

# 2016 US Beef Cattle Market Outlook<sup>1</sup>

Chris Prevatt<sup>2</sup>

## Overview

US cattle markets have experienced a roller coaster ride over the last several years. Cattle prices have been supported by a declining US beef cow herd and strong beef demand. The record-setting droughts in 2011 and 2012 forced US beef cow herd liquidation, leading to lower supplies of beef. US beef demand has enjoyed moderate growth despite a slow US economic recovery.

The turning point in the US cattle industry occurred on January 1, 2015, when the USDA showed its first year-over-year increase in cow inventories since 2005. This is because the breeding herd has entered the expansion phase of the cattle cycle, meaning beef supplies will increase. Assuming continued high calf prices, adequate moisture conditions, above average forage production, and lower feed costs, herd expansion is estimated to continue. Consequently, as herd expansion continues, a transition to cyclically lower cattle prices on an annual basis should begin.

## Highlights

### Change from Jan. 1, 2004 to Jan. 1, 2015

- The US cattle and calves inventory increased to a total of 89.8 million head, up about 1.3 million head (1.4%) from 2014.
- January 2014 marked the end of the 2004–2014 cattle cycle and the beginning of a new cattle cycle (2014–present).



- The inventory of cattle and calves for the new cattle cycle is tracking slightly below the previous cattle cycle inventory levels (2004–2014).
- The number of cows and heifers that have calved increased to a total of 39.0 million head, up about 707,000 head (1.9%) from 2014.
- The inventory of heifers 500 pounds and over increased to a total of 19.2 million head, up about 271,000 head (1.4%) from 2014.
- The inventory of heifers 500 pounds and over held for beef cow replacements increased to a total of 5.8 million head, up about 226,000 head (4.1%) from 2014.
- Milk cow replacements increased to a total of 4.6 million head, up about 67,000 head (1.5%) from 2014.
- The inventory of other heifers 500 pounds and over decreased to a total of 8.8 million head, down about 22,000 head (–0.25%) from 2014.

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2. Chris Prevatt, regional specialized agent, Food and Resource Economics Department, UF/IFAS Range Cattle Research and Education Center, Ona, FL.

- The 2014 US calf crop was estimated to be 33.9 million head, an increase of 17,000 head (0.5%) from 2014.
- The January 2015 number of feeder cattle outside of feedlots (FCOF) was estimated to be 25.2 million head, an increase of 133,000 head (0.5%) from 2014.

### Change from July 1, 2014 to July 1, 2015

- The US cattle and calves inventory increased to a total of 98.4 million head, up about 2.1 million head (2.2%) from 2014.
- The number of cows and heifers that have calved increased to a total of 39.8 million head, up about 800,000 head (2.1%) from 2014.
- The inventory of heifers 500 pounds and over increased to a total of 15.9 million head, up 300,000 head (1.9%) from 2014.
- The inventory of heifers 500 pounds and over held for beef cow replacements totaled 4.9 million head, up 300,000 head (6.5%) from 2014.
- The inventory of milk cow replacements increased to a total of 4.2 million head, up 100,000 head (2.4%) from 2014.
- The inventory of other heifers 500 pounds and over decreased to a total of 6.8 million head, down 100,000 head (-1.5%) from 2014.
- The July 2015 calf crop was estimated to be approximately 34.3 million head, up 400,000 head (1.2%) from 2014.
- The July 2015 number of feeder cattle outside of feedlots (FCOF) was estimated to be 35.5 million head, an increase of 700,000 head (2.0%) from 2014.

### Estimated Outlook

- 2015 US beef production is estimated to decrease to a total of 23.6 billion pounds, down about 0.7 billion pounds (-2.8%) from 2014.
- 2016 US beef production is estimated to increase to a total of 24.9 billion pounds, up about 1.4 billion pounds (5.8%) from 2015.
- Net beef supply (domestic beef production plus beef imports minus beef exports) during 2015 is estimated to increase to 24.7 billion pounds, up 0.04 billion pounds (0.2%) from 2014. The 2015 increase is the result of a decrease in domestic beef production (-0.7 billion pounds, or -2.8%), an increase in beef imports (0.5 billion pounds, or 16%), and a decrease in beef exports (-0.3 billion pounds, or -10.3%). Beef and veal imports are estimated to be about 3.4 billion pounds during

2015, while exports are estimated to be about 2.3 billion pounds. Thus, a beef trade deficit of about -1.1 billion pounds is estimated to be realized during 2015.

