

COW/CALF CORNER

The Newsletter

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Lack of Cattle Catches Up with Beef Industry

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The September USDA Cattle on Feed report shows a September 1 feedlot inventory at 9.88 million head, down 7 percent from last year and the smallest September feedlot inventory since 2003. The August placement total of 1.79 million head was 11 percent lower than one year ago and was the lowest August placement figure since the current report format began in the mid 1990s. Placements were lower for all weights but down the most for animals weighing under 700 pounds. This follows July placements which were also down nearly 11 percent from the previous year. Feedlot marketings in August were down 3.7 percent from last year. However, marketings as a percent of the on-feed total have been well above year ago levels in July and August.

It is perhaps less surprising that feedlot inventories are rapidly tightening than the fact that it has taken so long for the situation to develop. Drought and several other factors have postponed this situation to some degree since at least 2011. Though the timing is different, changes in several cattle sector flows have supported feedlot inventories and beef production temporarily in the face of ever tighter cattle supplies. The largest component of this, no doubt, is the fact that drought has postponed heifer retention. Most recently, it appears that heifer slaughter has been augmented with heifers diverted into feedlots earlier this year due to extended winter conditions and lack of hay. These heifers, diverted from breeding, were part of the last gasp of higher placements in March and April of this year and are being reflected in higher weekly heifer slaughter at the current time. For the year to date, heifer slaughter is down nearly 7 percent from the average heifer slaughter during 2009-2011. With accelerated heifer retention, heifer slaughter may drop another 7-8 percent in 2014.

Other factors have contributed in a smaller way to supporting feedlot inventories up to this point. Large imports of Mexican feeder cattle in 2011 and 2012 offset some of the decreased domestic feeder supplies during that period. Mexican imports dropped sharply about one year ago and is down 44 percent for the year to date. At the current pace, some 600 to 700 thousand head less Mexican feeders will be available in 2013. Feeder imports will continue at a reduced level in 2014. Another minor factor that has supported short term feedlot production is that calf (veal) slaughter has dropped to minimal levels in the past two or three years. While year to date calf slaughter is close to year ago levels, it down nearly 16 percent compared to average calf slaughter during the same period in 2008-2010.

These feedlot production factors, combined with carcass weight impacts and cow slaughter, will determine the total impact on beef production for the remainder of 2013 and beyond. Modestly lower steer and heifer slaughter in 2012 was partially offset by the sharp year over year increases in carcass weights. Carcass weights will increase only slightly in 2013 and 2014 and thus reduced slaughter will be more fully reflected as reduced beef production. Additionally, cow slaughter will likely drop more sharply in 2014 and will combine with lower steer and heifer slaughter to contribute to a projected 7 percent decrease in total cattle slaughter and a 6+ percent year over year decrease in beef production.

Prussic Acid Poisoning is a Concern After a Light Frost

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

It was discovered in the early 1900s that under certain conditions sorghums are capable of releasing hydrocyanic acid (HCN) or commonly called prussic acid. Prussic acid when ingested by cattle, is quickly absorbed into the blood stream, and blocks the animal's cells from utilizing oxygen. Thus the animal dies from asphyxiation at the cellular level. Animals affected by prussic acid poisoning exhibit a characteristic bright red blood just prior to and during death.

Lush young re-growth of sorghum plants are prone to accumulate prussic acid especially when the plants are stressed such as drought or freeze damage. Light frosts, that stress the plant but do not kill it, are often associated with prussic acid poisonings. Producers should avoid grazing fields with sorghum type plants following a light frost. The risk of prussic acid poisoning will be reduced, if grazing is delayed until at least one week after a "killing freeze". As the plants die and the cell walls rupture, the hydrocyanic acid is released as a gas, and the amount is greatly reduced in the plants. One can never be absolutely certain that a field of sorghum is 100% safe to graze. Sun-curing of hay will reduce HCN, especially if the hay is crimped. The complex that binds the HCN is hydrolyzed and the HCN evaporates in gaseous form.

A field test procedure is available in some areas of Oklahoma. It will not give quantitative levels for a sample, but rather an indication of the presence of cyanide. In this test "Cyantesmo Paper" is utilized to detect the presence of hydrocyanic acids and cyanides in freshly cut plant material. In the presence of cyanide, the pale green paper turns blue. Refer to your County OSU Extension Educator–Agriculture for assistance with the test.

Cattle that must be grazed on sorghum pastures during this time of year should be fed another type of hay before turning in on the field, and should be watched closely for the first few hours after turn in. If signs of labored breathing, such as would be found in asphyxiation, are noted, cattle should be removed immediately. Call your local veterinarian for immediate help for those animals that are affected. Be certain to read [OSU Fact Sheet PSS-2904 \(Prussic Acid Poisoning\)](#) before turning cattle to potentially dangerous fields.

