

Iowa Farm Outlook

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Beef Cattle Herd Expansion Underway but Supplies Still Remain Historically Tight

USDA recently released two reports estimating July 1, 2015 cattle inventories—the July Cattle report (also referred to as the mid-year Cattle Inventory report) and the July Cattle on Feed report. The USDA data provides confirmation that herd expansion is underway and clearly demonstrates that herd rebuilding will likely be a lengthy process and a slow one, at least initially. This should not be a major surprise as the current size of the herd, decrease in land available for grazing beef cows or producing needed forage, and the biology of cattle production implies a strict limit on the speed of herd expansion.

Figure 1 provides a summary of the July Cattle report. The total number of cattle and calves at 98.4 million head is up 2.2% from a year ago. Beef cow numbers are up 2.5% at 30.5 million head. USDA estimates 4.9 million head of replacement beef heifers are destined to enter the national beef breeding herd, 6.5% more than in 2014. Almost all final estimates were within the range of pre-report expectations. The only exception was heifers for milk cow replacement being up 2.4% compared to the pre-report estimate of up only 0.3%. This number, however, has much larger implications for future milk supplies and dairy prices than it does for beef production.

Figure 1. U.S. Cattle Inventory by Class and Calf Crop

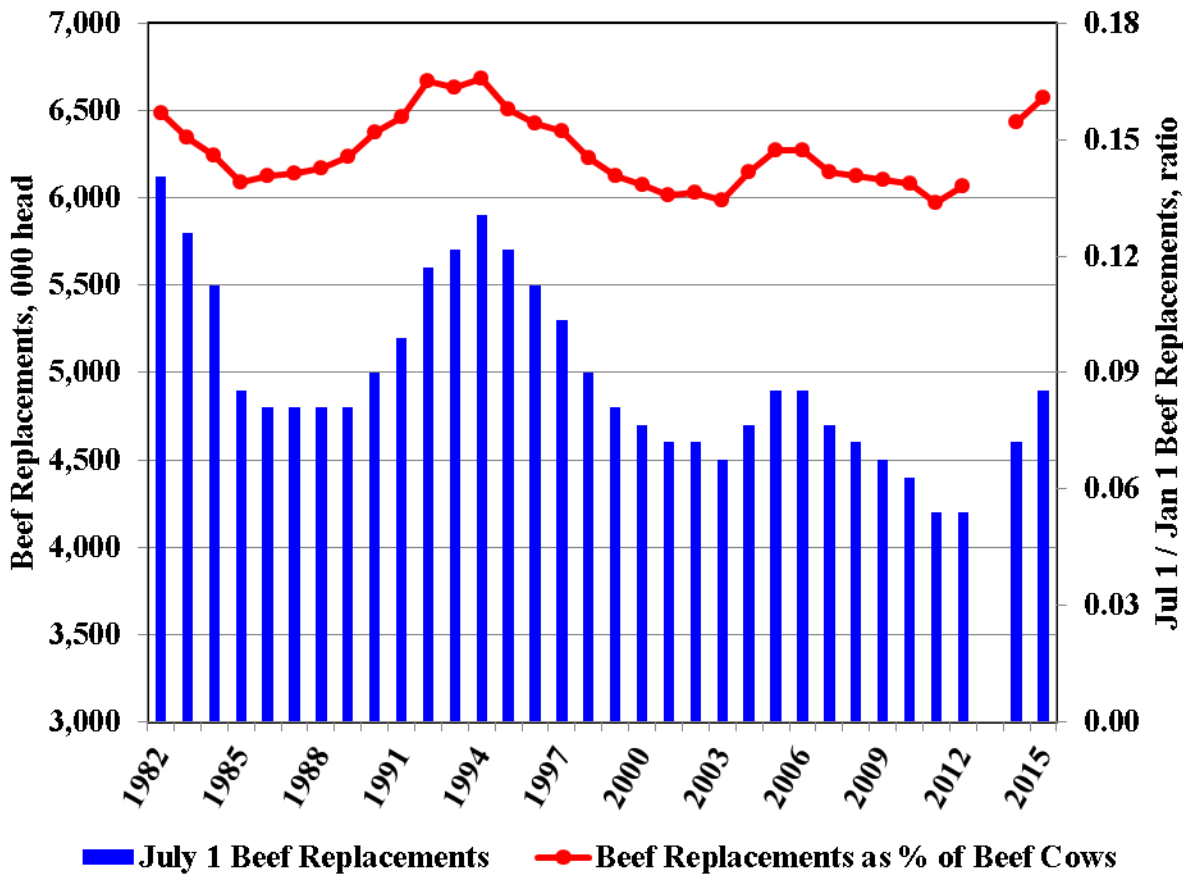
July 1 inventory (000 head)	2014	2015	2015 as % of 2014	Pre-Report Range *	Pre-Report Estimate *	Actual - Estimate
Cattle and calves	96,300	98,400	102.2	101.2 - 102.2	101.8	0.4
Cows and heifers that calved	39,000	39,800	102.1	101.5 - 103.3	102.3	-0.2
Beef cows	29,750	30,500	102.5	101.9 - 104.2	102.8	-0.3
Milk cows	9,250	9,300	100.5	100.4 - 100.6	100.5	0.0
Heifers 500 pounds and over	15,600	15,900	101.9	100.1 - 102.4	101.2	0.7
For beef cow replacement	4,600	4,900	106.5	102.3 - 109.3	105.9	0.6
For milk cow replacement	4,100	4,200	102.4	99.3 - 101.3	100.3	2.1
Other heifers	6,900	6,800	98.6	97.9 - 100.0	99.0	-0.4
Steers 500 pounds and over	13,700	14,100	102.9	100.2 - 102.9	101.6	1.3
Bulls 500 pounds and over	1,900	1,900	100.0	100.0 - 102.6	101.5	-1.5
Calves under 500 pounds	26,100	26,700	102.3	100.8 - 102.3	101.6	0.7
Cattle on feed	11,900	12,100	101.7	99.9 - 102.2	101.6	0.1
Calf crop	33,900	34,300	101.2	100.8 - 102.7	101.7	-0.5

