CATTLEMAN'S CORNER

*Division of Agriculture Sciences and Natural Resources * Oklahoma State University* **SEPT/OCT 2017**

2017 retail and wholesale beef prices

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All-fresh retail beef prices were $5.833/lb. in July, up 1.0 percent year over year. All-fresh beef prices have increased each month this year since January. July Choice beef prices were $6.10/lb., down from the June level of $6.207/lb. but fractionally higher than July of 2016. The all-fresh retail beef price increased relative to the broiler composite retail price in July. The current ratio of retail beef to broiler prices is equal to the record level set in July, 2015. The retail beef to pork price ratio is also holding steady at levels near the record during the high prices of 2014 into 2016 and, like the beef to broiler retail price ratio, are at levels well above historical ratios prior to 2014.

Wholesale cutout values have dropped sharply in the past two months, with Choice cutout values down to a weekly average of $197.66/cwt. in mid-August after climbing to a stronger than expected seasonal peak of $250.86/cwt. in mid-June. Choice beef prices have struggled to find a summer bottom with ample supplies and summer heat weighing on beef markets. Weekly Choice cutout values averaged higher year over year from late April until last week.

Select cutout values also increased from January to a weekly seasonal peak of $224.54/cwt. in mid-May before dropping to last week's $194.81/cwt. The Choice-Select spread has displayed an exaggerated seasonal pattern this year increasing from a seasonal low of $1.25/cwt. in mid-February to an impressive $30.38/cwt. in the second week of June. This was the highest weekly Choice-Select spread since the BSE-induced market turbulence in October, 2003. The Choice-Select spread has decreased back to a narrow $2.25/cwt. in mid-August.

The dramatic seasonal Choice-Select spread pattern seems to mostly be a reflection of dynamic Choice beef demand; unexpectedly strong in the spring and struggling recently. Wholesale beef product values indicate that middle meats have weakened the most recently with rib and loin values dropping relatively more compared to chuck and round values. Choice Ribeye values increased to a pronounced seasonal peak in June, well above year ago levels, but have dropped back to last year's values recently. Choice Tenderloin and Strip Loin wholesale values have been plus or minus year ago levels all year but lower year over year recently. Chuck and round values have mostly been higher year over year in recent weeks.

The ground beef market has been quite volatile this year with 50 percent lean fed trimmings exhibiting an unusual and pronounced spike in May before returning to year ago levels recently. Lean (90 percent) trimmings followed year earlier levels through late April before rising sharply higher year over year for the past several weeks.

Longer term, wholesale beef product markets continue to adjust following unusual price relationships that emerged during the record high prices from late 2014 through early 2016. Many lower value products increased relative to middle meats during this period but are returning to more typical price relationships in 2017. Products from the chuck, round and sirloin increased relative to loin and rib prices during this period. The Choice-Select spread narrowed during the record price period and, as noted above, has widened back out to near record levels at times in 2017. Looking back, the past five years provides a good case study to help understand the complexities of beef demand and substitution between beef products as well as the interaction between beef and other meats in dynamic meat market conditions.

Helping fall-calving cows and heifers during the calving process

Dr. Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

Fall calving season is (or soon will be) upon the Oklahoma ranches that have fall and winter calving. An issue facing the rancher at calving-time, is the amount of time heifers or cows are allowed to be in labor before assistance is given. Traditional text books, fact sheets and magazine articles stated that "Stage II" of labor lasted from 2 to 4 hours. "Stage II" is defined as that portion of the birthing process from the first appearance of the water bag until the baby calf is delivered. Research data from Oklahoma State University and the USDA experiment station at Miles City, Montana clearly show that Stage II is much shorter, lasting approximately an hour in first calf heifers, and a half hour in mature cows.

Table 1. Research Results of Length of Stage II of Parturition

Location of Study	No. of Animals	Length of Stage II
USDA (Montana) *	24 mature cows	22.5 min.
USDA (Montana) *	32 first calf heifers	54.1 min
Oklahoma State Univ. **	32 first calf heifers	55.0 min

*Doornbos, et al. 1984. Journ. of Anim. Science: 59:1
**Putnam, et al. 1985. Therio: 24:385

In these studies, heifers that were in stage II of labor much more than one hour or cows that were in stage II much more than 30 minutes definitely needed assistance. Research information also shows that calves from prolonged deliveries are weaker and more disease prone, even if born alive. In addition, cows or heifers with prolonged deliveries return to heat later and are less likely to be bred for the next calf crop. Consequently a good rule of thumb: If the heifer is NOT making significant progress 1 hour after the water bag or feet appear, examine the heifer to see if you can provide assistance. Mature cows should be watched for only 30 minutes. IF she is NOT making progress with each strain, then a rectal examine is conducted. If you cannot safely deliver the calf yourself at this time, call your local veterinarian immediately. Before applying chains and beginning to pull, make CERTAIN that the cervix is fully dilated.

