Cyclical herd expansion over; record beef production in 2020
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Helping the newborn calf breathe
Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

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The latest Cattle report issued by USDA confirms that cyclical herd expansion in the U.S. is over. The total inventory of all cattle and calves on January 1, 2020 was 94,413 million head, down 0.4 percent from one year ago. The numbers indicate that, while cattle inventories have stopped growing, no major liquidation is underway.

The beef cow inventory is 31.3 million head, down 374,000 head or 1.2 percent lower year over year. The peak beef cow inventory for 2019 was 31.7 million (revised down by 75,000 head from the previous report). This means that the total herd expansion in this cycle was an increase of 2.73 million head from the 2014 low of 29.0 million cows. That is a total cyclical expansion of 9.4 percent or an average of 1.9 percent per year for the five years of expansion.

Beef replacement heifers were pegged at 5.77 million head, down 1.9 percent year over year. The inventory of beef replacement heifers is 18.4 percent of the beef cow inventory, a level that historically has not indicated significant liquidation. However, in 2019, replacement heifers were 18.6 percent of the beef cow inventory but sharply higher beef cow slaughter at the end of the year pushed the culling rate fractionally over 10 percent and resulted in modest reduction in the herd inventory. The number of beef heifers expected to calve in 2020 is 3.5 million head, 0.8 percent lower year over year.

The dairy cow herd on January 1 was 9.33 million head, down a scant 18,800 head from last year. Dairy replacement heifers were 4.64 million head, down 0.9 percent year over year. The dairy replacements heifer inventory is 49.7 percent of the dairy cow herd, slightly lower than the
average of the last decade. The number of dairy heifers expected to calve this year is down 2.5 percent year over year.

The 2019 calf crop was 36.06 million head, down 0.7 percent year over year. The cyclical peak 2018 calf crop of 36.3 million was the largest calf crop since 2007 when the total calf crop was 36.8 million head.

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The January 1, 2020 inventory of other heifers was 9.71 million head, up 0.9 percent year over year; the inventory of steers over 500 pounds was 16.67 million head, down 0.5 percent; and calves under 500 pounds had an inventory of 14.74 million head, up 1.4 percent year over year. The total of other heifers, steers, and calves minus the cattle on feed inventory leads to an estimated supply of feeder cattle outside of feedlots of 26.45 million head, down 0.4 percent from one year ago.

The cattle on feed inventory of 14.67 million head, up 2.1 percent year over year, is the largest since the 2008 level of 14.8 million head. These numbers show that the last pulse of larger cattle numbers are currently in feedlots and cattle slaughter will be up in the first quarter before declining through the second half of the year. However, higher carcass weights are projected to offset a slight decline in cattle slaughter and push total 2020 beef production higher to new record levels. Beef production is likely, however, to be lower year over year by the fourth quarter of the year.

Market conditions in 2020 will determine the trajectory of the cattle industry from this point forward. Modestly higher prices are projected in 2020, combined with improved international market potential, could restart herd expansion. Alternatively, continued political and economic turbulence or shocks, such as coronavirus, could drag markets down and hold cattle inventories flat or fall into more liquidation.

**Helping the newborn calf breathe**

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

Despite our best efforts at bull selection and heifer development, cows or heifers occasionally need assistance at calving time. Every baby calf has a certain degree of respiratory acidosis. Acidosis is the result of the deprivation of oxygen and the accumulation of carbon dioxide that results from the passage of the calf through the birth canal. The excess of carbon dioxide results in a build-up of lactic acid (therefore the acidosis.) In order to correct the lack of oxygen and the excess of carbon dioxide and its by-products, the healthy calf will pant vigorously shortly after birth. Some calves, however, may be sluggish and slow to begin this corrective process.

It is imperative that the newborn calf begins to breathe as soon as possible. To stimulate the initiation of the respiratory process, a few ideas may help. First, manually clear the mouth and nasal passages of fluids and mucus. Traditionally, compromised calves were held up by their hind legs to allow fluid to drain from the airways, but now many veterinarians and animal scientists don't recommend this. Most of the fluid that drains from an upside-down calf is
stomach fluid, important to health. Holding the calf by its hind legs also puts pressure on the diaphragm from abdominal organs, interfering with normal breathing. It's better to use a suction bulb to clear the airways.

Hanging the calf over a fence also is NOT a recommended method for a sluggish newborn. The weight of the calf on the fence restricts the movement of the diaphragm muscle. The fence impairs the diaphragm’s ability to contract and move. This diaphragm activity is necessary to expand the lungs to draw in air and needed oxygen.

**A better method is to briskly tickle the inside of the nostrils of the calf with a straw.** This will usually cause the calf to have a reflex action such as a “snort” or cough. The reflex cough or “snort” expands the lungs and allows air to enter. Expect the calf to pant rapidly for a few minutes after breathing is initiated. Panting is the natural response that increases oxygen intake and carbon dioxide release and will allow the calf to reach normal blood gas concentrations. Click on this link [https://www.youtube.com/watch?v=nEKy2pHjmoE](https://www.youtube.com/watch?v=nEKy2pHjmoE) to watch a video of this technique.