Source: USDA-NASS. * Urner Barry.

Now that the industry has mid-year estimates it will be important to pay close attention to what is happening with the breeding herd. Year-to-date beef cow slaughter is 16.8% below 2014 levels and 31.1% below the 2009-13 average. However, beef cow slaughter is not the only way to gauge within year inventory changes because slaughter levels may be lower than in the recent past simply because there are fewer beef cows. Through the first 28 weeks of 2015 the beef cow culling rate (year-to-date beef cow slaughter as percent of the January 1 beef cow inventory) is 4.1%. This is the lowest 28-week culling rate since 2005 and suggests culling rates will be below the 8.8% realized in 2014. A second consecutive year of single digit culling rates at these levels would be consistent with the early stages of accelerated expansion.

The estimate of heifers held for beef cow replacement is higher than the 2014 estimate and is at par with 2005 and 2006 levels (the last time the industry expanded) confirming “real industry-wide expansion” is underway (figure 2). The increase in heifers held for beef cow is consistent with the July Cattle on Feed report estimate for heifers on feed which was down 7.5% from year ago levels. At the beginning of the third quarter of 2015, 32.5% of cattle placed on feed were heifers, which is lower than any value in the third quarter in the history of the data back to 1996. Through increased heifer retention cattlemen have collectively continued to add youth to the national breeding herd. The inventory of beef replacement heifers as a percent of beef cows, at 16.1% is the highest in 20 years and consistent with levels during the large expansionary phase experienced in the early 1990’s.

