

COW/CALF CORNER

The Newsletter
From the Oklahoma Cooperative Extension Service

February 22, 2008

In this Issue:

Understanding Neonatal Calf Diarrhea

Dave Sparks D.V.M., OSU Area Extension Food-Animal Quality and Health Specialist

Cattle On-Feed Numbers Higher...for Now

Derrell S. Peel, OSU Extension Livestock Marketing Specialist

Understanding Neonatal Calf Diarrhea

Neonatal calf diarrhea or CALF SCOURS generally is caused by one or more of the following disease organisms: Rota virus, Corona virus, Cryptosporidium parvum, E. coli (K99 enterotoxigenic form), or Salmonella. Understanding the impact that these disease entities have on baby calves can help cow calf managers reduce the adverse effects of calf scours. Adequate colostrum intake by the calf is important for disease protection. A vigorous baby calf nursing a properly immunized, properly fed dam, will be a first line of protection against calf scours.

The first 3 organisms on the above list usually cause diarrhea at 7 to 21 days of age, while the common E. coli strains cause diarrhea within the first few days of life. The E Coli bacteria attaches to cells in the lining of the gut and turn on the fluid pump mechanism to cause excess water secretion into the gut. (Enterotoxigenic scours. Cow vaccination is helpful with this form.) The viral scours are caused by decreased absorption of water from the gut as the virus kills the cells of the gut papilla. (Cow vaccination is available but not always effective). Cryptosporidium and salmonella are zoonotic (transferable to humans) problems. The diarrhea is the result of a combination of factors including: (1) dose (number) of organisms the calf is exposed to, (2) amount or lack of calf immunity (colostrum), and (3) stress on the calf.

When should I treat the calf? Calves running around the pasture with their tails in the air, bucking and kicking with yellow or white diarrhea may not need treatment. The main indications for treatment are (1) general disposition, (2) appetite, (3) dehydration, and (4) body temperature. If the calf is weak, depressed, or reluctant to move these are all indications that something is wrong. If the calf is not eating, the cow's udder will be distended and this is sign of trouble also. Dehydration can be evaluated easily by pulling up the skin on the side of the neck or shoulder. In a normal calf, the skin snaps back into position quickly. In a dehydrated calf, the skin remains "tented" for a period of time-the longer it remains "tented" the worse the dehydration. Also, as dehydration worsens, the eyeballs sink back away from the eyelids-this is a bad sign and fluids are indicated immediately. Normal body temperature (measured with a rectal thermometer) is

100.5° F to 102.5 ° F. Body temperatures less than 100 ° F and greater than 102.5 ° F is a sign of problems and treatment should be started.

What are the recommended treatments? The main treatment is fluid therapy. Secondary treatments are antibiotics and nursing care. Because the main problem in scouring calves is loss of body fluid and electrolytes, the primary treatment must be aimed at restoring the water balance. The calves are thirsty, but they are too sick to drink. Therefore, the first line of treatment is oral electrolyte solutions. There are a number of excellent commercial products on the market for treatment of calf scours. All of these products contain glucose or a similar material, sodium chloride (table salt), and other electrolytes. The glucose and sodium allow the animal to absorb the water they need from their digestive tract. Giving straight water does not work. Usually 2 liters (just over 2 quarts) of the oral fluid solution is given 1 to 3 times per day to the sick calf. Consult with your veterinarian regarding the appropriate oral electrolyte product for your operation.

Antibiotics are often given to scouring calves even though antibiotics do not kill most of the calf scours agents. Due to damage in the gut of scouring calves, bacteria will "leak" into the blood stream of these calves and cause further problems. Antibiotics are of value for this reason. Antibiotics may kill the normal flora bacteria in the gut and actually make the problem worse but they must be used in circulating infections. Again, consult with your veterinarian regarding the correct choice of antibiotics to give. Many of the antibiotics are not labeled for calf scours and thus require a prescription from your veterinarian and an extended withdrawal time.

When treating sick calves, always treat them after you have attended to all the normal calves. This will decrease the spread of germs from the sick calves to the younger healthy calves. Also, keep all your treatment equipment clean-including your hands and clothes, as you can easily transmit these agents.

When do I need additional help? If your treatment methods are not working, contact your veterinarian immediately for additional help. If more than 5% of your calves are scouring and require treatment, you need help. If death loss is greater than 2% due to calf scours contact your veterinarian.

Cattle On-Feed Numbers Higher...for Now

USDA's February Cattle On Feed Report indicated that the February 1, 2008 on-feed total was 102 percent of the February 1, 2007 total. January placements were up, at 106 percent of last year, but still less than most pre-report estimates. Moreover, January 2008 placements are being compared to a very small 2007 January placement total. January placements in 2008 are actually 19 smaller than the 2006 January level. Marketings in January were 101 percent of one year ago. Despite the slight increase in feedlot inventories for February 1, tight feeder cattle supplies will limit placements in the coming months and bring the on-feed total below 2007 levels.

Placements will likely be lower through the middle of the year before increasing seasonally this fall.

Oklahoma State University, in compliance with Title VI and VII of the Civil Rights Act of 1964, Executive Order 11246 as amended, Title IX of the Education Amendments of 1972, Americans with Disabilities Act of 1990, and other federal laws and regulations, does not discriminate on the basis of race, color, national origin, sex, age, religion, disability, or status as a veteran in any of its policies, practices or procedures. This includes but is not limited to admissions, employment, financial aid, and educational services.