

Iowa Farm Outlook

Department of Economics
Ames, Iowa

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More Cattle Mid-Year, Lightweight Placements Up

USDA recently released two reports estimating July 1, 2017 cattle inventories—the July Cattle report (also referred to as the mid-year cattle inventory report) and the July Cattle on Feed report. July is one of USDA's larger months for providing surveyed cattle numbers, the responses confirm that U.S. cattle inventories are growing.

Mid-year cattle inventory data identify changes in the size of the breeding herd, update cattle and beef availability expectations for the next 12 months, and provide the first estimate of the current year's calf crop. The July survey is not as comprehensive as the one done in January. The January survey is the larger of the two surveys and includes about 38,000 cattle operations of all sizes. Estimates are made for all states. The July survey includes a list sample of about 10,000 of the larger cattle operations. Estimates are made at the U.S. level only.

Missing from the data are the July 2013 and 2016 Cattle reports. USDA suspended the mid-year survey and subsequent report in these years after reviewing available fiscal and program resources.

Pre-report estimates of the 2017 mid-year report were not readily available this year. Analysts rely heavily on previous reports, especially the most recent one, to make projections. Missing data make projecting difficult. Also, not having the most recent report complicates making year over year comparisons, a standard measuring stick for quantifying changes.

Continuity in reports is critical for conducting market analysis and evaluation. With the dramatic adjustments in cattle prices in recent years, cattle producers are understandably very interested in the status of herd rebuilding as they make decisions that will position them for production in 2018 and beyond. USDA conducted the survey this year and the results were published on July 21. Let us hope this starts another run in continuity of the report which dates back to 1973.

The July survey asks producers to report the calf crop for the entire year of 2017. It came in at 36.3 million head, up 3.5% from 2016 (which was reported in the January report). The ratio of the July beef cow inventory to the January level was the highest since 1993, the last period of full-fledged expansion in the industry and a level that confirms expansion is continuing in 2017. The ratio of July beef replacement heifers to the January number was the lowest in the data series, suggesting that heifer retention is slowing. It almost certainly had to slow after several years of historically high heifers held for replacements. The total inventory of all cattle and calves for July 1 was 102.6 million head, the largest since 2008.

Feedlot placement puzzle

Cattle on feed for slaughter in all feedlots July 1, 2017 totaled 12.8 million head. The estimated July 1 feeder supply outside feedlots was 37.0 million head. In relation to the USDA July Cattle on Feed report, surveyed feedlots with capacity of 1,000 or more head indicated cattle on feed were up 4.5% from July 2016.

