Carcass weights, beef supply and beef demand
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Plan now for colostrum needs this spring
Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

The latest weekly carcass weight data for the week ended November 18 showed steer carcass weights at 902 pounds for the third consecutive week. This is likely the seasonal peak in carcass weights and is up 70 pounds from the seasonal low of 832 pounds in early May. The seasonal increase is typical but a bit stronger than the average seasonal increase of 55 pounds from the April/May low to the October/November peak over the last five years. Nevertheless, the current steer carcass weight is 16 pounds less than the same week last year. Steer carcass weights have been lower 44 of 46 weeks this year and the average decrease for the year to date is 14 pounds below last year. Heifer carcass weights are currently 13 pounds below last year and have been lower every week of the year resulting in an average of 12 pounds lighter year over year for the year to date.

The decrease in carcass weights partially offsets increased cattle slaughter and moderates the increase in beef production in 2017. Steer slaughter is up 2.1 percent for the year to date; an increase of 310,000 head year over year. Lower steer carcass weights is the equivalent of 234,818 fewer head at last year’s carcass weights, meaning that the reduction in carcass weights is equivalent to increasing steer slaughter by 81,154 head or just 0.6 percent this year. Decreased heifer carcass weight is equivalent to a 110,067 head reduction in heifer slaughter reducing the increase in heifer slaughter from the actual 12.2 percent year over year increase to an equivalent level of 10.5 year over year increase. As a result, year to date beef production is up 4.1 percent compared to the 5.3 percent increase in steer and heifer slaughter.
The drop in carcass weights in 2017 primarily has a short run effect on beef supplies. However, longer run, carcass weights also have implications for beef demand. Steer and heifer carcass weights have increased an average of 5 pounds per year for the last fifty years. Current production systems, technology, and genetics would suggest that there is no end in sight to just how big cattle can get from a production standpoint. There is no reason to believe that the drop in carcass weights in 2017 is a change in the long run trend of bigger carcasses, though it could represent moderation or a peak in carcass size. However, carcass size is more than just a question of pounds.

Bigger carcasses mean more pounds of meat per animal but it also means bigger product size for muscle cuts such as steaks. The industry has been hearing from consumers for at least two decades that they did not want bigger and bigger steaks. Grocery stores and restaurants both market beef, not just on a price per pound, but on a cost per package or plate. Big steaks are increasingly too big for a meal and are too expensive to purchase. Sometimes steaks are simply cut thinner to offset the increasing surface area and thereby reduce package or plate weight and cost. However, recently published research conducted at Oklahoma State University confirms that consumers prefer thicker steaks and cutting steaks thinner will ultimately have a negative impact on steak demand.* Of course, bigger carcasses also increase other products such as trim for ground beef. More research is needed to determine the balance of products that optimizes carcass value relative to carcass size, but the tradeoff between lower steak demand and increased ground beef production suggests that the industry should pay attention to the demand limits of carcass size.


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It is not too soon to begin to prepare for the spring calving season. Locating, obtaining, and storing several doses of colostrum or colostrum replacer will come in handy before the first heifers start to go into labor. Calves born after a difficult birth are at a high risk of failing to receive adequate colostrum by natural suckling because of greatly decreased colostrum intake. Calves that are born to a prolonged stage II of parturition (delivery through the pelvic canal) very often suffer from severe respiratory acidosis. Acidotic calves are less efficient at absorbing colostral immunoglobulins even if artificially fed colostrum. The only disease protection baby calves will receive is via the passive transfer of antibodies (immunoglobulins) from the colostrum that they ingest. Therefore effort should be made to provide weak newborn calves with the best source of colostrum available via bottle sucking or tube feeding.

Natural colostrum is still considered the best source of the immunoglobulins for disease protection for the calf. If there is still a dairy in your area, the opportunity may exist to obtain some natural colostrum from newly freshened dairy cows. Avoid obtaining colostrum from dairies that are known to have had an incidence of “Johnes Disease”.

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Fresh colostrum can be stored in 1 quart doses by putting that much (1 quart) in a gallon-size Ziploc bag. Lay the bags flat to freeze in the freezer. When it is time to thaw the colostrum, it will be easier and quicker to thaw, compared to 2 quarts or more in a big frozen chunk. The amount of immunoglobulin ingested is also a major determinant of final blood immunoglobulin concentration. A practical "rule-of-thumb" is to feed 5 to 6% of the calf’s body weight within the first 6 hours and repeat the feeding when the calf is about 12 hours old. For an 80 pound calf, this will equate to approximately 2 quarts of colostrum per feeding. Consequently, if the calf is quite large (about 100 pounds), then the amount of colostrum will need to be increased accordingly to 2 ½ quarts per feeding.

If there is no source of natural colostrum available, purchase a few doses of a commercial colostrum “replacer”. Colostrum replacers will contain greater than 100 grams of immunoglobulin per dose. Make certain to read the label before purchasing. Colostrum replacers may seem expensive, but the value of a live calf at weaning strongly suggests that every effort to keep all of them alive is worth the investment.