Figure 2. U.S. Heifers Held for Beef Cow Replacements

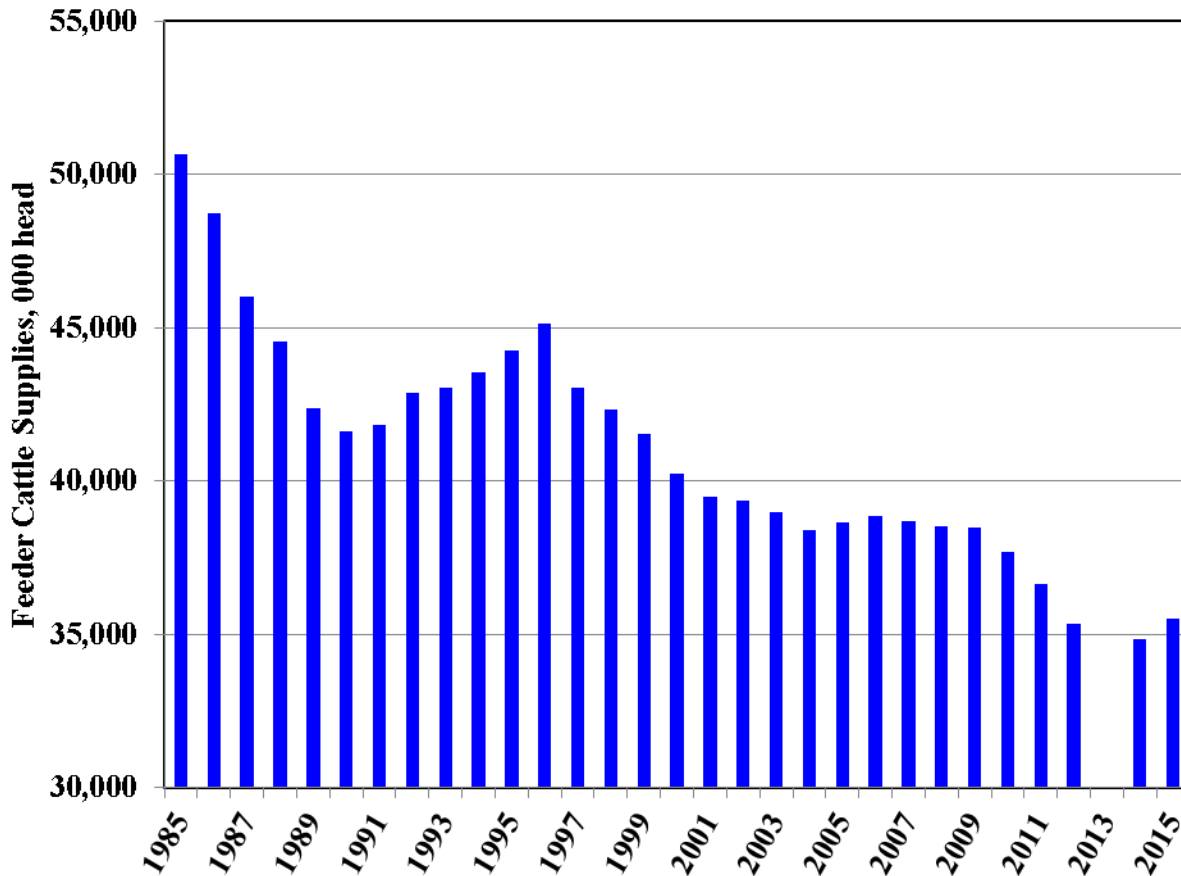


Data Source: USDA-NASS.

The July Cattle report contained USDA’s first estimate of the 2015 calf crop and it came in at 34.3 million head, 1.2% higher than that of 2014. Should this estimate of the calf crop prove accurate, 2015 will mark the first year of over 1% year-over-year growth in the calf crop since 1994. Also if accurate, the 34.3 million head calf crop would imply a calf crop percentage (calf crop as a percent of January 1 total cows) of 87.9%, a number on the low side given the total cow inventory. As such, USDA’s final estimate of the 2015 calf crop, released in January 2016, could very well be larger than this initial estimate.

The combined inventory of steers 500 pounds and over, other heifers 500 pounds and over, and calves under 500 pounds was up 1.9% from the previous year. After accounting for cattle already in feedlots, the supply of feeder cattle outside feedlots at 35.5 million head was 2.0% higher than a year ago (figure 3). These feeder cattle supply numbers, though larger than last year, are still at historically tight levels. Feeder cattle supplies have been within the range of 34.87 and 35.50 million for the past four years. The average of those four years (35.25 million) is 8.4% lower than the average for 2004 through 2010—the last years of “elevation” in feeder cattle supplies.

Figure 3. July 1 Feeder Cattle Supplies — Residual, Outside Feedlots, U.S.

