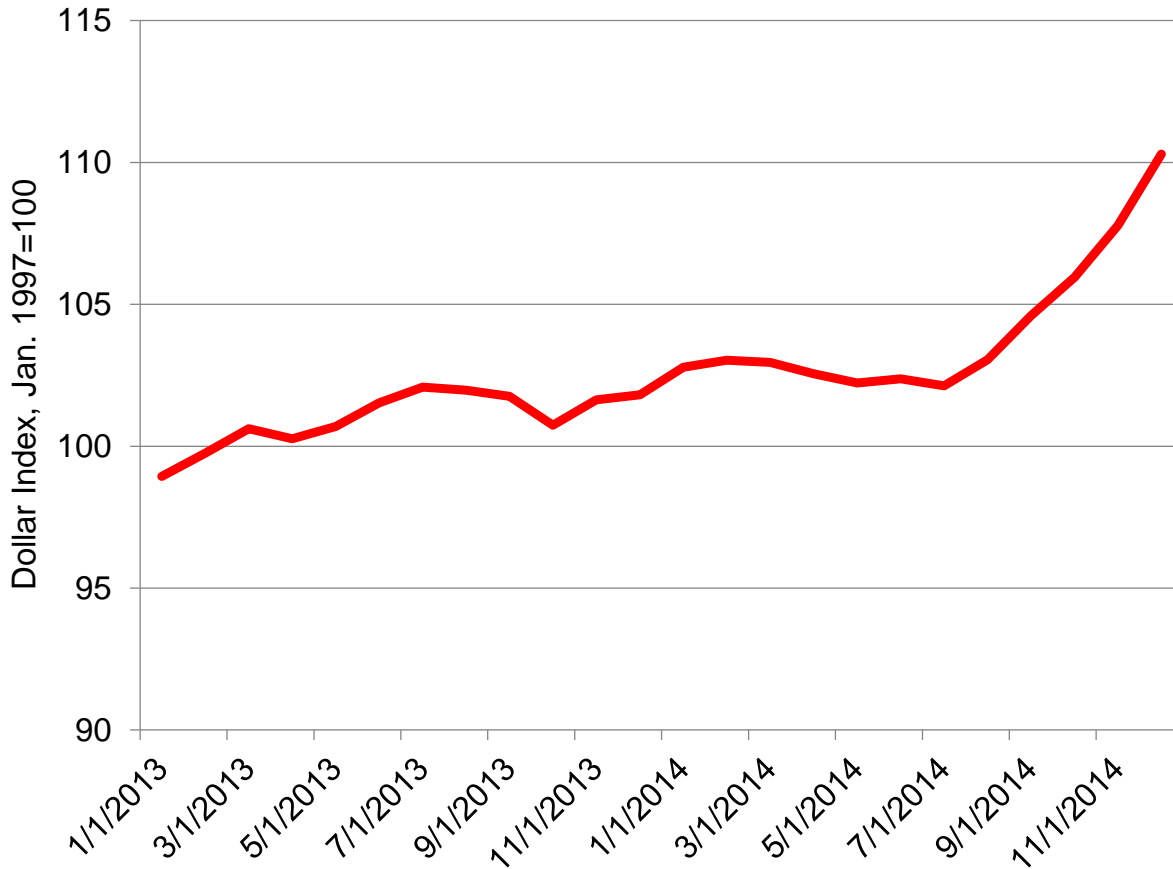
### **Pressure from Outside Markets**

Since the first of the year, the crop markets have been drifting downward. This drift is not caused by a lack of demand. In fact, for both corn and soybeans, USDA's demand projections show total demand at record levels. The major cause for the price erosion seems to be coming from outside markets. With the dollar continuing to strengthen and crude oil falling, there is a lot of pressure coming from outside of agriculture. And that pressure creates a lot of questions about whether the projected crop demand can hold up.

The U.S. dollar really began its ascent six months ago. As Figure 1 shows, the dollar has strengthened by nearly 10 percent since July. As global investors worry about the limited growth potential in Europe and Japan and the economic slowdowns in developing countries, such as China, investor focus has returned to the dollar. With the dollar on the rise, U.S. exports become more expensive to the rest of the world. That would typically

reduce export demand for corn and soybeans. Thus far, corn exports are roughly on pace with last year and soybean exports are running ahead of last year's pace. But continued export growth will be tough given the dollar's value.