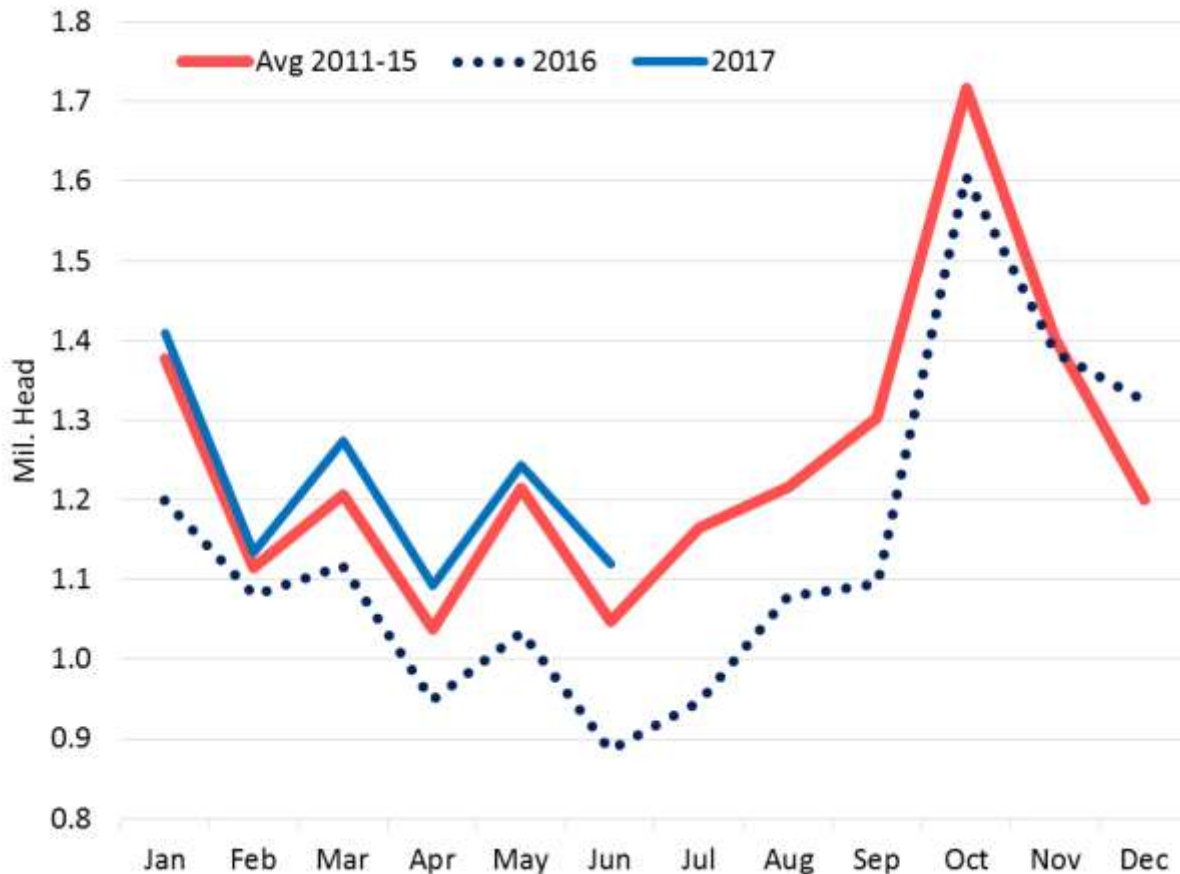
The most influential, and surprise, information from the Cattle on Feed report was that June 2017 placements topped June 2016 placements by 16.1%, fully 10% higher than pre-report expectations. The important question is whether the placement surge resulted from pulling feeder cattle ahead or whether feeder supplies are larger than earlier thought. The answer is important for anticipating market impacts of larger placements. The most

likely scenario is that a few more cattle are out there than anticipated, but most of the surge came from feeders being pulled forward.

Feedlots have placed more lightweight cattle. In June, placements of feeders under 600 pounds were up 29.3% year over year. Placements at 600 to 699 pounds were up 23.5%, and placements 700 to 799 pounds were up 26.5% (Figure 1). Placements over 800 pounds were up only 1.6% in June.

Heifers on feed July 1 totaled 3.86 million, up 10.6% from 2016 and the largest since 2012. That rise supports the idea that cow-calf producers are retaining fewer heifers as replacements. Heifers not going into cow herds boost feeder cattle supply and placements.

Figure 1. Cattle Placed Weighing Less than 800 Pounds, U.S. 1000+ Capacity Feedlots