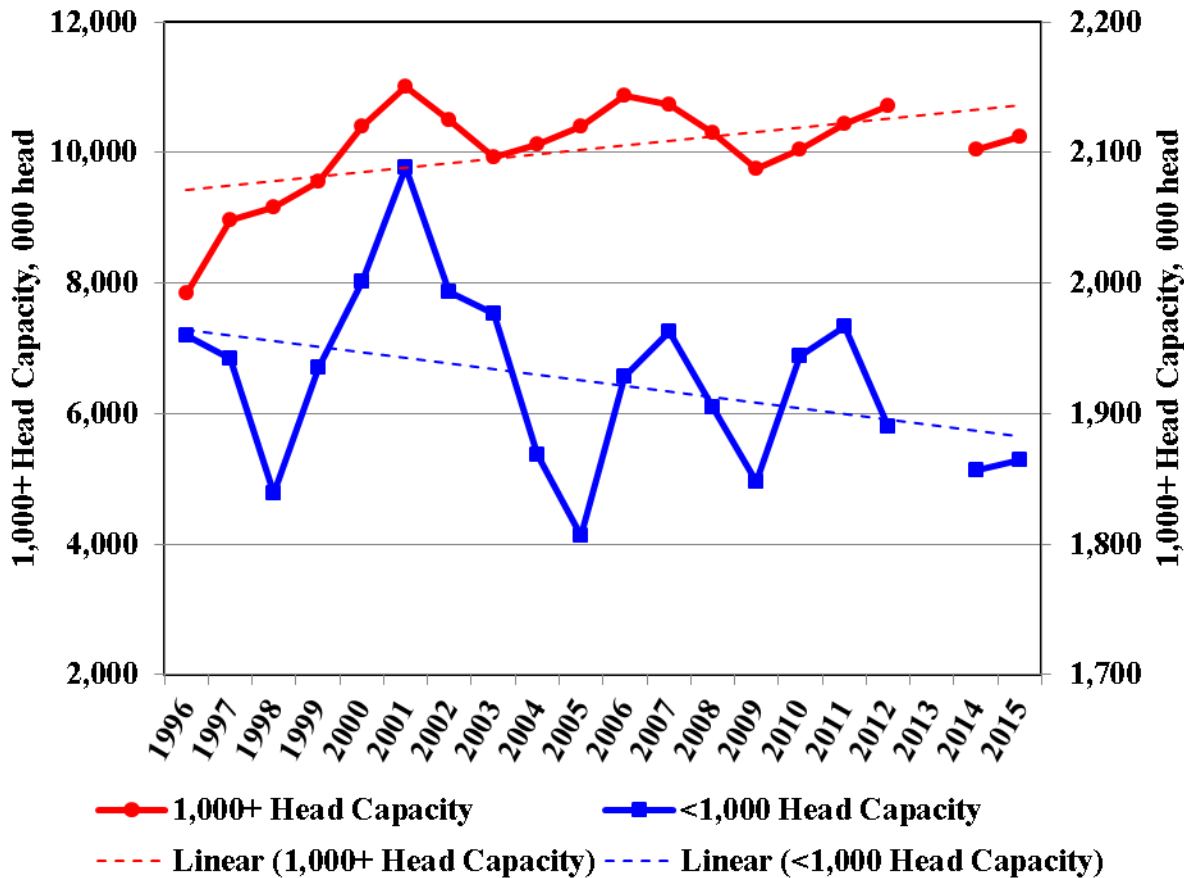


Source: USDA/NASS.

Much of the year-over-year increase in feeder cattle supplies is bolstered by the 2.3% increase in calves under 500 pounds highlighting the effect of an increasing calf crop. However, with a majority of the increase in feeder cattle supplies being in calves that will be placed late in the year and into next year this will affect 2016 beef production more than 2015 beef production.

The cattle on feed inventory for all feedlots was 12.10 million head, 1.7% higher than a year ago. It only happens twice a year that we get estimates of the total cattle on feed inventory (from the Cattle report) and the inventory of cattle on feed in 1,000+ head capacity feedlots (from the monthly Cattle of Feed report). The number of cattle on feed in feedlots with 1,000+ head capacity was estimated at 10.236 million head, 1.9% higher than July 1, 2014. This puts the July 1, 2015 estimate of cattle on feed in feedlots with <1,000 head capacity at 1.864 million head, 0.4% higher than a year ago (figure 4). Cattle on feed in feedlots with capacity of 1,000+ head accounted for 84.6% of the total cattle on feed on July 1, 2015, up slightly from a year ago. This suggests we may continue to see the <1,000 head capacity feedlots becoming a smaller portion of the U.S. cattle feeding business.

Figure 4. U.S. Cattle on Feed by Capacity, July 1



Data Source: USDA-NASS.

The latest Cattle Inventory report does not change supply-side expectations much, if any, since estimates were, by and large, near what analysts expected to see. Furthermore, the fact that beef cattle inventories are increasing does not change the timing of expected beef production increases. Beef production is expected to decrease another 1-2% in 2015 following the 5.7% year over year decrease in 2014. Commercial slaughter will likely decrease 3-4% in 2015 with fewer cows and heifers in the slaughter mix. Average dressed weights will remain large following the sharp increase in late 2014 and will likely average 1-2% higher in 2015.

Current market fundamentals suggest live cattle prices at \$148-151/cwt for 2015.Q3, \$153-157/cwt for 2015.Q4, \$153-158/cwt for 2016.Q1, and \$152-158/cwt for 2016.Q2. Feeder cattle prices, 7-800#, are forecasted at \$210-214/cwt for 2015.Q3, \$206-211/cwt for 2015.Q4, \$207-215/cwt for 2016.Q1, and \$210-218/cwt for 2016.Q2.