**Figure 1. Dollar index, Jan. 1997 = 100. Source: Quandl.com.**



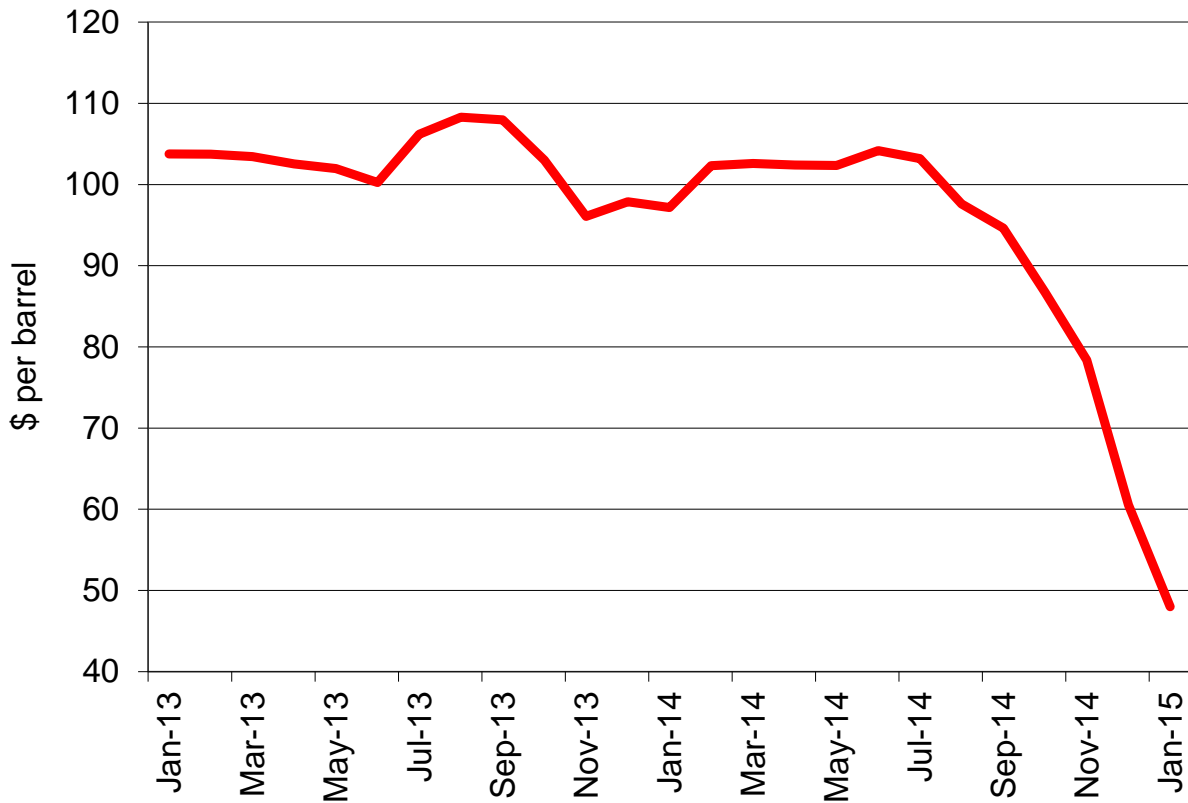
And that's not the only thing pushing against crop demands. The drop in crude oil prices also factors against corn and soybean usage. As Figure 2 displays, crude oil prices have declined by over 50 percent in the past few months. The cut in crude oil prices has been a welcome change for drivers as gasoline and diesel prices have plummeted. But that also means that ethanol and biodiesel margins have retreated as well. These lower biofuel margins will likely cause biofuel plants to slow (or even stop) production in the coming months, reducing crop demand. USDA's current projections have corn demand via ethanol reaching record levels for the 2014/15 crop. That is highly unlikely given the current energy price structure. The wildcard here will be the Renewable Fuels Standard. EPA has not announced the biofuel levels targeted for either 2014 or 2015. The setting of those levels may now be crucial for crop demand in 2015. The higher energy prices in the first half of 2014 supported strong production in the biofuel sector. That support is now gone.

