Variability in Placement Weights and Marketings Contributes to Challenge in Determining Timing of Fed Cattle Production

Analysts routinely use USDA estimates of feedlot placements by weight groups to project timing of fed cattle marketings. Expected slaughter numbers can help improve fed cattle price forecasts and marketing strategies. However, recent variability in placement weights amplifies the uncertainty about the current and coming fed cattle market.

For several months, monthly feedlot placements have tended to swing between larger proportions of lightweight cattle (less than 600 pounds) and placements of heavy feeders (over 800 pounds), often with fewer cattle in the traditional feeder placement weight categories of 600 to 800 pounds. Furthermore, the “tails” of the placement weight distribution add to the difficulty in determining the timing of fed cattle production because no way exists to estimate the average weight in the category, especially for heavy feeders.

July placements consisted of 40.1% of cattle over 800 pounds, the third highest monthly level for the weight category in the history of the data back to 1996. Only April and May 2015 were higher. January through July placements of 800-plus pound cattle averaged 38.1% of the total placements compared to 33.4% for the same period in 2014 (figure 1).

Figure 1. 800+ Pound Placements as % of Total Placements, 1000+ Head Capacity Feedlots

Data Source: USDA-NASS. Compiled and Analysis by the Livestock Marketing Information Center.
A 12-month moving average of placements by weight category confirms that placements of 800-plus pound feeder cattle are currently at a record level. The average weight of this group could vary from just over 800 pounds to over 900 pounds and change the timing of fed cattle marketings by more than a month.

Feedlots continue to have additional production incentives to feed cattle longer and to heavier weights. Limited feeder cattle supplies, near record high feeder cattle prices and lower feed costs all encourage feedlots to feed cattle longer. Doing so keeps feedlot inventories higher relative to feedlot production. In response to higher beef prices, packers have been content to push slaughter cattle to heavier weights. Heavier carcass weights help offset declining cattle slaughter to help maintain beef production.

Analysts often use measures of “currentness” to access whether feedlots are marketing cattle on a timely basis or feeding them longer. So far in 2015, marketings as a percent of feedlot inventories have averaged 15.6% compared to 16.6% for the same period last year (figure 2). Less current cattle marketings generally are negative to market prices.

Figure 2. Fed Cattle Marketings as % of Cattle on Feed, 1000+ Head Capacity Feedlots

Data Source: USDA-NASS. Compiled and Analysis by the Livestock Marketing Information Center.

In pursing market incentives to delay fed cattle marketings and push cattle to heavier weights, feedlots suffer deteriorating performance on cattle currently in the feedlot, but delay the big cash outlay to buy pricey feeder cattle to place. For several months, data from Kansas State University’s Focus on Feedlots have shown that average daily gains are lower year-over-year and feed conversions are higher; both expected outcomes of feeding heavier cattle longer.

As a result, feedlot cost of gain has not retreated as much as lower corn prices would suggest because lower performance is offsetting some of the cheaper feed cost. This tradeoff suggests there is a limit to how far feedlots can push fed cattle weights. It also suggests that the incentive could change abruptly if feed prices were to spike.
Another factor impacting both the level and timing of beef production is the relative role of dairy cattle in total feedlot production. Declining beef cattle inventories and declining veal slaughter (most of which is dairy calves) mean that dairy animals accounted for an increased share of the 2014 calf crop. Dairy calves are typically placed on feed at very light weights and stay in feedlots up to a year. This means relatively large numbers of dairy calves are impacting fed cattle markets in 2015. The Livestock Marketing Information Center estimates an additional 206,000 head of dairy calves will enter feedlots in calendar year 2015 (figure 3).

Figure 3. Additional Dairy Calves to Feedlots, Annual

![Graph showing additional dairy calves to feedlots over time.](image)

Data Source: USDA-NASS. Compiled and Analysis by the Livestock Marketing Information Center.

Lee Schulz

**Big Crop Estimates, Smaller Crop Needs**

The first field-based estimates of the 2015 corn and soybean crops from USDA were released a few weeks ago. What the USDA found was not what the trade had expected. Pre-report estimates showed that the trade anticipated USDA lowering yields, based on troublesome planting and weather conditions, especially for the southern and eastern Corn Belt. And while USDA did find evidence for significantly lower yields in those areas, they also found support for some record yields, mainly in the northern and western Corn Belt. Enough support to raise national yield estimates by 2 bushels for corn and nearly a bushel for soybeans. The markets had been rocking back-and-forth over the past month, trying to decide if too much rain makes too little grain. The USDA reports indicated too much rain can still create a good deal of grain.