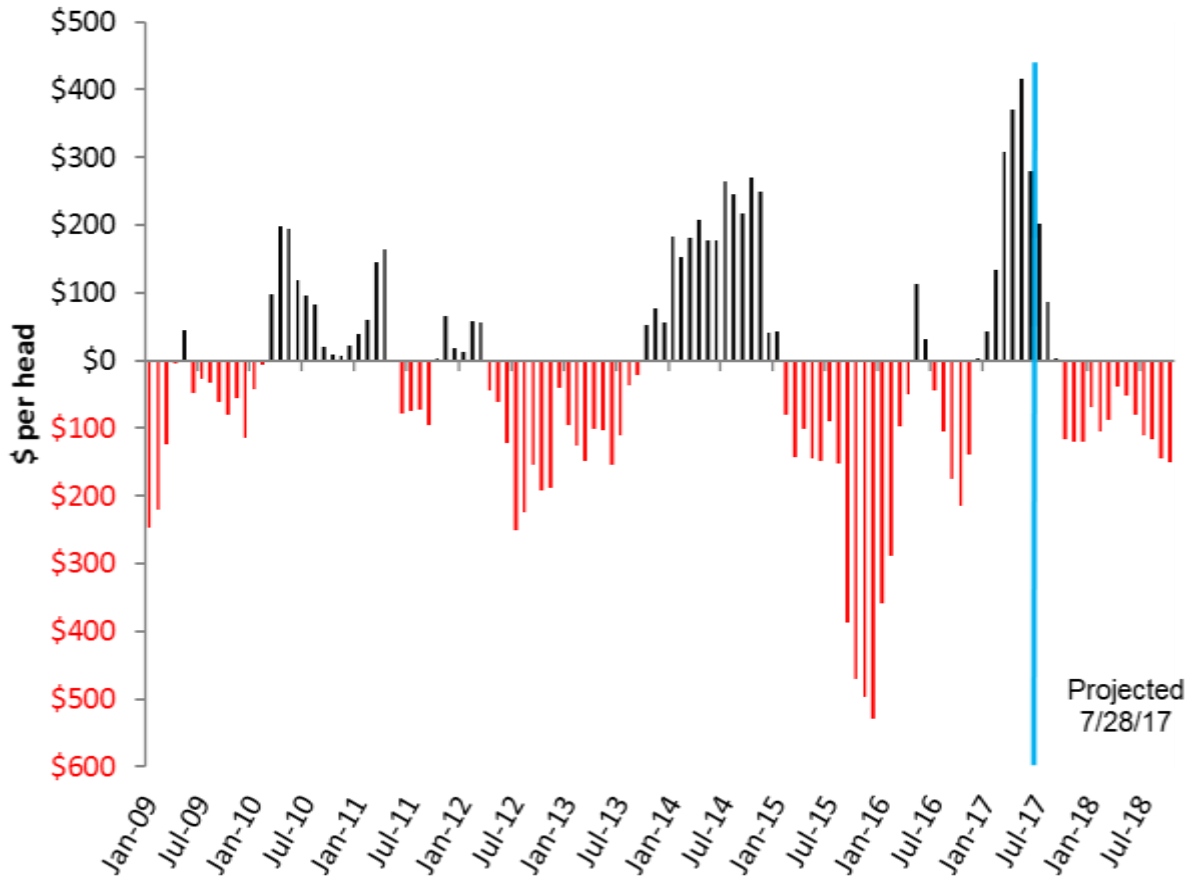
Data Source: USDA's National Agricultural Statistics Service

Feeding profit prospects weaken

According to the Iowa State University Estimated Livestock Returns, yearling to finish returns averaged \$259 per head for the first six months of 2017 (Figure 2). Profits enabled feedlots to aggressively buy feeders. Higher placements, especially lightweights as of late, have been encouraged by price differences between heavy and lightweight feeders. For example, combined Iowa auction (USDA AMS report NW_LS795) calf prices peaked in late April and have trended gradually lower since then. Heavier weight feeder cattle prices have continued a gradual climb.

The lightweight placements in June will not be on top of earlier heavy weight placements. Larger placements now from producers pulling feeders ahead imply relatively fewer cattle will be available to place later.

Figure 2. Estimated and Projected Returns to Finishing Yearling Steers, Iowa



Source: Iowa State University Estimated Livestock Returns

The considerably larger June placements in feedlots with capacity of 1,000 or more head are only part of the story. Iowa is the only state that conducts a monthly survey of less than 1,000 head capacity feedlots and reports these estimates. Trends in cattle feeding become clearer when looking at this whole picture. In Iowa, June placements were up 33.3% year over year in 1,000 head or more capacity feedlots but were down 29.4% in less than 1,000 head capacity feedlots. In total Iowa placements were up only 2.9% in June compared to year ago levels. Smaller feedlots may be responding to economic signals from the marketplace as estimated yearling to finish returns are projected at a loss of \$119 per head in the fourth quarter of 2017 with continued negative returns projected for 2018. Farmer feeders are more flexible. They tend to feed cattle when the market conditions are favorable. When conditions are less favorable, they leave lots empty and sell calves and corn. Feeder cattle prices tend to advance seasonally from now through fall. The feeder cattle market will be sensitive to how the 2017 corn crop develops as well as whether profitability prospects return to cattle feeding.