Lee Schulz

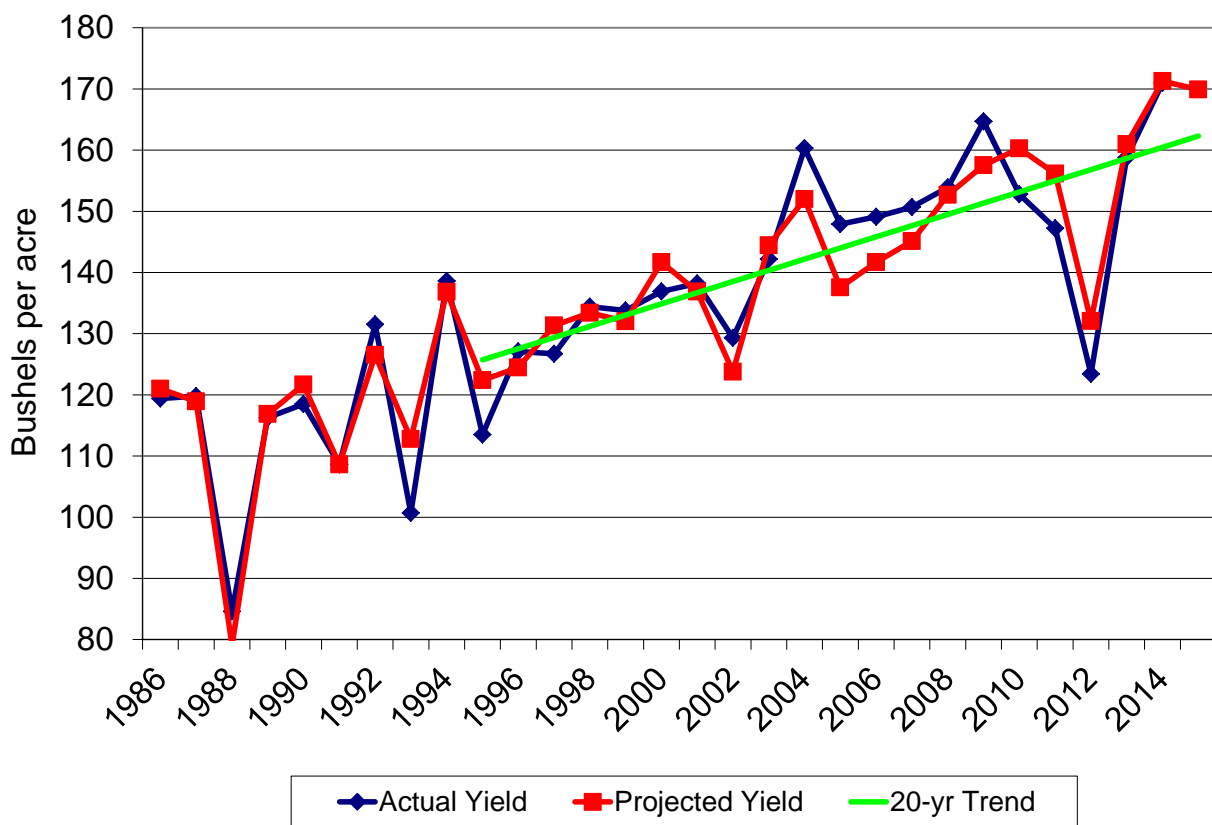
The Great Debate: Does Too Much Rain Make Too Little Grain?

Over the past few weeks, I've had the opportunity to travel and observe crop conditions across much of the country. From flooded fields and drowned-out spots in Missouri to parched fields in the Central Valley of California, Mother Nature has had farmers on their toes. When I've been asked to describe the corn and soybean crops, my usual line this year is that we see too many shades of green in the fields. Normally by this time of year, the crops have evened out more. Heights become more uniform and the landscape is of one shade of green. Not this year. From the disparities in planting to the inconsistencies in moisture and nitrogen, this year's crops provide a full spectrum of the color green. And that makes crop production estimates pretty hard to pin down this year.

And for the most part, it is a directional argument. The northern and western Corn Belt has settled in with drier summer and favorable crop conditions. The southern and eastern Corn Belt has dealt with wave after wave of rain, which first delayed planting and now limits growing degree days. Looking at corn, the last Crop Progress report in July showed the percentage of the crop rated Good to Excellent was 83% in Iowa, 87% in Minnesota, 80% in North Dakota, and 82% in Wisconsin. However, it also showed that significant issues in other states. The Good to Excellent corn rating was 57% in Illinois, 46% in Indiana, 51% in Missouri, and 47% in Ohio. Soybean crop ratings are following a similar pattern.

In years past, I have used a simple yield model based on the USDA crop conditions report and a time trend to get a feel for projected national yields. Figures 1 and 2 show these crop yield models as they stand today (July 31). For corn, the nationally weighted Good to Excellent rating stood at 70%. That's 5 points behind last year's record crop, but it's 6 points better than the long-run average (since 1986, as far back as USDA's online database goes for crop ratings). As Figure 1 shows, this crop conditions model has put the national average corn yield around 170 bushels per acre. However, Figure 1 also shows the crop conditions model can have some big misses. One of the years I have been keying off of is 2010. It was another year started wet, but crop ratings were better than average. In the end, the wet start, delayed planting, and warmer August nights (shortening the grain fill period) contributed to a national yield that was roughly 8 bushels below the model's projection. If we were to have a similar shift in 2015, that would bring the national corn yield to 162 bushels per acre.

