



Market Advisor

by **Tim Petry**, North Dakota State University Extension Service

Beef cow herd expansion and Northern Plains drought

On July 21, the USDA National Agricultural Statistics Service (NASS) once again released the July Cattle report. I say "once again" because the report was not published in 2016 due to budgetary constraints, which was also the case in 2013.

Expansion is evident

The July *Cattle* inventory report is important because it gives a mid-year indication of possible changes to look forward to in cattle numbers, beef production and potential market price impact. The July report is less detailed and only provides total U.S. cattle inventory numbers. The January *Cattle* report provides a more detailed state-by-state breakdown of numbers, which allows regional weather-related changes to be documented.

Most beef cattle market observers expected the July report to show continued expansion in beef cows, and that certainly was the case. NASS reported the July 1 U.S. beef cow herd at 32.5 million head, which was up 6.6% from 2015 (2016 was not reported). When compared to the Jan. 1, 2017, beef cow inventory at 31.2 million head, expansion is evident.

The ratio of the July beef cow inventory to the January numbers was the highest in several years. Keep in mind that the July beef cow herd tends to be larger than the previous January, because bred heifers are not counted as beef cows until they calve, and many beef bred heifers calve between Jan. 1 and July 1.

There were also signs that the pace of beef herd expansion may be waning somewhat. NASS reported 4.7 million U.S. beef replacement heifers on July 1, compared to 4.8 million on July 1, 2015, down a little more than 2%. Unlike beef cows, the ratio of July beef replacements to the Jan. 1 estimate of 6.4 million was the lowest in many years.

The *Cattle On Feed* report issued by NASS as of July 1, 2017, pegged the number of heifers on feed up 10.6% from 2016, another sign of slowing beef herd expansion.

2017 calf crop

The July *Cattle* report also gives the first estimate by NASS of the 2017 calf crop.

The 2017 calf crop (includes beef and dairy calves) in the United States is expected

to be 36.3 million head, up 3.5% from last year's calf crop, up 6.5% from 2015 and the largest in 10 years. Calves born during the first half of 2017 are estimated at 26.5 million head. This is up 4% from the first half of 2016 and 8% above 2015. An additional 9.8 million calves are expected to be born during the second half of 2017.

The larger beef cow herd means a larger calf crop is likely again in 2018. Both weather and market conditions will dictate the size of the 2019 calf crop, but an increase could occur again.

Larger calf crops will likely cause increased beef production for the next several years. All-time record-high beef production occurred in 2002 at just more than 27 billion pounds (lb.), but declined to just less than 24 billion lb. by 2015 due to the declining beef cow herd. Production increased approximately 1 billion lb. in 2016 to 25.2 billion lb., and is expected to increase a billion pounds in each of the next two years. So, beef production is forecast to be more than 26 billion lb. in 2017 and more than 27 billion in 2018, which would be near the all-time record high.

Effects of drought

Severe drought conditions in the Northern Plains that developed early this summer affected much of the Dakotas and eastern Montana, forcing beef cow and replacement heifer liquidation there.

That raises the question of will rebuilding of the U.S. beef cattle herd be affected? Those states are important beef cow-calf states. South Dakota is the fifth-largest beef cow inventory state with 1,664,000 cows on Jan. 1; followed by seventh-place Montana with 1,486,000 cows; and 10th-place North Dakota with 954,000 cows.

Favorable moisture conditions in the spring quickly gave way to severe drought by

early summer. For example, in North Dakota September 2016 through February 2017 was the ninth-wettest six-month period on record. That was followed by March through July as the third-driest five-month period on record. In addition, abnormally high temperatures and strong winds fueled the drought.

By late May cow-calf pairs were being sold at auction markets in the western Dakotas and eastern Montana. Many of those were

purchased by ranchers in Nebraska and Wyoming, where better moisture conditions prevailed. So some regional shifts in beef cows may show up when the Jan. 1, 2018, *Cattle* report is released.

In the hard-hit areas of North Dakota, South Dakota and Montana, heifers that were retained for replacement were sold before being bred.

That is one reason for the increased heifer placements into feedlots this summer.

On a national scope, it is interesting to note that on Aug. 15, 2017, about 13% of U.S. beef cows were located in moderate or more intense drought. That compares to a slightly higher 16% on Aug. 15, 2016, which moved up to 32% in November 2016. However, the severe drought had moved from California and the Southeastern states in 2016 to the Northern Plains in 2017.

Beef cow numbers did decline last year in Mississippi (-5%), South Carolina (-2.9%) and Georgia (-1.6%) with the drought that occurred there in late fall and winter. So, declines could also occur in the Northern Plains states this year, especially since the drought started much earlier in the grazing season.

Those possible declines are likely to be offset by continued beef herd rebuilding in the Southern Plains and California, and an overall continued beef cow herd increase in the United States is expected.

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