Lee Schulz

The Market Is Still Not Sure About Crop Production

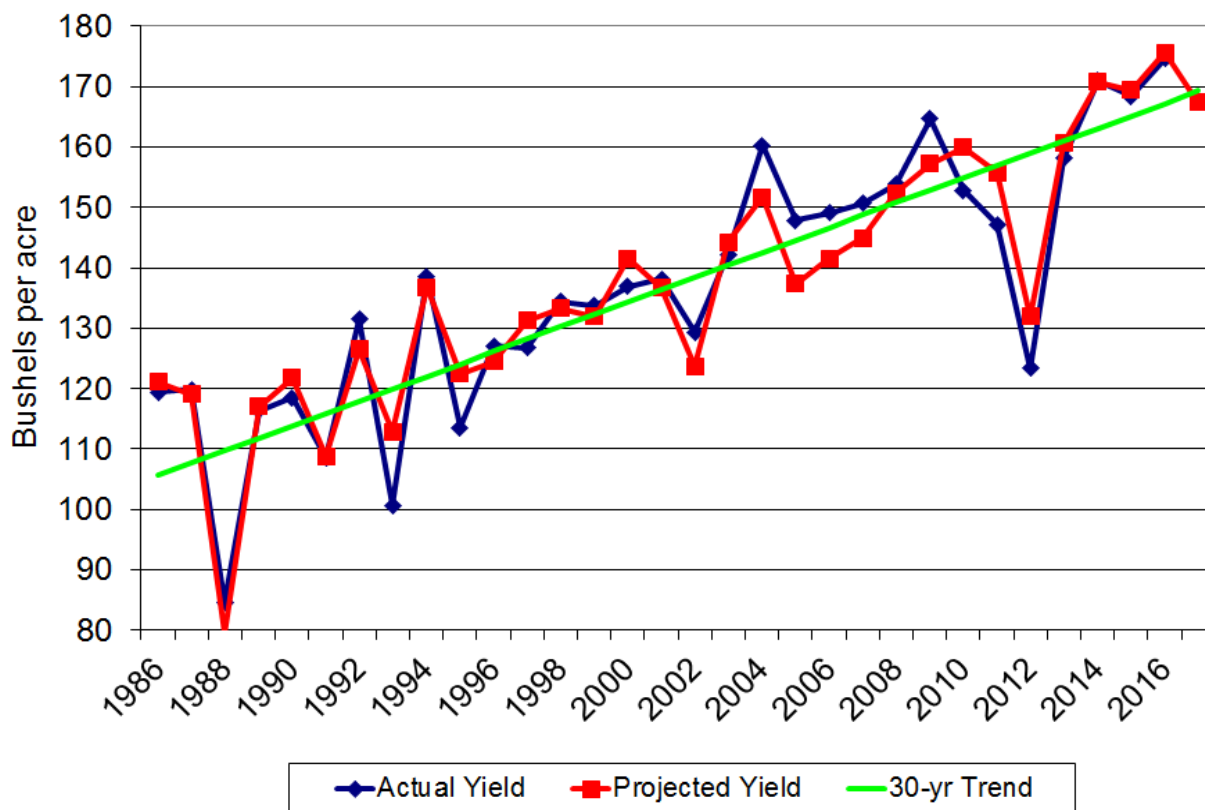
Bulls and bears have found plenty of arguments to back their market positions. Bulls point to drought conditions in Iowa and the strength of crop demands. Bears lean on the information that national crop ratings are still hovering around the 5-year average, holding up the potential for another big set of crops, and weakness in advance export sales. And since both camps have good data to back their positions, the markets then turn to the latest weather forecast to tip the scales. There is still a weather premium built into the crop markets, smaller than the bulls would like, but larger than usual given the potential size of the crops. So the crop markets remain in a state of flux, ready to run somewhere, but just not sure where. If the drought conditions in Iowa hold and spread, there is definite upside price potential. However, if timely rains occur, we're set up for another replay of the pricing pattern of the last few years, with crop prices headed back below breakeven levels. And arguably, the pricing challenges are harder this year as basis levels have remained wider than usual, reducing the pricing

opportunities from the weather premium in the futures markets. Last year's bumper crops led to this year's large supplies of unpriced corn and soybeans still in the bins (even after the 4th of July). With a lot of old crop still sitting in the countryside, there is no reason for basis levels to improve in the near term.