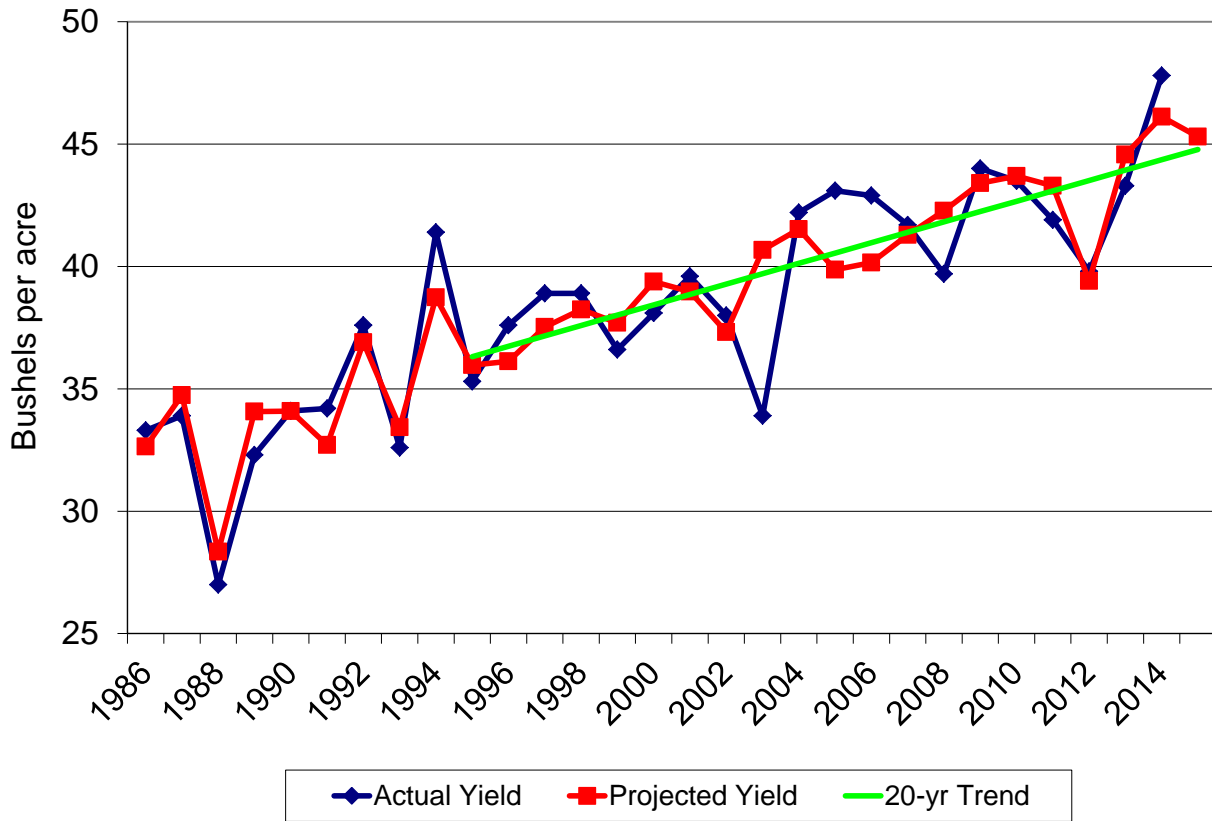
Figure 1. Corn yield projection, based on crop conditions.



For soybeans, the nationally weighted Good to Excellent rating stood at 62%. That's 9 points behind last year's record crop, but it's 3 points better than the long-run average. As Figure 2 shows, this crop conditions model has put the national average soybean yield around 45 bushels per acre. That is in line with the 20-year trend.

