

COW/CALF CORNER

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A Historical Perspective on the U.S. Feedlot Industry

Derrell S. Peel, Oklahoma State University Extension Livestock Marketing Specialist

The latest Cattle on Feed report underscores the challenges feedlots face in the coming months. Not only are feedlots paying record prices for feed and essentially record prices for feeder cattle, increasingly the supply of feeder cattle will be inadequate to maintain feedlot inventories at any price. It is easy to identify a variety of factors that contribute to dim feedlot prospects for the future.

Looking ahead, one of the biggest concerns is beef demand. Obviously, if demand were strong enough, the margin squeeze felt by feedlots (and packers) could be eliminated. The next two years will put beef demand in relatively uncharted waters so it is impossible to know exactly what to expect, but it seems likely that beef demand will continue to limit retail and wholesale beef prices relative to the input price squeeze that feedlots, as well as packers, will continue to face.

Drought is another culprit that contributes to feedlots' difficult circumstances. Two years of unplanned additional herd liquidation has pulled cattle supplies lower than market conditions appear to support. Moreover, without the 2012 drought, corn prices might be closer to \$5/bushel instead of near \$8/bushel. While these short run factors would have changed the feedlot picture somewhat, they do not change the fact that the role of the feedlot sector is changing and must change fundamentally in the future compared to how it has operated in the past. Since the 2006 crop year, season average corn prices have averaged \$4.50/bushel. From the 1965 through 2005 crop years, corn prices averaged \$2.15/bushel. In that time period, only in three years (1980, 1983 and 1996) did the season average corn price exceed \$3/bushel. Crop year average corn prices have exceeded \$3/bushel every year since 2006. It is likely that corn prices in the future will average at least twice the level under which the feedlot industry that we know today evolved. The point is that even without the drought, feedlots face a significantly different business environment which has structural implications on the sector.

Forty years of cheap corn had many impacts on the beef industry, most of which were manifest through the feedlot sector. Much of the changes in genetics and preferences for animal size and type were largely a function of feedlot driven demand, which was in turn based on cheap corn. More than anything else the industry became a calf feeding industry where an every higher percentage of the total cattle weight (and thus beef production) was based on grains.

As cattle numbers peaked in the 1970s and began to fall, feedlots maintained inventories by feeding lighter and younger animals for longer periods of time. In the decade of the 1970s, the average January 1 feedlot inventory was 13.0 million head, with an average all cattle inventory of 120.4 million head and an average estimated feeder supply of 42.1 million head. Feedlot inventories represented just under 11 percent of total cattle numbers and 31 percent of feeder

supply. This last figure means that there were just over three feeder cattle available to replace every animal already on feed at the beginning of the year. These proportions persisted into the 1980s but began to change late in the decade. The changes became more dramatic in the 1990s with feedlot inventory representing nearly 13 percent of total inventory and over 40 percent of feeder supply. Thus, in the 1990s there were slightly less than 2.5 feeders available for every animal in the feedlot.

In the last ten years, the situation has reached an extreme level. While total cattle inventories have fallen to an average of 94.6 million (2003-2012) and feeder supplies have fallen to an average of 27.4 million head, average feedlot inventories increased to 14.0 million head. Feedlot inventories have represented almost 15 percent of total cattle inventories and 51.4 percent of feeder supplies for the last decade. The record January 1 cattle on feed inventory was 14.8 million head in 2008, up 14 percent from the 1970s despite the fact that total cattle inventories were down 20 percent. Slight decreases in feedlot inventories since 2008 have been more than offset by decreased cattle inventories and feeder supplies. In 2012, the January 1 feedlot total was 14.1 million head, which represented a record 15.6 percent of total cattle inventories and 54.9 percent of feeder supplies. This means that there are currently 1.8 feeder animals available for every animal in feedlots. Obviously, the only possibility for this level of feeder cattle supplies to maintain feedlot inventories is with the very slow turnover rate that comes with feeding ever lighter and younger animals for long periods of time. However, corn prices that average twice the historical level and currently are 3.5 times historical levels make this economically infeasible. High corn prices are a strong incentive for more yearling feeding rather than calf feeding.