As has been the case for the last few years, crop demands have not been a problem. USDA continues to project record soybean demand and very strong corn demand. Livestock feed demand is supported by the expansion across the livestock complex. Current projections show growth for the cattle, hog, and poultry sectors for the rest of this year and for next year. Biofuel demand growth has continued in 2017. The ethanol industry is still on a record production pace for the year. Meanwhile, the biodiesel industry may get a boost from the recent court restoring some of the biofuel gallons cut from the Renewable Fuels Standard over the past three years. And the current pace of crop exports is strong enough to maintain the record string of soybean export levels, while corn exports will be the 2nd highest in history. Right now, the biggest hurdles on the demand side are the slower pace of advance export sales for the upcoming crops and the concerns about the potential impacts of trade agreement renegotiations.

While the demand story is a good one to tell, the markets are much more focused on supply. As of July 31st, 61% of the nation's corn crop and 59% of the nation's soybean crop was rated "Good" to "Excellent" in the USDA Crop Progress report. Those ratings are down significantly from last year, but last year was a record crop. In comparison to the 5-year average, both crops have roughly followed the average pattern. Over the past few summers, I have used the late July crop conditions reports to project the size of the upcoming crops. And the projections this year show crops that are hovering just below the trendline. Figures 1 and 2 show the results of those projections for the upcoming harvest. In the figures, the smooth green line represents the 30-year trend for yields, the blue line with diamonds provides the actual yields since 1986, and the red line with squares shows the projected yields based on the crop conditions.