- Net beef supply during 2016 is estimated to increase to a total of 25.5 billion pounds, up 0.8 billion pounds (3.2%) from 2015. The increase in 2016 is the result of an increase in domestic production (1.4 billion pounds or 5.8%), a decrease in beef imports (-0.4 billion pounds, or -11.4%), and an increase in beef exports (0.2 billion pounds, or 7.7%). Beef and veal imports are estimated to be about 3.0 billion pounds, while exports are estimated to be about 2.5 billion pounds during 2016. Thus, a beef trade deficit of about -0.6 billion pounds is estimated to be realized during 2016.
- Competing meat production (pork and poultry) during 2015 is estimated to show a modest increase compared to 2014. Pork production during 2015 is estimated to show an increase of 0.7 billion pounds (3.1%), and broiler production is estimated to increase by about 1.4 billion pounds (3.8%). Pork and broiler production are estimated to total 23.5 and 40.0 billion pounds during 2015, respectively. Total beef, pork, and broiler production is estimated to increase to a total of 87.7 billion pounds, an increase of about 1.5 billion pounds (1.7%) from 2014.
- US beef exports during 2015 are estimated to decrease to 2.3 billion pounds (-10.3%) due to a stronger US dollar and weak economies of several major trading partners (Canada, Mexico, Japan, etc.).
- US beef exports during 2016 are estimated to increase slightly due to recovering foreign economies and world population growth. Exports during 2016 and beyond are estimated to be somewhat variable as world economies adjust to their prevailing economic conditions, political events, and any world chaos causing consumers to change their spending habits. As should be estimated with approximately 10% of US beef currently being exported, any increase or decrease in the levels of US exports of beef and/or competing meats (pork and poultry) will have a significant impact on US domestic beef prices.
- As of July 2015, the combination of a higher level of brood cow inventory (+800,000 head for beef and dairy, or 2.1%) and a significant increase in beef and dairy replacement heifers (400,000 head, or 4.6%) from July 2014, suggests that the US beef cow herd will continue to increase. Current expectations are that the January 1, 2016, cattle and calves inventory estimate will show a 2% to 3% increase.

## Supply Situation

US cattle inventory numbers are surveyed by the USDA as of January 1st and July 1st each year (USDA/NASS 2015a). This information (cattle) is published by the USDA. As shown in Figures 1 and 2, US cattle producers have increased most categories of their inventory of cattle and calves. The major factors responsible for causing cattle inventory increases include a combination of higher cattle prices, improved grazing conditions, lower production costs (feed, fertilizer, fuel, etc.), and record profits.

In the mid-year (July 1) 2015 USDA survey (USDA/NASS 2015a), US cattle producers reported to the USDA that they had about 800,000 (2.1%) more cows that had calved than at the same time in 2014. Beef cows that had calved numbered 30.5 million head, up 750,000 head (2.5%) from July 2014. Dairy cows that had calved increased about 50,000 head from July 2014 to 9.3 million head (0.5%). Beef cow replacements increased about 300,000 head from July 2014 to 4.9 million head (6.2%). Dairy cow replacements at 4.2 million head were up 100,000 head (2.4%) from July 2014. An increase in total cows (800,000 head of beef and dairy cows) and total replacements (300,000 head of beef and dairy) between July 2014 and July 2015 documents that robust herd expansion is underway in the US cattle industry.