Anaplasmosis Prevention, an All Season Program

Dave Sparks D.V.M., Oklahoma State University Area Extension Veterinarian

Many Oklahoma beef producers associate anaplasmosis with horse flies, and keep up a prevention program only during the fly season. Unfortunately, many of these same producers are still experiencing anaplasmosis problems year around, because biting flies are only a minor vector compared to other ways the disease can be transferred. In many areas, especially wooded or brushy pastures, ticks are more important vectors than biting flies. Ticks are an all-year problem in many areas of Oklahoma, so the control program also needs to be maintained all year. Stockmen also spread the disease from carriers to susceptible animals by not removing all traces of blood from equipment when processing adult cattle. The organism can be carried by needles, dehorner, castration knives, ear taggers, or any other implement that draws blood. It is sometimes possible to determine the source of the outbreak by the way cases develop. When insect vectors are responsible there will usually be one sick animal, followed several weeks later by multiple cases. If human transfer is the cause, several sick animals will show up at the same time 2 to 4 weeks after the cattle were worked.

The most popular means of anaplasmosis prevention is the use of mineral mixes that contain chlortetracycline (CTC). When fed at a rate of 0.5 mg/lb. of body weight CTC will prevent anaplasmosis infections. It is important to note, however, that CTC is added to minerals for several different reasons, including use as a growth promotant for yearlings, and these other uses require different levels of drug in the mineral. Make sure that the product you choose states on the label that it is formulated at a rate for the prevention of anaplasmosis, and gives the specific amount of daily consumption needed to supply that level. The next step is to monitor your herd to make sure that the product is being consumed at the appropriate rate. If not, you may need to look at other products or change your management practices in order to correct consumption deficits. It is very possible to have a few cases even when medicated minerals are provided, because some individuals may not consume them. For problem herds or as an alternative preventative, a killed vaccine is available in selected states including Oklahoma. It may be especially valuable for use in bulls, who often do not consume enough mineral to meet the CTC requirement for their body weight. Another control factor is the elimination of carriers. Recovered animals will be carriers of the disease and a source of infection for susceptible individuals. Clear them of the organism with high levels of antibiotics administered parentally, isolate them from susceptible animals, or cull them from the herd.

The signs of the disease include orange coloration of the mucous membranes due to breakdown pigments released from red blood cells that are destroyed. As more red blood cells are destroyed

the animals become slow and short of breath. They may exhibit aggressive behavior due to a shortage of oxygen supply to the brain. By the time signs are noticed, the disease is usually far along and you may easily cause the death of the infected animal while trying to bring them in for treatment. If you suspect an anaplasmosis problem contact your veterinarian who can make a definitive diagnosis and recommend a course of treatment before other animals are exposed. Sick animals are about 10 times as infective as recovered carriers are, so it is important to either move them away from their herd mates, or if this is not possible, move the herd mates away from them. If infected cows do not abort, their calves can become infected in utero. These calves will likely not show symptoms but remain carriers for life.

It is popularly believed that anaplasmosis only affects mature animals. Recent information out of Kansas State University, however, shows that young animals can be infected and suffer with the disease, although not as severely as older animals. This is due to young animals' ability to produce new red blood cells much faster than adults. In young animals anaplasmosis can easily be confused with bovine respiratory disease because in both instances the animal has a fever and experiences labored breathing. With anaplasmosis, however, the increased respiratory rate is due to a decreased capacity for the blood to carry oxygen rather than to any lung involvement. The two syndromes can also occur together.

If you live in an area where ticks are active in the winter, or you sometimes work your cows in cool weather, using CTC medicated mineral all year can save both the hard work involved with treating active anaplasmosis cases and the losses associated with the disease. Summer cases of anaplasmosis are often more dramatic and associated with more deaths because cattle are not watched as closely as in the winter when supplemental feeding is required. In the summer months it is easy to get involved in farming or haying operations and not check the cattle as frequently as they should be checked. This leads to outbreaks being more advanced and widespread before they are discovered. The disease progresses quickly. With each passing day the number of red blood cells affected by the organism doubles, until the immune system arrests the infection, treatment limits the course, or the animal dies.

In conclusion, beef producers can minimize the impact of anaplasmosis by 1) utilizing good sanitation concerning hypodermic needles and surgical instruments, 2) utilizing a preventative such as tetracycline in the mineral or incorporation of a vaccine program and, 3) observing cattle regularly for signs of trouble. If you are experiencing anaplasmosis problems your local veterinarian can help to design a preventative program that is best suited for your location and operation.

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