The drop in crude oil prices is also a signal of the weakness of the global marketplace. While crude oil supplies have been growing, the main reason behind the price drop is a reduction in global demand for energy. Lower energy demand indicates slower economic growth, or even decline. Less economic growth indicates less income and lower export demand. So the drop in crude oil prices presents a double whammy to crop demand, reducing both biofuel and export demand.

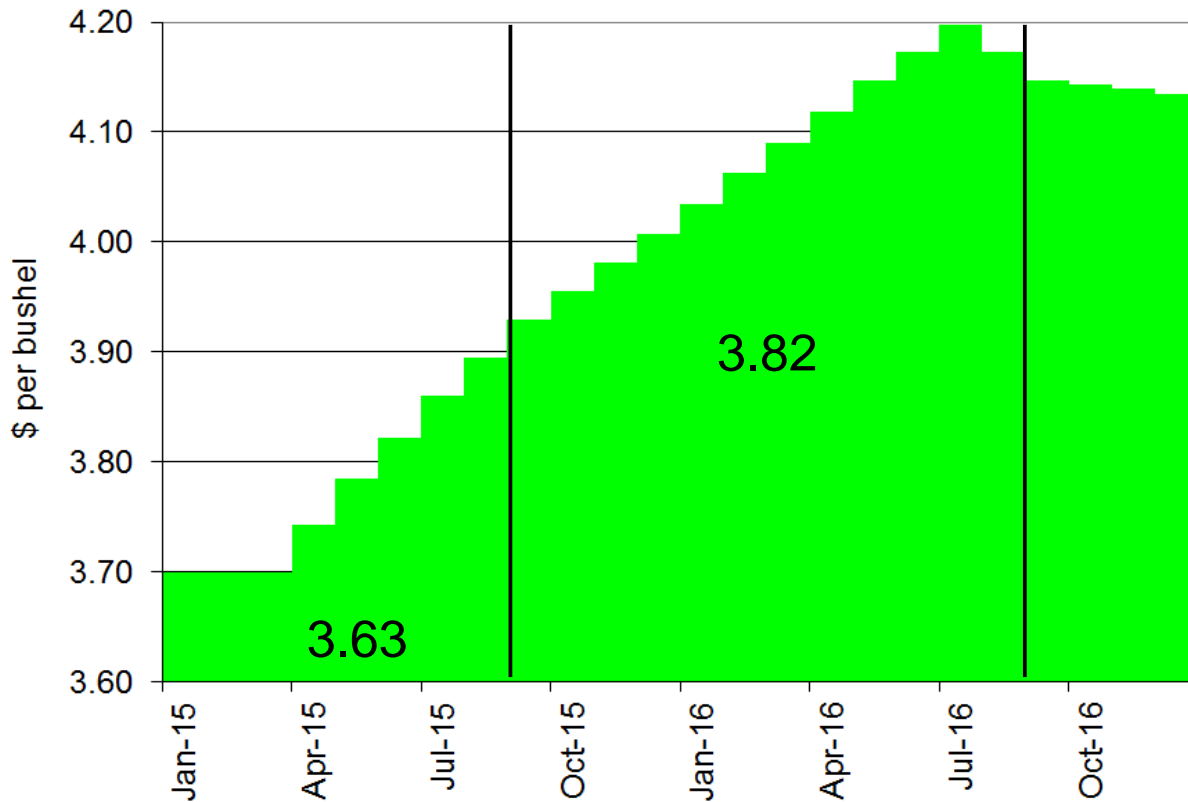
So the crop futures markets are caught between recent record crop demand and the potential for that demand to dissipate quickly. Combine that with record global crop supplies and you have a recipe for declining prices. Figures 3 and 4 show the futures prices as we exit January. Corn futures have built in some carry throughout 2015, but price levels remain below ISU's projected production costs, which are in \$4.50 per bushel range. Using these futures prices to estimate USDA's season average (or marketing year average) price, I arrive at \$3.63 per bushel for the 2014 corn crop and \$3.82 per bushel for the 2015 corn crop. Given USDA's current

season average price estimate is \$3.65 per bushel, the futures market is right in line with USDA for the 2014 corn crop. And the 2015 corn price does show some improvement.