Eventually, rebuilding of beef cattle inventories will allow feedlots to respond appropriately to high corn prices by placing heavier cattle and reducing days on feed. Then, and only then, will the beef industry be able to respond to high grain prices to its fullest potential. Unfortunately it will likely take until 2015 or 2016 or later before any appreciable increase in feeder supplies can occur. The manner of feedlot business that carried the sector through the herd declines since the 1980s until 2006 is not feasible now. For the foreseeable future, feedlots are faced with the dilemma of feeding economically infeasible animals; not having enough animals to feed; or more likely both. The already high pressure resulting from chronic feedlot excess capacity will increase sharply in 2013 and 2014. The recent announcement of the closure of a sizable feedlot in Kansas is surely not the last such news in the coming months.

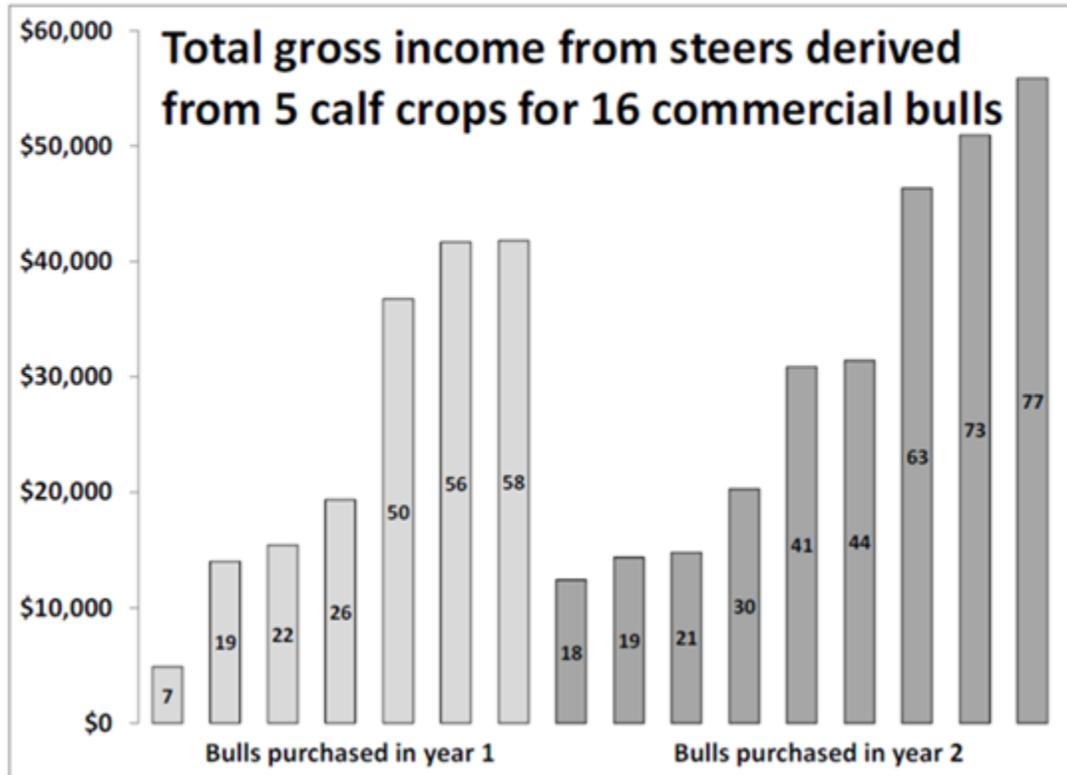
Importance of Genetic Management in Multi Sire Pastures

Dr. Megan Rolf, Oklahoma State University Extension Beef Specialist

Last week Dr. Selk wrote about management of bulls in multi sire pastures to achieve the highest fertility levels possible. Continuing that theme, I want to increase awareness of a genetic management practice that can be performed after the breeding season that will help evaluate a bull's reproductive performance as part of a multi sire breeding program. A bull's worth in a commercial cattle operation is relative to his abilities to sire calves, with additional value captured when he sires calves with superior performance. The second objective can be evaluated and selected for using EPDs. However, in multi-sire pastures, the bull's ability to sire calves can be hard to pinpoint without additional information.