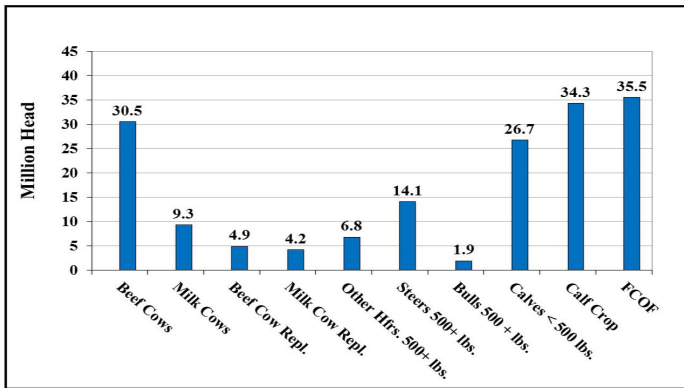


Figure 1. US cattle inventory, July 1, 2015

As shown in Figure 2, there were increases in inventory estimates between 2014 and 2015 for all categories, except for other heifers 500+ pounds and over, which decreased 1.4%, and bulls 500+ pounds and over, which showed no change (0.0%). The increases in beef and dairy cows and beef and dairy replacements provide support for a larger estimate of the inventory of cattle and calves when the January 1, 2016 Cattle Report is released.

A larger inventory of cattle and calves and larger calf crop during 2015 is estimated to result in higher levels of beef

production during 2016. The USDA projects US beef production during 2016 to be about 24.9 billion pounds, which would be a 5.8% increase from the projected 2015 estimate of 23.6 billion pounds. This level of beef production will be influenced by any adjustments in average carcass weights and the level of feeder and live cattle imports (from Canada and Mexico). Due to significantly cheaper feedstuffs, slaughter weights should be heavier during 2015 and 2016.

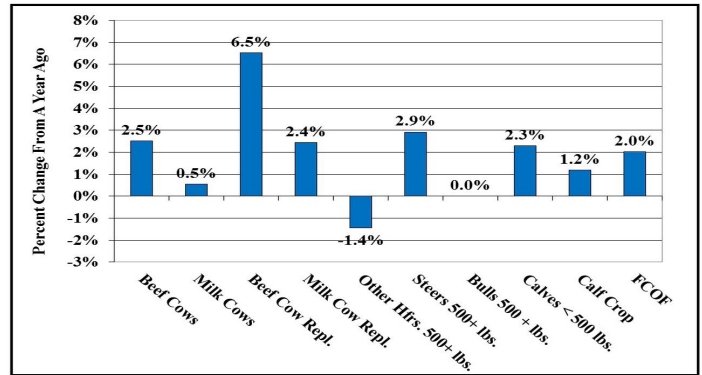


Figure 2. Percent change in US cattle inventory, July 1, 2015

## Food and Forage Conditions

The 2015 growing season of the major corn-growing regions started with a slower planting schedule and fewer acres planted (USDA/NASS 2015b). Above-average weather and growing conditions have caused yield levels to return to or exceed trend levels in most major grain-growing areas. Industry expectations are for a 13+ billion bushel corn crop. Additionally, harvest weather is currently adequate in most areas for a timely harvest. For 2015, the USDA corn and soybean production forecasts are 13.6 billion bushels and 3.9 billion bushels, respectively. If these production levels are realized, corn production will be about 0.63 billion bushels smaller than in 2014 (-4.4%) and soybean production will be about 0.03 billion bushels smaller than in 2014 (-0.85%).

The 2015 corn and soybean futures prices have decreased correspondingly to the forecasted larger crops that were projected this season. The December 2015 corn futures prices ranged from a high of \$4.54 per bushel to a low of \$3.57 per bushel, while November 2015 soybeans ranged from a high of \$10.45 per bushel to a low of \$8.53 per bushel. December 2015 corn is currently trading at \$3.86 per bushel (CME 2016), while November 2015 soybeans prices are at \$8.76 per bushel. The current futures prices represent a decrease in the futures prices for corn and soybeans of about 27% and 24% from the highs during 2015, respectively. Corn and soybean prices are estimated

to move slightly lower. If lower grain prices continue, all sectors of animal agriculture will likely expand.

Another factor that affects feed prices, feeder calf prices, and feeder cattle prices is the level of export demand for corn and soybeans. Any major changes in world grain supplies and/or export demand for these commodities could significantly move cattle market prices. Economic growth in several Asian countries has begun to decelerate, which may affect export grain demand. Additionally, the strength of the US dollar is certain to influence the world grain export demand (a strong US dollar negatively impacts US grain export demand and vice-versa).