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

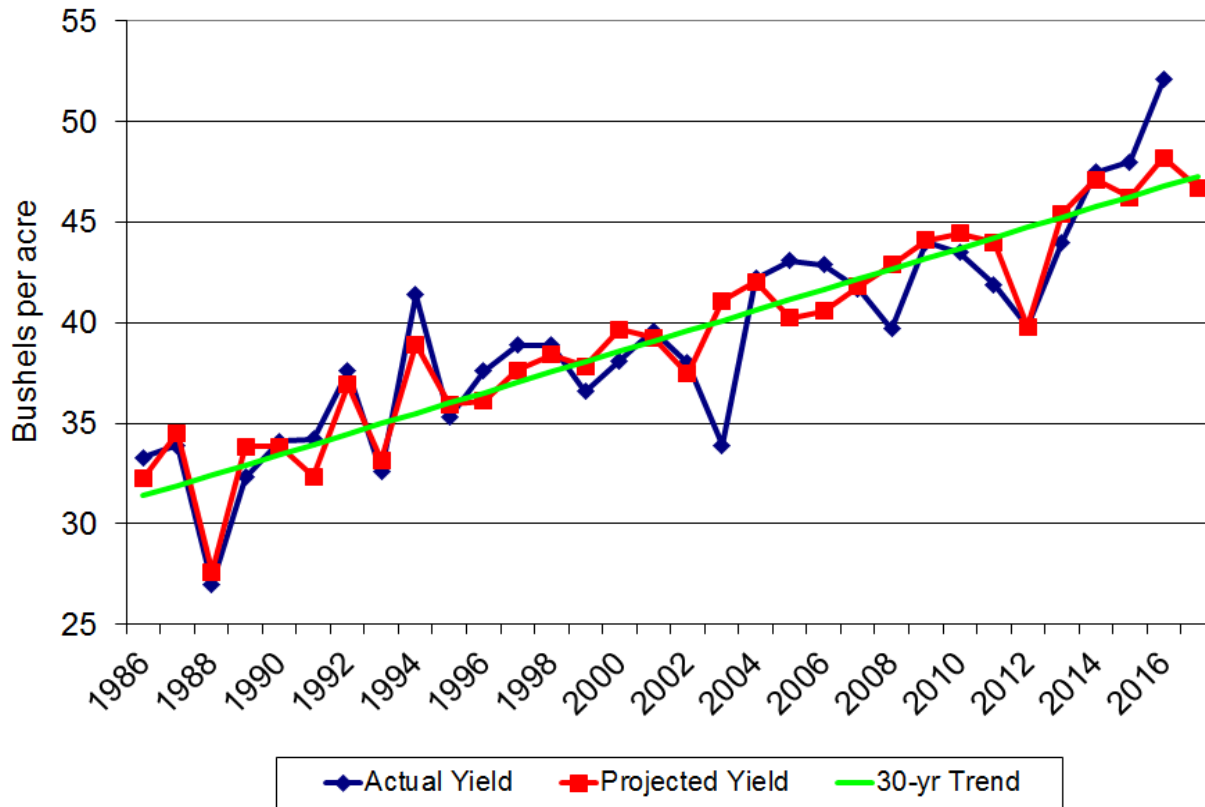


For corn, the 61% Good to Excellent rating translates to an average national yield of 167.5 bushels per acre. If realized, that would be approximately 7 bushels below last year's record yield of 174.6 bushels per acre and roughly 2 bushels below the 30-year trend. Given the 91 million acres planted to corn this spring, that would also indicate potential production of 14 billion bushels this year, making it the 3rd largest corn crop ever. As the

graph shows, there are a few years where the model will over-estimate yields, for example, 2010-2012. But the model has been fairly accurate for the last four years.

For soybeans, the 59% Good to Excellent rating points to a national yield of 46.5 bushels per acre. It would be the 4th highest national soybean yield, trailing only the 2014-16 crops. But with the increase in soybean planting this year, production will again exceed 4 billion bushels. And unlike the corn model, the soybean model exhibits much more noise in the estimates. August and September precipitation will greatly affect the yield outlook.

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



The combination of the weather premium in corn futures and the wider basis levels due to large corn stocks has created a significant gap between USDA's price projection and a futures-based price projection. Given the average 5-year basis, corn futures are pointing to cash prices in the \$3.80 range. Meanwhile, USDA is projecting \$3.30 per bushel for the upcoming corn crop.

For soybeans, the gap between the futures-based projection and the USDA projection has nearly disappeared. Both price indicators are currently hovering in the \$9.40-9.50 range. But we have seen sizable price swings in July and are likely to see a few more in August. After having driven back and forth to southwest Missouri, I can attest to the considerable swings in crop conditions. The weather patterns have created stripes of alternating good and poor crops. The question is whether the good spots can offset the combination of some flooded areas and some drought areas, as the Midwest has both.

And that uncertainty shows up in projected crop margins as well. Concerns about the crops had driven crop margin projections into positive territory. Currently, corn has held on to some profitability, based on Iowa State University production costs, but soybean margins have sunk back below breakeven. The sad part of the outlook is that better price and margin projections hinge on weather problems. Short crops make for better prices. And right now, it looks like many Iowa producers would have to face continuing weather problems to get the higher prices they want.

Figure 3. Projected 2017/18 season-average prices for corn.

