# COW/CALF CORNER

The Newsletter

From the Oklahoma Cooperative Extension Service June 30, 2014

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### **Cattle numbers are tight across North America**

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

Record high feeder cattle prices leave no doubt that U.S. feeder cattle supplies are extremely tight. On January 1, estimated feeder supplies were down 2.7 percent over the previous year amid indications of heifer retention. There are indications that heifer retention has accelerated in 2014. USDA will release the July Cattle report in about a month which will provide a mid-year estimate of feeder supplies, though no year over year comparisons will be possible since the report was cancelled last year. U.S. feeder supplies will likely be down again with a 2014 U.S. calf crop fractionally smaller than last year and increased heifer retention further squeezing feeder supplies. However, the market attempts to compensate for declining supplies with high prices prompting adjustments wherever possible. U.S. veal slaughter continues to decrease, accelerating a long term trend in recent years. Veal slaughter so far in 2014 is down 15 percent year over year, a pace that would result in annual slaughter that is down 21 percent from the previous ten year average. High U.S. feeder prices also stimulate increased imports of feeder cattle from Canada and Mexico.

Cattle imports from Canada through April were up nearly 12 percent year over year. The imports reflect a changing mix of slaughter and feeder cattle with slaughter cattle down 3 percent and feeder cattle imports up 36 percent. This follows a 28 percent annual increase in Canadian cattle imports in 2013, consisting of 5 percent more slaughter cattle and a 113 percent increase in feeder cattle imports. Changes in the mix of slaughter and feeder cattle imports from Canada partly reflect the impacts of the latest country of origin label (COOL) rules implemented in May, 2013 and partly the strong U.S. demand for feeder cattle. Despite the flexibility to shift between feeder cattle and slaughter cattle, there is a limit to total cattle imports from Canada. The

Canadian beef cow herd is the smallest in 20 years and expected herd rebuilding there will limit feeder supplies in coming years.

Reliable cattle inventory data is much harder to find in Mexico but there are strong indications that total cattle numbers have decreased significantly in the past few years including a sharp drop in the cow herd inventory. Drought forced liquidation in 2011 and 2012 resulted in unsustainably large Mexican cattle exports to the U.S. Not surprisingly, U.S imports of Mexican cattle dropped by a third in 2013 compared to 2012. The extremely strong pull of record U.S. feeder prices in 2014 has kept year to date imports close to year ago levels. The monthly import total through April was down about two percent year over year but the preliminary weekly data for May and June suggests that year to date Mexican cattle imports are about five percent higher than last year. Decreased Mexican cattle inventories combined with growing domestic feeder cattle demand in Mexico due to the rapid expansion of feedlot production in the country suggests that current levels of Mexican cattle exports cannot be sustained in the short run and may be permanently reduced in coming years.

In 2011 and 2012, lack of heifer retention due to drought, reduced veal slaughter and increased feeder cattle imports all contributed to temporarily maintaining U.S feeder cattle supplies. Starting in late 2013 and accelerating in 2014, the reality of a still smaller calf crop, increased heifer retention and limited cattle supplies in Canada and Mexico underpin current market prices. Veal slaughter will likely drop a bit more but can only go so low; and the year to date eight percent increase in feeder cattle imports from Canada and Mexico is unlikely to be sustained in the second half of the year. Even the allure of record high cattle prices can only do so much when the cattle simply aren't there. Mexican cattle numbers are extremely tight and I expect U.S. imports of Mexican cattle to moderate in the second half of the year. Canadian feeder supplies will tighten as well though the timing is less certain. Combined cattle inventories in North America are at the lowest level in decades and with herd rebuilding indicated in the U.S., Canada and Mexico, North American feeder cattle supplies will get tighter at least through 2016.

# Don't get blindsided by anaplasmosis

Dave Sparks DVM

The golden days of summer are finally here! No more fighting snow, ice and mud to feed the cows every day. Calves are bucking and playing while their mothers fatten on the best forage of the year. Now is the time to let the cattle fend for themselves for a while and turn our thoughts to other things. It's time to get ready to hit the hayfields, farm small grain acres, and maybe even work in a little family vacation time while the kids and grandkids are out of school. In the cattle business, however, as soon as you turn your back bad things can be sneaking up on you.

