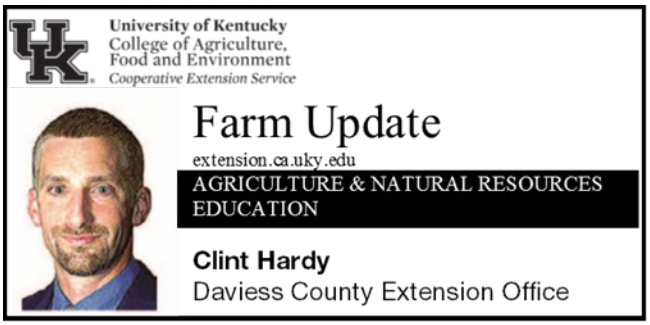
MESSENGER-INQUIRER



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Treat Calf Scours Early for Best Results

The most important health risk to young calves is scours. Calving season will not begin for another few weeks but take time to refresh your knowledge and stock up on treatment supplies. It will be well worth your time and money if a problem shows up. Dr. Michelle Arnold, UK Extension Ruminant Veterinarian indicates in the following discussion that diarrhea scours in calves less than 21 days of age is one of the leading causes of sickness and mortality. Other factors such as inadequate colostrum, poor sanitation, stress, and cold weather can make calf survival almost impossible. Regardless of the cause, diarrhea results in loss of electrolytes and water in the feces of calves and decreases milk intake. Ultimately, this leads to dehydration, elevated blood acid levels, abnormal electrolytes, and a negative energy balance from the lost nutrients and lack of milk.

A quick assessment of a calf with diarrhea will determine if oral fluid therapy or intravenous (IV) is needed. The choice depends on the severity of both dehydration and low pH of the blood. Dehydration is discovered by how far the eyeball is set back into the skull and the loss of skin elasticity. Blood pH is assessed by the calf's ability to stand and nurse. In general, a standing calf with a strong to moderate suckle reflex or demonstrates a "chewing action" can be given oral

fluids. Mildly dehydrated calves showing minimal skin tenting when the skin on the neck is pinched, sinking of the eye into the head, and eyes and mucous membranes are still moist are ideal candidates for oral fluids.

The thumb rules for the use of oral electrolyte fluid supplements for scouring calves can be met with the following steps. Reconstitute the oral electrolyte supplement and administer it according to manufacturer's recommendations. Administer the reconstituted fluid formulation at approximately 5 percent of body weight, which is 2 quarts for an 80-pound calf. How many times per day this is necessary depends on how much fluid the calf is receiving by nursing and how much fluid is lost through the diarrhea. Continued assessment of the scouring calf's condition is required in order to make good decisions regarding the frequency of fluid administration. Only administer oral fluids if the calf still has a suckle response. It is usually better to administer oral fluids by bottle with voluntary suckling.

Oral fluids can be given by esophageal feeder when the suckle reflex is weak, but this method places fluids into the rumen. Any calf with a very weak or absent suckle reflex should be given IV fluid therapy because oral fluids may pool in the rumen resulting in bloat and/or rumen acidosis. Any calf that is severely depressed and unable to stand requires intravenous fluids.

It is extremely important that the oral fluids chosen for rehydration will be able to increase blood pH. This is accomplished by alkalinizing agents; acetate and propionate are preferred over bicarbonate in nursing calves because they do not interfere with milk digestion. If calves are depressed and refuse to nurse, a hypertonic oral electrolyte product such as Calf-Lyte II HE or Enterolyte HE can be used. A "hypertonic" oral electrolyte product has a very

large amount of sugar in the preparation and has “HE” on the label for “high energy.” Hypertonic solutions can give greater nutritional support because of the higher glucose level yet they can cause bloat and increased diarrhea if the calf is unable to absorb this large amount of sugar.

Milk or milk replacers should NOT be withheld from scouring calves. None of the oral electrolyte formulas provide adequate protein and energy to replace milk. Calves should be allowed to continue nursing when receiving oral electrolytes when possible, as long as they exhibit diarrhea.

Electrolyte fluid administration is by far the most effective treatment for calves with scours and is most effective when it is administered aggressively and early in the course of the disease. If the calf becomes so severely dehydrated that it is weak and unable to rise, or if it has no suckle, intravenous fluid therapy may be the only way to save the calf’s life. Other treatments, such as antibiotics, may be beneficial but they are far less important than fluid and electrolyte replacement when it comes to calf survival.