Most ranches develop heifers fully, and use calving ease bulls to prevent calving difficulties. However, a few difficult births are going to occur each calving season. Using the concept of evening feeding to get more heifers calving in daylight, and giving assistance early will save a few more calves, and result in healthier more productive two-year-old cows to rebreed for next year. For more information on topics concerning assisting cows and heifers at calving time, download and read an Oklahoma State University circular E-1006 "Calving Time Management For Beef Cows and Heifers". This free publication can be downloaded from this website: http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-9389/E-1006web2014.pdf

Proper cow culling is important to your business

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

Cull cows represent approximately 20% of the gross income of any commercial cow operation. Cull beef cows represent 10% of the beef that is consumed in the United States. The most recent "Market Cow and Bull Audit" has shown that the beef industry has made significant improvements in proper cow culling over the past 20 years. Nonetheless, Oklahoma ranchers need to make certain that cow culling continues to be done properly and profitably. Selling cull cows when they will return the most income to the rancher requires knowledge about cull cow health and body condition. Proper cow culling will reduce the chance that a cow carcass is condemned at the packing plant and becomes a money drain for the entire beef industry.

Is she good for another year? At cow culling time, producers often face some tough decisions. Optimum culling of the herd seems to require a sharp crystal ball that could see into the future. Will she keep enough body condition through the winter to rebreed next year? How old is the cow? Is her mouth sound so that she can harvest forage and be nutritionally strong enough to reproduce and raise a big calf? At what age do cows usually start to become less productive?

There is great variability in the longevity of beef cows. Records kept by a large cattle operation of Florida in the 1980's show how productivity changes over the life of the beef cows. These large data sets, (19500 cows, and 14000 cows in two separate years) compared the average percentage of cows determined to be pregnant based on their age in years. (Source: 33rd Annual Proceedings of the Beef Cattle Short Course by the University of Florida Animal Science Department).

This data would indicate that cows are consistent in the rebreeding performance through about 8 years of age. A small decline was noted as cows aged from 8 to 10 years of age. However the most consistent decline in reproductive performance was noted after cows were 10 years of age. A steeper decline in reproductive performance was found as they became 12 years of age. In other words, start to watch for reasons to cull a cow at about age 8. By the time she is 10, look at her very closely and consider culling; as she reaches her 12th year, plan to cull her before she gets health problems or in very poor body condition.

Using wheat pasture as a winter supplement for cows

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

Assuming more fall rainfall comes to the Southern Plains, wheat pasture will again be a key source of protein and some energy for many cow herds in this part of the United States. If that rainfall occurs, grazing of wheat usually will start in late November or early December.

Limited grazing of wheat pasture has proven to be the best and also more efficient approach for utilizing this high-quality forage with mature beef cows. The protein requirements of a dry cow can be met by allowing her to graze on wheat pasture for one day and returning her to dry pasture grass or hay for 2 - 3 days. A pattern of one day on wheat and 1 day off, should meet the protein needs of the same cow after calving. Producers must be reminded that adequate forage must be available in the dry grass pastures or in the form of hay to provide much of the energy needs of the cows in the “off” days.

The day on wheat pasture should be defined as that amount of time required for the cow to graze her fill of wheat forage (3 - 5 hours) and not a full 24 hours. This short time on wheat allows the cow to gather adequate amounts of protein to carry her over the ensuing days on dry grass or hay. A 3 - 5 hour grazing limit helps to avoid the unnecessary loss of valuable forage due to trampling, bedding down and manure deposits. Under normal weather conditions in the fall, enough wheat forage should be accumulated by early December to supply the protein needs of about 1 to 1.5 cows per acre throughout the winter months when limit grazing is practiced.

Producers who decide to use continuous grazing programs, should watch out for the possibility of "grass tetany." Grass tetany will normally strike when older cows are grazing small grain pastures in the early spring and the danger will tend to subside as hot weather arrives. A mineral deficient condition primarily due to calcium, and to a lesser degree to magnesium, is thought to be the major factor that triggers the disorder and normally affects older cows that are nursing calves under two to three months of age. Dry cows are seldom affected.

When conditions for occurrence of tetany are suspected, cows should be provided mineral mixes containing 12 to 15 percent magnesium and be consumed at 3 to 4 ounces per day. It is best for the supplements to be started a couple of months ahead of the period of tetany danger so that proper intake can be established. Because tetany can also occur when calcium is low, calcium supplementation should also be included. Cows grazing lush small grain pastures should be fed mineral mixes containing both calcium and magnesium. If signs of grass tetany are noted, call your

local large animal veterinarian immediately. Symptoms of tetany from deficiencies of both minerals are indistinguishable without blood tests and the treatment consists of intravenous injections of calcium and magnesium gluconate, which supplies both minerals.

Poor temperament adversely affects profit

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

October is a traditional weaning and culling time for spring-calving herds. Weaning for value-added calf sales is already underway. This is a time when producers decide which cows no longer are helpful to the operation and which heifer calves will be kept for future replacements. Selecting against ill-tempered cattle has always made good sense. Wild cattle are hard on equipment, people, other cattle, and now we know that they are hard on the bottom line.