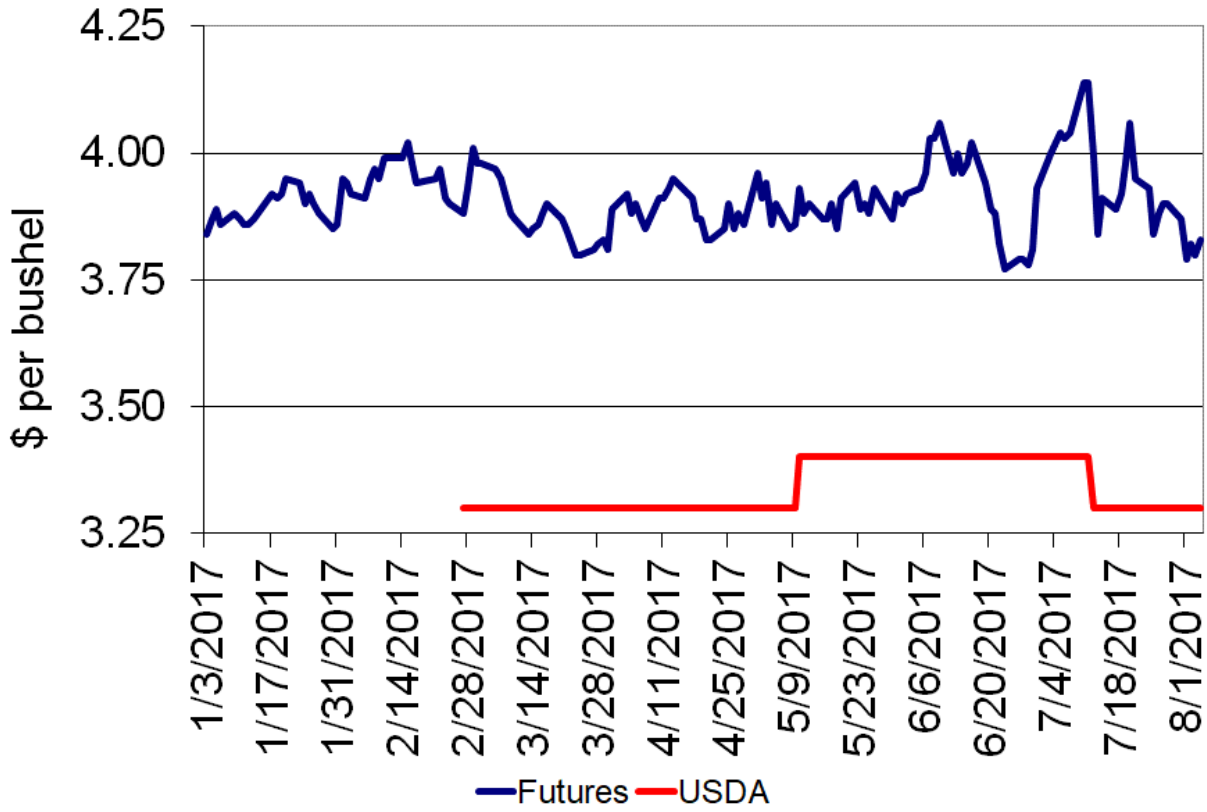


Figure 4. Projected 2017/18 season-average prices for soybeans.

