

Dairy & Livestock

Keep scouring calves hydrated

BY SARAH MILLS-LLOYD

PRODUCERS understand neonatal calf diarrhea is a problem on their farms. National Animal Health Monitoring System data from 2007 reported an average calf mortality of 8% annually, with scours as the leading cause of death in unweaned calves at 56.5%.

Most causes of scours are preventable. However, the infectious causes of neonatal diarrhea are typically bacteria, viruses or protozoa. Other noninfectious causes that may contribute to neonatal diarrhea are:

- poor-quality colostrum
- poor sanitation
- stress
- inadequate ventilation
- adverse weather conditions

Regardless of the cause of a calf's diarrhea, one vitally important factor in the treatment of a scouring calf is maintaining

hydration — replacing the electrolytes and water lost to diarrhea.

Before you grab the packet of oral electrolyte solution, you first need to assess the calf's dehydration status, as this will determine the mode of treatment — oral vs. intravenous. Calves with greater than 8% dehydration will need intravenous treatment.

You can perform various tests to assess the hydration status of a scouring calf. These methods include demeanor, eyeball recession and skin tent. Each method has its own set of drawbacks, due to some level of subjectivity. Of the three, the eyeball recession and skin tent tests are the most important to perform.

■ **Eyeball recession.** With the calf's head loosely restrained, gently pull down on the lower eyelid and note the amount of space between the eyeball and the eyelid.

■ **Skin tent.** Pinch the skin on the neck of the calf, gently rotate it 90 degrees, and



Correlation between dehydration tests and percent dehydration

Dehydration	Demeanor	Eyeball recession	Skin tent duration (seconds)	Fluid therapy
<5%	normal	none	<1	oral
6%-8% (mild)	slightly depressed	2-4 mm	1-2	oral
8%-10% (moderate)	depressed	4-6 mm	2-5	intravenous
10%-12% (severe)	comatose — responsive	6-8 mm	5-10	intravenous
12%	comatose — unresponsive	8-12 mm	>10	intravenous
>12%	dead			

ADAPTED FROM G.W. SMITH VETERINARY CLINICS OF NORTH AMERICA FOOD ANIMAL 25 (2008) 55-72 AND M.A. WATTIAUX (2005).

then release. Count how long it takes the skin to return to normal.

Using the table, you can compare the outcomes of your hydration tests to the percent of dehydration. The outcomes of the tests and the equivalent percent dehydration should then be recorded in the calf treatment records for further comparison.

Calves with diarrhea will continually lose water and life-sustaining electrolytes. Therefore, it is imperative these calves are identified early in the course of their disease and treated with the appropriate mode of hydration to establish the best outcome.

While information in this article has been thoroughly researched, it is not intended to replace the advice of your veterinarian. Veterinarians are the stewards of current knowledge and information regarding the prevention and treatment of calf diseases. Only through an established veterinarian-client-patient relationship, or VCPR, will a veterinarian be familiar enough with your animals and management practices to help develop protocols suitable for your farm.

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Wisconsin places 7th at Skillathon

WISCONSIN 4-H was represented well at the National Livestock Skillathon contest held at the 2015 North American International Livestock Exposition in Louisville, Ky. A team from Marathon County participated on behalf of Wisconsin. They included Katelyn Zimmerman, Nathan Utecht, Emma Walters and Jake Thunder. The team was coached by Mark Zimmerman.

The Wisconsin team finished seventh overall, with Utecht earning ninth place overall as an individual and receiving an All-American buckle. Thunder placed fifth overall in individual evaluation, and Utecht, Walters and Zimmerman placed 14th, 17th and 20th overall, respectively, in individual identification. Nineteen teams from across the country participated, with 71 individuals.

Marathon County 4-H teams are no stranger to national competition. Marathon County 4-H represented Wisconsin at this national contest in 2010, and that team was named the national champion. Much of the county's success is due to each team's willingness to practice and gain knowledge in these areas, along with a great coach, Mark Zimmerman, who has encouraged youth in contests for many years.

Wisconsin was reserve national champion three times before bringing home the national banner in 2010.

Marathon County earned the right to compete at this year's national contest by winning the senior division at the 2015 State 4-H Livestock Quiz Bowl and Skillathon event. Make plans to participate in the 2016 state competition, scheduled for March 5, at University of Wisconsin-Madison. Find more information about the livestock quiz bowl and other youth livestock educational events at the Wisconsin Youth Livestock Web page, fyi.uwex.edu/youthlivestock/programs/quizbowlskillathon.

Source: UW Extension



7TH IN NATION: Marathon County 4-H Livestock Skillathon team members (back, from left) Nathan Utecht and Jake Thunder pose with coach Mark Zimmerman and Bernie O'Rourke, Extension youth livestock specialist. (Front, from left) Emma Walters and Katelyn Zimmerman are the other two team members.