Mississippi State University researchers (Vann and co-workers. 2006. Southern Section of American Society of Animal Science) used a total of 210 feeder cattle consigned by 19 producers in a "Farm to Feedlot" program to evaluate the effect of temperament on performance, carcass characteristics, and net profit. Temperament was scored on a 1 to 5 scale (1=nonaggressive, docile; 5=very aggressive, excitable). Three measurements were used: pen score, chute score, and exit velocity. Measurements were taken on the day of shipment to the feedlot. Exit velocity is an evaluation of temperament that is made electronically by measuring the speed at which the animal leaves the confinement of the chute. Exit velocity and pen scores were highly correlated. As pen scores increased, so did exit velocity. As pen score and exit velocity increased, health treatments costs and number of days treated increased, while average daily gain and final body weight decreased. This outcome makes perfect sense. Other studies have shown that excitable temperament can diminish immune responsiveness, with more temperamental calves having a reduced response to vaccination when compared with calm calves.

In the Mississippi study, as pen temperament score increased, net profit per head tended to decline. Pen temperament scores and net profits per head were as follows: 1=$121.89; 2=$100.98; 3=$107.18; 4=$83.75; 5=$80.81. Although feed and cattle price relationships have changed since this data was collected, one would expect similar impacts from the temperaments of cattle under today's economic situation.

"Heritability" is the portion of the differences in a trait that can be attributed to genetics. The heritability of temperament in beef cattle has been estimated to range from 0.36 to 0.45. This moderate level of heritability indicates that real progress can be made by selecting against wild cattle. Whether we are marketing our calf crop at weaning or retaining ownership throughout the feedlot phase, wild, excitable cattle are expensive to own and raise.

Sorting cows for more efficient winter supplemental feeding

Dr. Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

Planning now for winter feeding can provide an opportunity to become more efficient in the use of our winter feed dollars. Thoughtful sorting of the cow herd during the fall months as the summer grasses become dormant, allows the cows to be supplemented through the winter according to their needs.

First calf heifers have historically been the toughest females on the ranch to get rebred. They are being asked to continue to grow, produce milk, repair the reproductive tract, and have enough stored body energy (fat) to return to heat cycles in a short time frame. Two-year old cows must fill all of these energy demands at a time when their mouth is going through the transition from baby teeth to adult teeth.

If these young cows are pastured with the larger, older cows in the herd, they very likely will be pushed aside when the supplements are being fed in the bunk or on the ground. The result of these adverse conditions for young cows very often is a lack of feed intake and lowered body condition. Of course, lowered body condition in turn results in delayed return to heat cycles and a later calf crop or smaller calf crop the following year.

North Dakota State University data of commercial cow herds recorded over a 21 year period illustrated the differences in size and body condition of very young cows and the very mature (10 year old+) cows. The North Dakota data clearly show that the average 2 year old is about 20% smaller than her full grown herd mates. There is little wonder that the younger cows get pushed away from feed bunks, hay racks, or supplements fed on the ground. The results of the size differences and the need to continue to grow are manifest in the lower body condition scores noted in the very young cows. The very old cows are experiencing decline in dental soundness that make it difficult for them to maintain feed intake and therefore body condition. Over the 21 year data set from North Dakota, the 2-year old cows and the 11 year-old and older were significantly lower (0.3 or more units) in body condition score than middle-age cows.

Consequently, it makes sense to sort very young cows with the very old cows and provide them with a better opportunity to compete for the feed supplies. By doing so, the rancher can improve the re-breeding percentages in the young cows and keep the very old cows from becoming too thin before culling time.

From this data they formulated three logical groups of cows to be pastured together for feeding efficiency:

Group 1: The two-year old first calf heifers. They have higher nutrient needs than other cows that are not growing. They are too small to compete with larger, older, boss cows for the supplement. Some second-calf three year olds that are low in body condition also may fall into this group.

Group 2: The old cows (10 years and older) and the 2nd calf heifers. In addition, this group should include any of the middle aged cows that were thin and needed extra supplement. Cows that were Body Condition Score 4 or less would be considered.

Group 3: The remaining cow herd. This is the group that is mature in size and in adequate condition to enter the winter feeding period as at least Body Condition Score 5.
Many small beef herds may not have the pastures available to sort the cows into three groups. If only two groups are possible, putting groups 1 and 2 together would be the logical other combination.

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This Newsletter is one way of communicating cattle information to those interested.

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Ranchers, then want to be certain that the feeding program is adequate to have cows in each group calve as BCS 5 or 6 next spring.

Save the Date!!!

What: OK Beef Checkoff

When: November 1st, 2017
8:00 am till 5:00 pm

Where: OSU Extension Office
707 W Electric Ave.
McAlester, OK 74501
918-423-4120