**Figure 2. Monthly crude oil prices. Source: EIA.**

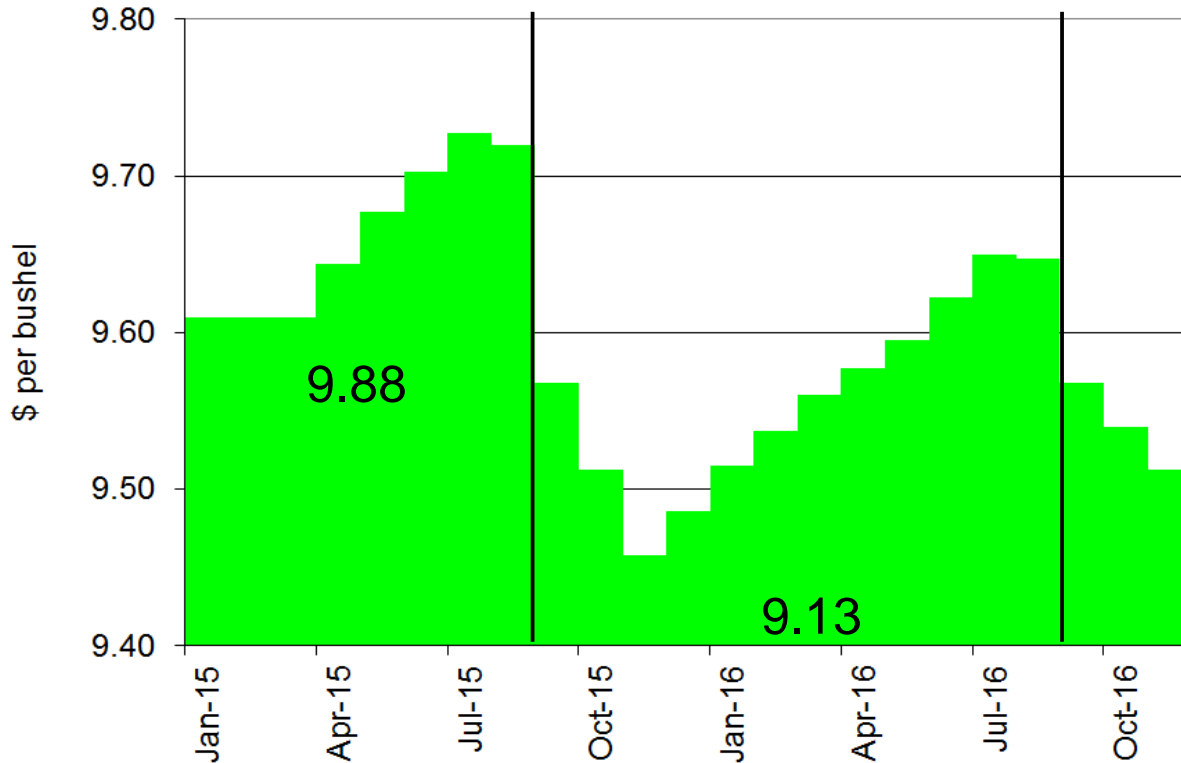


**Figure 3. Corn futures prices, Source: CBOT.**



Soybean futures have also built in some carry, but that stops at harvest time. Prices for the 2015 crop take a step back as the market expects additional acreage and production in the coming crop year. Needless to say, price levels remain below ISU's projected production costs, which are in \$11 per bushel range. USDA's current season average price estimate is \$10.20 per bushel. Futures point to \$9.88 per bushel. So the market is more bearish than USDA at the moment. For the 2015 soybean crop, the futures market is indicating a season average price in the \$9.10 range. So soybean prices continue to fall in the coming year.

**Figure 4. Soybean futures prices, Source: CBOT.**



In many ways, 2015 is looking a lot like 2014. Early weather projections support the prospects of strong crop production once again. And crop acreage seems to be headed toward soybeans. Given that, crop markets and prices continue to stay low. Barring a natural disaster and an unexpected surge in demand, crop prices will remain low and margins will be tight for some and negative for others. There is a light at the end of this tunnel, but it will likely be during the 2016 crop year before we reach it.

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