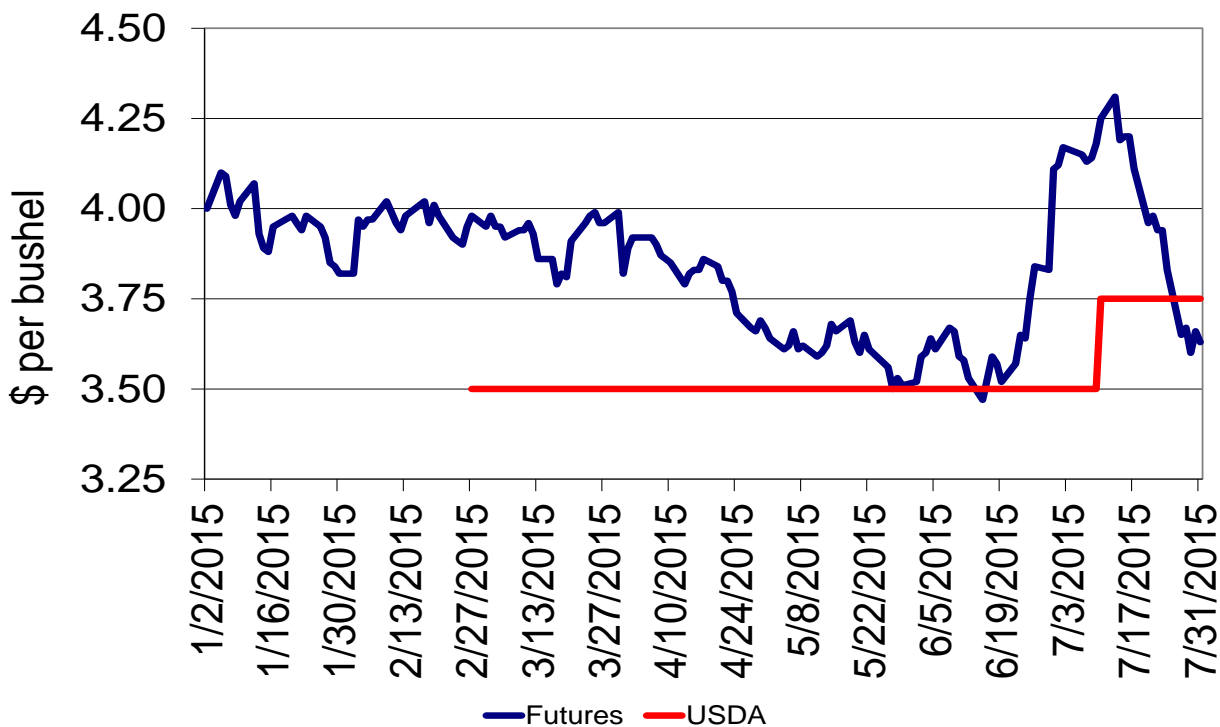
These projections still place the 2015 crops in strong territory as the markets would be dealing with the 3rd largest corn crop and 2nd largest soybean crop on record. But with demand holding up fairly well over the past year, the markets have also been able to rally on weather fears.

Figure 2. Soybean yield projection, based on crop conditions.



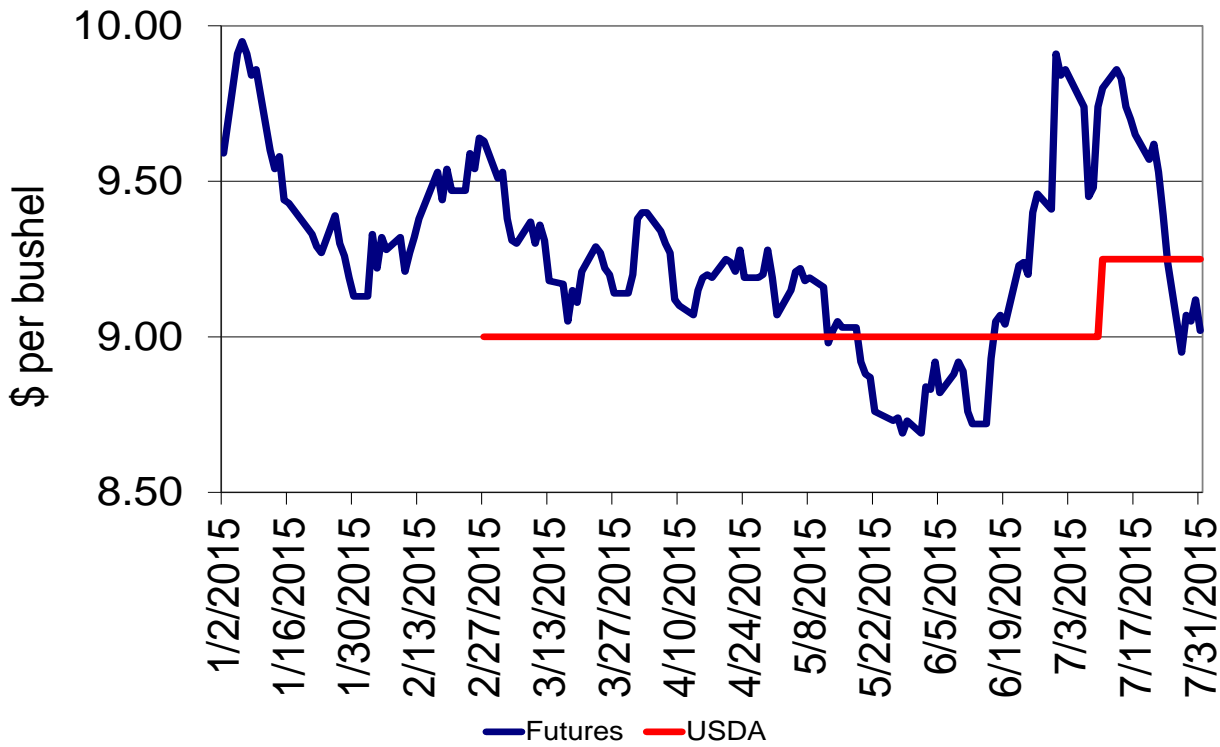
As like last year, over the course of the summer, USDA and the futures market for corn have traded positions. Early in the summer, futures offered a rosier outlook for corn than USDA did. Now, USDA offers the better outlook. USDA’s current projection for the 2015/16 season-average price sits at \$3.75 per bushel. The futures market is floating in the \$3.65 range. As recently as two weeks ago, futures has pushed into the \$4 range, but the potential of northern Corn Belt production, in combination with concerns about international demand, has brought prices down.