Total 2015 US hay production is estimated to be larger than in 2014. The USDA Crop Production Report (USDA/NASS 2015b) estimated total hay production at about 142 million tons. That is up about 2.3 million tons (1.6%) from 2014. Average yield is estimated to increase marginally and acreage harvested is estimated to decrease slightly for hay production. Average yield is estimated to increase from 2.45 to 2.51 tons per acre (2.4%). Harvested acreage is estimated to be down about 0.5 million acres (-1.0%) from 2014. Most states in the Southeast will show higher levels of hay production compared with 2014. Additionally, high input costs will contribute to continued high hay prices. Therefore, alternative winter forages and feedstuffs will likely continue to be in high demand as cattle producers seek to feed their cow herds, stocker cattle, and slaughter cattle.

Fortunately, pasture and range conditions have been better over many of the cow-calf states this year. As of September 27, 2015, the pasture and range acreage with conditions rated as poor or very poor was 22% of the total US acreage compared to 19% in 2014. The current US pasture and range acreage with conditions rated as good to excellent was 43% of the total US acreage compared to 49% in 2014. These pasture and forage conditions coupled with increased hay supplies should continue to encourage herd expansion with the high cattle prices being realized during 2015.

## Demand and Trade

US beef demand has enjoyed moderate growth during the last several years despite a slow US economic recovery. However, domestic beef demand is estimated to be tested during 2016 as significant increases in competing meats are realized and consumers are estimated to experience rising interest rates and prices for most goods and services (Mathews and Haley 2015). If consumer disposable income does not rise proportionally, shopping habits and choices will shift, forcing consumers to substitute and/or reduce the

bundle of goods and services they have consumed in the past.

United States per capita consumption of beef is estimated to decline slightly during 2015 to around 53.9 pounds per person in 2015. The combination of lower domestic beef production, a modest increase in imports, and slightly lower exports is estimated to show little change in domestic net beef supply in 2015 (0.04 billion pounds, or 0.2%) compared with 2014. Per capita consumption for 2016 is estimated to be about 55.2 pounds per person. Also, as the US population increases in the future, per capita beef consumption could move lower unless US beef production increases or exports decrease, or imports increase or some combination of these factors occurs.

The average retail beef price for 2014 was \$5.97 per pound. Monthly average retail beef prices during the first eight months of 2015 averaged 54 cents higher than in 2014 (\$5.82 vs. \$6.36). The 2015 average retail beef price is estimated to be about 8% higher than 2014. Average retail beef prices during 2016 are estimated to show a modest increase of 1% to 2% due to expanding beef and competing meat supplies.

Additionally, it is very important that the US beef industry continues to sustain and/or grow beef export markets. The United States currently exports about 10% of its domestic beef production each year. The beef export market commonly adds between 12% and 18% of the value of a steer marketed (based on sales of beef, offal, and hides). Growth in beef export markets will also help to moderate the price impacts should any weaknesses occur in US broiler and pork exports.

## Competing Meats

US meat production of beef, broilers, and pork in 2015 is estimated to increase to 87.1 billion pounds (1.5 billion pounds, or 1.7%, from 2014). Figure 3 shows the US beef, broiler, and pork production levels for 2010–2015. Beef production is projected to decrease about 0.7 billion pounds (-2.8%), broiler production to increase about 1.5 billion pounds (3.8%), and pork production to increase about 0.7 billion pounds (3.1%) during 2015 when compared with 2014. USDA meat production projections for 2016 are 24.9, 41.1, and 24.7 billion pounds of beef, broilers, and pork, respectively (Figure 3).

Figure 4 describes the levels US beef, broiler, and pork production as a percentage change from 2010 for the years 2011–2016. Broiler and pork production levels show

positive increases from 2010, while beef production shows significant decreases. This suggests that it will be a couple of years before beef production returns to the 2010 production levels. Profits will be needed to encourage increased beef production. The average annual percentage change in production levels between 2010 and 2016 is estimated at -4.6%, 4.6%, and 4.2% for beef, broilers, and pork, respectively.