The national corn yield is estimated at 168.8 bushels per acre for 2015. That is 2.2 bushels below last year’s record. The result would lead to a national corn crop of 13.69 billion bushels, the 3rd largest corn crop in U.S. history. The state-level corn yield estimates create a pattern like stripes on a flag. The top stripe, consisting of the Dakotas, Nebraska, Iowa, Minnesota, Wisconsin, and Michigan, has projected record corn yields. Below that is a stripe of significantly lower yields in Missouri, Illinois, Indiana, and Ohio. That followed up by another stripe of record yields in Arkansas, Kentucky, and Virginia. Moving further south, there’s another
stripe of lower yields, going from Louisiana to the Carolinas, with a final record yield in Georgia. The consistent storm tracks we experienced this spring and early summer are now showing up in the crop production estimates.

Figure 1. Corn yield projections (Source: USDA-NASS).

Top: 2015 Estimated Yields
Bottom: Change from last year
Units: Bushels/acre

The same pattern also shows up for soybean yields. While the national yield estimate of 46.9 bushels per acre for soybeans is roughly a bushel less than last year, the increase in soybean plantings (compared to last year) help put soybean production near record territory at 3.92 billion bushels. USDA’s resurvey of soybean planting did show fewer soybean acres than the June estimates, but it wasn’t enough to lower production.

Figure 2. Soybean yield projections (Source: USDA-NASS).

Top: 2015 Estimated Yields
Bottom: Change from last year
Units: Bushels/acre
Examining the global production picture, there was some positive news on the corn front as corn production from the rest of the world was projected to be slightly smaller than previously thought. Smaller corn crops are projected in China and Europe. Southern Europe has suffered through excessive heat and dryness this summer, reducing yield potential for spring-planted crops. Partially offsetting this though is an improvement in the outlook for the Brazilian and Ukrainian corn crops. In general, global corn production outside the U.S. is expected to be roughly one percent below last year’s level. Global soybean production is on the rise, as the 2015 global crop looks to be the largest ever. The big move over the past month was the improvement in the Ukrainian soybean estimate, up nearly 7 percent. With year-over-year expansions in Brazil, India, Paraguay, and Ukraine, global soybean supplies will increase.

Along with the yield and production estimates, USDA updated its outlook for crop demand. And that update was mixed. For corn, total demand is still on the upswing, but there is weakness in a key sector. The feed demand estimate for the 2015 crop year was raised 25 million bushels to keep it steady with last year’s 5.3 billion bushels. Projected meat production gains across the livestock sector are fueling this change. While the pork industry’s growth has slowed, a rebound in the poultry sector from avian influenza and a turn-around in the beef industry are supportive for crop demand.

Ethanol continues to hold its own in the fuel market and the increase in miles driven in the U.S. has supported the biofuel industry as production sustains near record levels. Last year, the ethanol industry used 5.2 billion bushels of corn. For the 2015 crop year, the industry is expected to use 5.25 billion bushels. So the market continues to see modest growth in crop demand via fuel.

The weak link is in international demand. USDA’s update reduced export demand by 25 million bushels, reducing the total to 1.85 billion bushels, steady with last year. Global economic concerns, such as the situations in Greece and China, combined with the strength of the U.S. dollar, are seen as significant deterrents to growth of international demand. This slowdown has already showed up as we look at advance export sales. Corn sales thus far are lagging behind the pace set over the past couple of years.

Figure 3. 2015/16 advance export sales for corn (Source: USDA-FAS).
As with corn, soybean demand is mixed, but the overall picture is lower. Domestic crush continues to build. The feed and biofuel sectors are promoting that growth. Over the last two years, domestic soybean demand has increased by 125 million bushels. But export demand is projected to fall. The concerns about China, the growth in global soybean production, and the slow pace of advance sales are the main drivers. USDA reduced export projections for 2015 by 50 million bushels to 1.725 billion bushels. That is 100 million bushels below the export level from 2014. And again, we can already see the export slowdown. Advance sales are roughly 300 million bushels behind the pace of the past couple of years.

**Figure 4. 2015/16 advance export sales for soybeans (Source: USDA-FAS).**

The combination of supply growth and relative demand weakness means that ending stocks are rising. Soybean ending stocks for 2015/16 are set at 470 million bushels, nearly double the figure for 2014/15. Corn ending stocks are projected at 1.713 billion bushels, up over 100 million bushels from last month’s estimate.

And with higher stock levels comes lower price projections. For both corn and soybeans, USDA lowered the season-average price projection by 10 cents per bushel. Corn is projected at $3.65 per bushel. Soybean prices are targeted around $9.15 per bushel. So both crops are expected to have lower prices for the 2015 crops than they had in 2014. The futures market has discounted prices to levels below USDA’s projections. As we close out August, the futures point to season-average prices around $3.55 for corn and $8.40 for soybeans. And the longer-term outlook isn’t much better from futures. Using futures to project season-average prices for 2016 crops yields $3.80 for corn and $8.40 for soybeans. So there’s a little recovery for corn, but soybean prices remain flat. Over the last couple of years, crop returns have suffered as supplies exceeded demand. These latest reports indicate that pattern continues.

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