Figure 3. Projected 2015/16 season-average prices for corn.



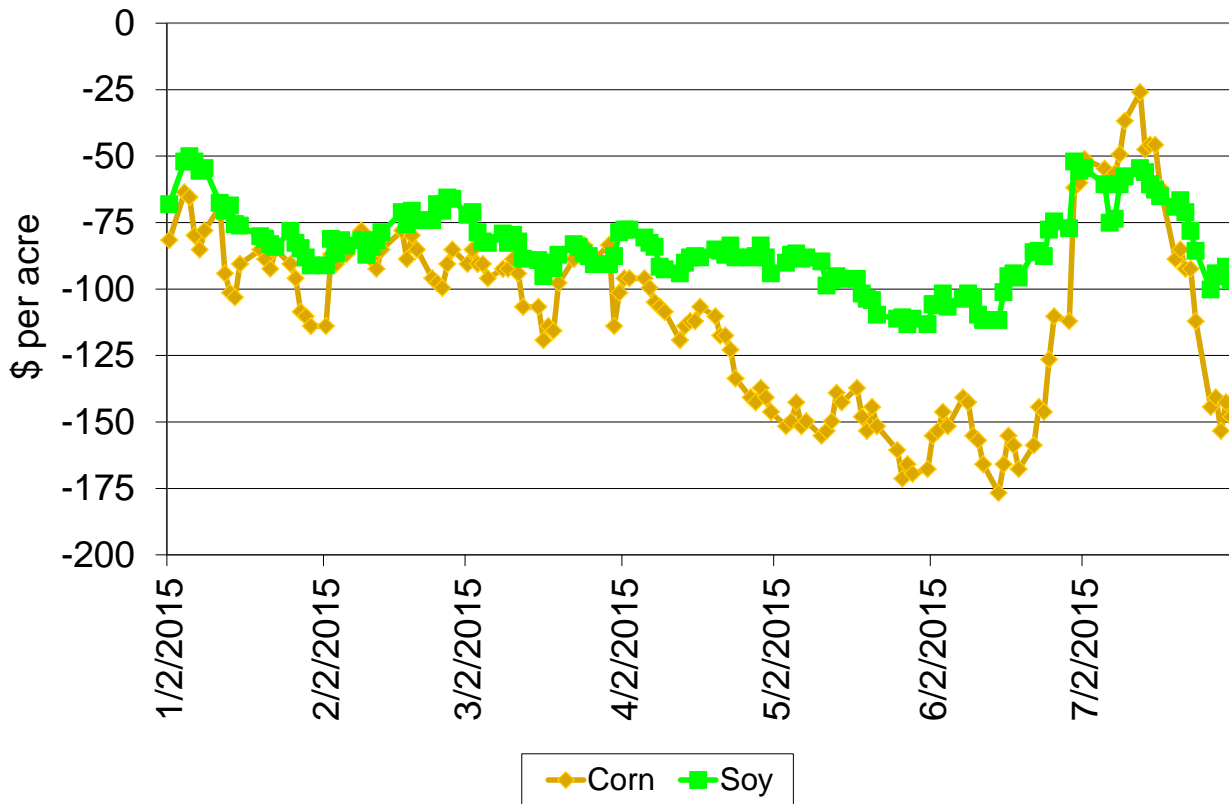
For soybeans, the mid-summer rally pushed the season-average price projection from futures up roughly \$1 per bushel, approaching the \$10 range. But a similar slump to that in corn has the futures-based season-average price estimate around \$9 per bushel, while USDA's current estimate is \$9.25 per bushel.

Figure 4. Projected 2015/16 season-average prices for soybeans.



The price rallies provided a decent opportunity to market some crop. Based on ISU production costs estimates from earlier this year of \$4.50 per bushel for corn and \$11 per bushel for soybeans, 2015 crop margins have consistently been in negative territory. The mid-July rally was the closest we had gotten to breakeven all year. But with the recent swoon in prices, soybeans are roughly \$100 per acre in the red, while corn is \$150 per acre in the red. The 2015 crop year is shaping up to be another year of losses in the crop ledger, barring a significant cut in yields. The carry in the corn market does offer some hope for those storing the crop, but the same cannot be said for soybeans. The expansion of soybean acres in the U.S. and the concerns about the Chinese economy have stripped the carry from the market. So much so that the early futures prices for the 2016 crop are well below nearby futures.

Figure 5. 2015/16 projected crop margins.



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