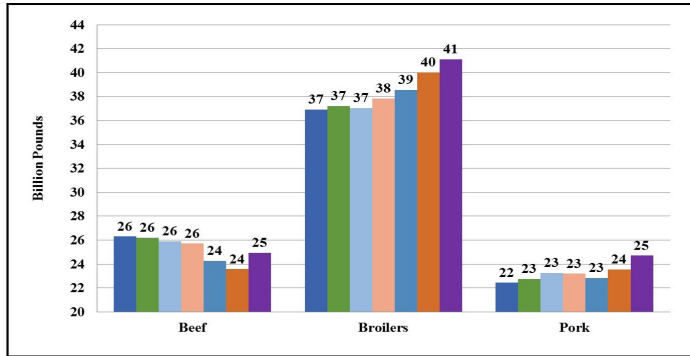


Figure 3. US beef, broiler, and pork production, 2010–2016 (2015 and 2016 are USDA projections)

Any changes in these production, import, and/or export levels of pork and broilers could have a significant effect on US beef prices. Additionally, any further increases/decreases in feedstuff prices will likely alter these 2016 production projections. A watchful eye on the production and export levels of competing meats and feed prices will help identify potential changes in beef prices.

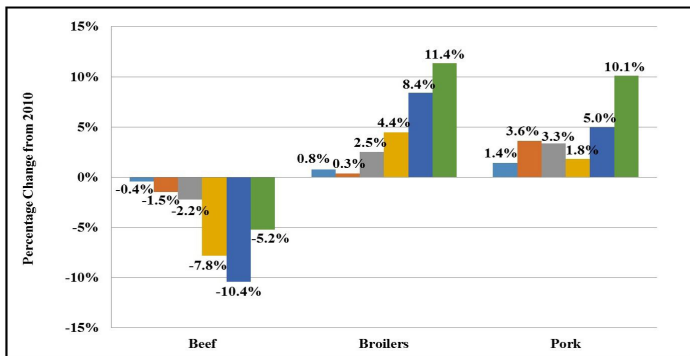


Figure 4. US beef, broiler, and pork production percentage change from 2010 for 2010–2015 (2015 and 2016 are USDA projections)

## 2016 Beef Price Outlook

The 2016 US cattle market will likely experience lower cattle prices compared with 2015 due to increased net beef supply, increases in competing meat production, and weaknesses in the US economy. US cattle producers should monitor several factors, including changes in domestic beef demand, future strength/weakness of US economy, competing

supplies of broilers and pork, export and import sales (beef, broilers, and pork), feedstuff prices, monetary exchange rates, interest rates, energy prices, and adverse weather impacts. The US cattle markets will likely experience some volatile movements with abrupt changes in any of these factors and/or combinations of factors.

The 2014–2016 US net beef supply estimates are shown in Table 1. US net beef supply is domestic beef production plus beef imports minus beef exports. The net beef supply is the amount of beef that is consumed in US markets. The 2015 US net beef supply is estimated to show a slight increase of about 0.042 billion pounds (24.695B – 24.653B = 0.042B, or 0.17%) compared with 2014. The 2016 US net beef supply is estimated to show an increase of 0.795 billion pounds (25.490B – 24.695B = 0.795B, or 3.2%) compared with 2015.

Minor changes in future US beef import and/or export levels (due to beef demand, food safety, exchange rates, politics, regulations, etc.) can significantly change the US net beef supply and, consequently, domestic beef prices. Additionally, the strength of the US dollar will have a major influence on the levels of US beef exports and imports during 2015. If the US dollar trades stronger against the currencies of our trading partners, expect less US beef exports to these countries and leaner US beef imports.

Total 2015 US net supply of beef, broilers, and pork is estimated to increase about 2.7 billion pounds (3.7%) compared with 2014. Likewise, the 2016 US net supply of beef, broilers, and pork is estimated to increase about 2.3 billion pounds (2.9%) compared with 2015. The 2016 US net broiler supply is estimated to increase 0.9 billion pounds (2.8%) and the US net pork supply is estimated to increase 0.4 billion pounds (2.4%), while the US net beef supply is estimated to increase 0.8 billion pounds (3.2%). The increased supplies of beef and competing meats will likely limit beef prices during 2016.