Genetic testing to establish parentage in multi-sire pastures can be an invaluable tool. Knowledge of which bulls are making you money and which are a drain on limited resources is an effective, if not essential, risk management tool. Data from the California Commercial Ranch Project showed that calves sired by groups of bulls in multi-sire pastures resulted in large differences in gross revenue per sire. Due to vast differences in the number of calves each bull sired in a breeding season, the gross revenue varied from \$4,881 to \$55,889 between sires.

Figure 1. Total gross revenue (number of male calves sired shown inside the bars) derived from all of the steer progeny produced by two cohorts of yearling bulls purchased in successive years. Both groups served in multisire breeding groups for 5 breeding seasons on a US commercial ranch. Offspring were marketed at an average of 314 days of age to the feedlot, and an additional carcass-based quality premium was paid to the commercial producer.



All bulls in this scenario were declared sound breeders, but some bulls sired as few as 7 calves out of a total of 5 calf crops, and as a consequence, generated only \$4,881 in gross revenue during this period. The use of genetic testing for parentage determination would allow identification of bulls that are not pulling their weight so that they may be replaced. Regardless of whether a sire possesses superior EPD's, a bull that doesn't sire very many calves is still a drain on available resources. Additionally, if the bull that sires the largest number of calves has the worst set of EPDs, the average performance of the resulting progeny may be lower than expected. To increase performance in the calves, you may wish to cull that bull either to allow bulls with better EPDs to breed more cows, or to replace him with another bull with better performance data. In either scenario, the numbers speak for themselves. Knowing the quantity of calves that are being sired by each bull in multi-sire pastures can help to better manage bulls to maximize return on your investment.

Source: Alison VanEenennaam, "Uses of DNA information on commercial cattle ranches"

<http://animalscience.ucdavis.edu/animalbiotech/Biotechnology/mas/Using%20DNA%20information%20on%20commercial%20cattle%20ranches.pdf>

Lead Poisoning of Cattle Can Be Avoided

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

At least once every year, an unfortunate story of cattle loss is repeated somewhere in Oklahoma. A producer encounters sudden death loss

in several young calves and the veterinary diagnosis is lead poisoning. After an internet search, several important keys to prevention can be found.

1. Very small amounts of lead can cause poisoning. Calves licking crankcase oil, grease from machinery, lead pipe plumbing and batteries can be in danger.

2. Small calves represent the greatest percentage of lead poisoning cases because they are curious eaters. Other cattle however can also be affected.

3. Junk or garbage in pastures can be a source of lead. Example sources include: some crop sprays, putty, lead-based paints and painted surfaces, roofing materials, plumbing supplies, asphalt, lead shot, leaded gasoline, and used oil filters.

Symptoms of lead poisoning are often similar to other diseases and require a veterinary diagnosis to accurately confirm. Clinical signs of poisoning normally precede death, nonetheless, in many cases animals are simply found down or dead in the pasture. Observable signs vary from sub-clinical to very dramatic and take from just a few days to as many as 21 days to develop. Initial signs include depression, loss of appetite or occasionally diarrhea. The central nervous system may be affected and cause cattle to grind their teeth, bob their head, or twitch their eyes or ears. Some animals may circle, press their head or body against objects, or become uncoordinated and stagger. Muscle tremors, excitement, mania, blindness or convulsions may also be seen.

Treatment of lead poisoning can be costly and ineffective if not started quite early after ingestion of the lead. Successful treatments are usually started before the symptoms begin to appear and are often reserved for very valuable animals.

Prevention is the key. Be aware of any old or new machinery in pastures. Avoid junk or debris that could be a source of lead. (This could really be an issue after a severe thunderstorm or tornado with wind damage which results in roofing debris spread across the pasture.) Above all, DO NOT dispose of old car batteries in pastures where cattle have access to them.

Source of information: “Lead Poisoning in Cattle” Agriculture, Food, and Rural Development. Alberta, Canada.

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