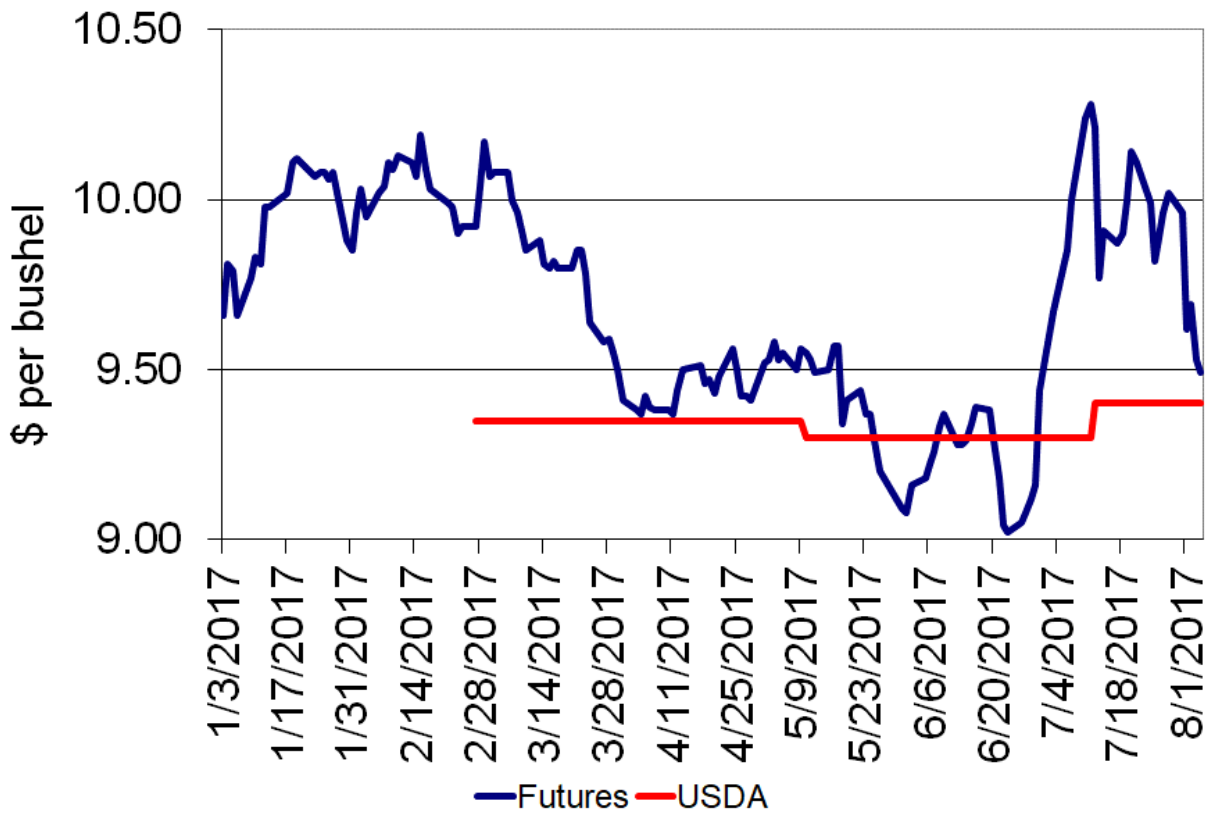
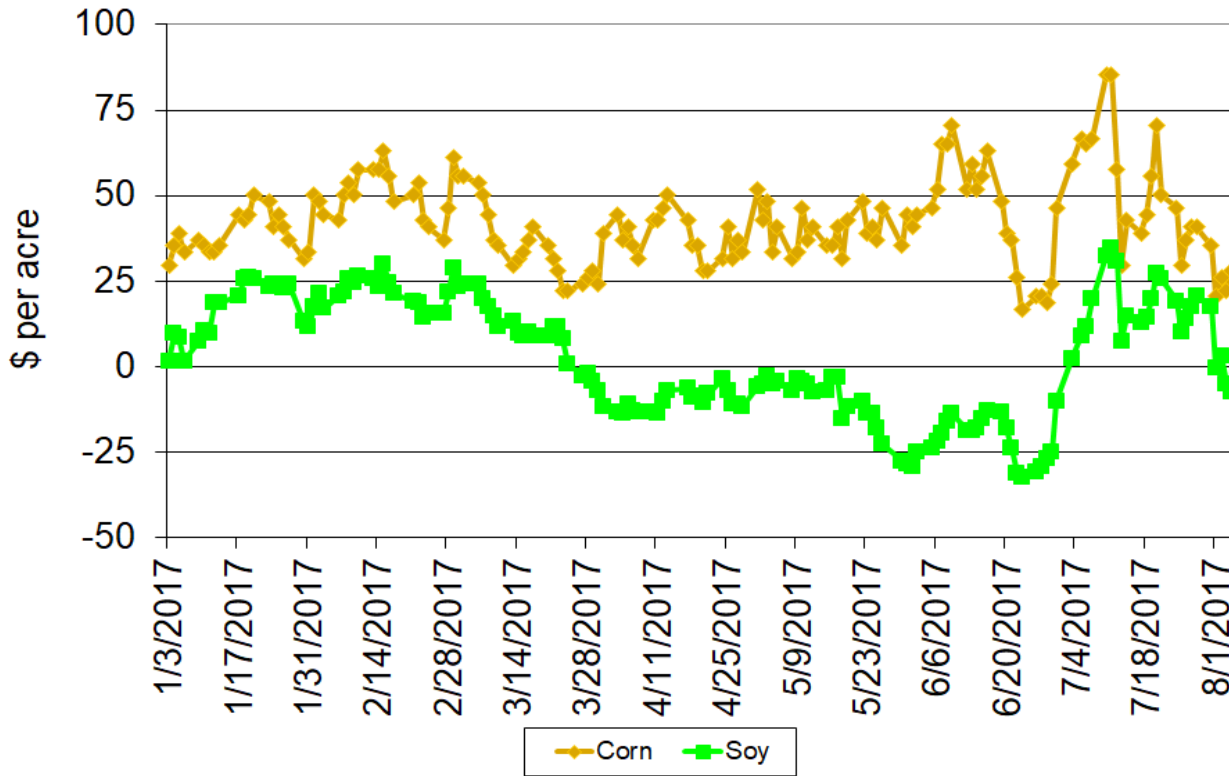


Figure 5. 2017/18 projected crop margins.



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