Supplies of beef, broilers, and pork are estimated to respond quickly to changes in demand. Any significant changes in domestic demand and/or foreign demand of these three competing meats could cause major movements in beef prices. Each industry is very capable of significantly altering production levels and is subject to wide changes in export and import levels.

Given the above projections regarding the 2016 US net beef supply, beef cattle price projections were estimated for 2016 (FAPRI 2015; USDA/ERS 2015). As shown in Table 2, beef cattle negotiated price projections were estimated

quarterly for choice slaughter steers (basis USDA 5-area slaughter cattle), feeder steers, 750#, (basis Florida), feeder steer calves, 550#, (basis Florida), and breaking utility cows (basis Florida). These auction market prices represent the range over which the particular class of cattle would average for the indicated quarter. For example, choice slaughter steers during the first quarter of 2016 are estimated to average between \$115 and \$125 per hundredweight. The highest average prices are estimated during the second and third quarters for choice slaughter steers, the third quarter for 750# feeder steers, the second and third quarter for 550# feeder calves, and the second quarter for breaking utility cows of 2016.

For 2016, choice slaughter steers (basis USDA 5-area slaughter cattle) are forecast to post an annual average price between \$120 and \$125 per hundredweight. Florida feeder steers (750#) are estimated to report an annual average price between \$135 and \$140 per hundredweight, Florida feeder steer calves (550#) between \$165 and \$170 per hundredweight, and Florida breaking utility cows between \$75 and \$80 per hundredweight. Breeding heifer, cow, and bull prices are estimated to show decreases as the demand for herd replacements becomes weaker.

Factors to watch in 2016 that impact US cattle markets include the growth of the US economy, unemployment levels, consumer confidence, domestic and international beef demand, exchange rates, interest rates, energy prices, levels of competing meats, weather events, and outliers (food safety, war, etc.) (Prevatt, Garcia, and Prevatt 2011). Any significant movement of one or some combination of these factors is believed to have an overwhelming effect on US business and consumer spending as well as cattle prices. As should be estimated, the 2016 cattle market has the potential for large price swings. Abrupt changes in the levels of the factors mentioned above could add much volatility to the 2016 cattle market prices. US cattle producers will need to search for ways to lower their unit cost of production (what it costs to produce a pound of beef) and ways to enhance market prices to achieve higher levels of profitability during 2016.

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Table 1. US net beef supply (billion pounds), 2014–2016

Item	2014	2015	2016
	<b>(billion pounds)</b>		
US Domestic Beef Production	24.252	23.565	24.930
US Beef & Veal Imports	2.974	3.437	3.045
US Beef & Veal Exports	2.573	2.307	2.485
US Net Beef Supply <sup>1</sup>	24.653	24.695	25.490

<sup>1</sup> Columns may not sum exactly due to rounding.

Table 2. Estimated average cattle market prices by quarter, 5-area fed slaughter and Florida, 2016<sup>1</sup>

Item	2016				2016
	1 <sup>st</sup> Qtr.	2 <sup>nd</sup> Qtr.	3 <sup>rd</sup> Qtr.	4 <sup>th</sup> Qtr.	2016 Avg.
Choice slaughter steers, 5-area, \$/cwt.	\$115–\$125	\$120–\$130	\$120–\$130	\$115–\$125	\$120–\$125
Feeder steers, 750#, Florida, \$/cwt.	\$135–\$145	\$130–\$140	\$135–\$145	\$130–\$140	\$135–\$140
Feeder steer calves, 550#, Florida, \$/cwt.	\$160–\$170	\$170–\$180	\$170–\$180	\$165–\$175	\$165–\$170
Breaking utility cows, Florida, \$/cwt.	\$75–\$85	\$80–\$90	\$75–\$85	\$70–\$80	\$75–\$80

<sup>1</sup> Price Projections are calculated as USDA/FAPRI U.S. Quarterly Projections +/- Florida Basis if applicable.  
<sup>2</sup> These price projections are updated routinely as more economic information enters the marketplace.