In Oklahoma anaplasmosis can cause serious problems any time of the year, but summer is the time when it is most prevalent. There are several reasons why this is so. In summer there are greater populations of insect vectors to spread the disease from carrier animals. Many cases are spread by ranchers when they work their herds in the spring and early summer and show up after an incubation period in midsummer. Perhaps the biggest issue is that we just don't spend as

much time with our cattle in the summer as when we are supplemental feeding in the winter and small problems can become giant problems before we are aware of them.

The insect vectors include ticks and biting flies. Controlling these pests will go a long way towards controlling anaplasmosis. Human vectors transfer anaplasmosis from carriers to susceptible animals via hypodermic needles, surgical instruments, or anything that transfers minute quantities of blood from animal to animal. Always change needles frequently and clean instruments between animals. It is often possible to determine the type of vector by the course of the disease. In cases that come from insect vectors it is typical to see one or two severe cases followed several weeks later by an outbreak of several cases that trace back to the original infections earlier. In cases arising from human transfer it is typical to see multiple cases all developing at or near the same time several weeks after cattle have been processed. No matter the source, it is early detection and quarantine of affected animals is vital to limit the spread and avoid major losses.

Anaplasmosis attacks and destroys the red blood cells, causing anemia and often ultimately death. The first observable sign is a yellow or orange coloration around the eyes and or vulva due to pigments released by hemoglobin breakdown. Animals that are normally gentle become anxious and intractable, often wanting to fight, due to lack of oxygen to the brain. When symptoms are severe many animals die while being gathered for treatment due to lack of oxygen and excitability. Once the case is severe antibiotics are no longer affective. It may be advisable to leave advanced cases alone and let the disease run its course while removing the healthy animals from the pasture to avoid further infections. Recovered animals serve as carriers, but sick animals are about 10 times more infective than recovered animals, so quarantining actively sick animals is of greatest importance.

A vaccine is available but it has provisional licensing only at this time and in Oklahoma must be obtained through a licensed veterinarian. Your veterinarian can also make recommendations for controlling infections by using antibiotics in the salt or mineral and eliminating the carrier state of recovered animals with parenteral antibiotics. Perhaps the best thing to remember to prevent catastrophic losses this summer is to check often and catch problems early. Don't wait for it to rain to find time to check the cows.

## The impact of hot weather on bull fertility

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

Recently a producer asked about the impact that the heat of the summer of 2012 may have had on the reduced calf crop that was discovered the following spring. In particular, they wanted to know if high summer temperatures could lead to reduced fertility in bulls. Several research trials have been conducted throughout the years looking at the effect of high temperatures on bull fertility. As far back as 1963, researchers exposed bulls to temperatures of 104 degrees F. and 54% humidity for an 8 period and then allowed the temperature to drop to 82 degrees F with 72% humidity for the remainder of the 24 hour period. This temperature regimen was continued for 7 days and was designed to resemble natural conditions in the subtropics. They found the high temperatures resulted in major detrimental effects on initial sperm motility, sperm concentration and total numbers of sperm per ejaculate.

In 1978, Oklahoma scientists (Meyerhoeffer, et al.) placed bulls in controlled environments of 95 degrees F. for 8 hours and 87 degrees for the remaining 16 hours while similar bulls were placed in environments of 73 degrees constantly. These treatments were applied to the bulls for 8 weeks and then all bulls were allowed to be in the 73 degree environment for another 8 weeks. During the treatment, the heat stressed bulls had average rectal temperatures of 0.9 degrees F higher than non-stressed bulls. The percentage of motile sperm cells decreased significantly in the stressed bulls by 2 weeks of heat stress. **Sperm motility did NOT return to normal values until 8 weeks after the end of the heat stress.** This explains some of the reduction in fertility that is often associated with summer and early fall breedings. One cannot escape the conclusion that high ambient temperatures can result in detrimental effects on fertility by effects on both the cow and the bull. Also remember that heat stress can also have a negative impact on female reproductive performance. As you multiply the two reductions in reproductive soundness (male X female), it is apparent that heat stress can cause smaller and/or later calf crops.

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