

CALVING EASE

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SUMMERTIME CALFCARE

Summer means hot weather. Hot weather means calf raiser's "alert." Why "alert?" In every season of the year calves need water. But, in summer the need for water seems more critical. This ingredient is easily accessible, relatively cheap but often neglected.

What about my regular calves - healthy ones?

Do you remember how much water a calf needs daily for ordinary maintenance? Depending on the size of the calf, she needs about six and one-half to eight pints daily. That's just for ongoing living. We're not talking here about sick calves. Just ordinary healthy little calves in the range of 80 to 100 pounds that are still on milk.

Since milk is about eighty-eight percent water, a calf drinking four quarts of milk daily will take in approximately three and one-half quarts or seven pints of water. As she gets larger her daily water maintenance needs will increase. Heinrichs estimates water needs of a one-month old calf in the range of 1.3 to 2.0 gallons daily (10.4 to 16 pints).

Have you a calculator handy? If you are feeding four quarts of milk daily (seven pints of water) to a one month old calf and she needs about 12 pints of water daily, how many more pints of water does she need daily to meet her maintenance needs? Our answer is five more pints - daily! If she gets only milk and no supplementary water, summertime heat may very well result in a low level of dehydration. That's evident in slower body movements, slower eating, decreased starter intake or, in "veterinarian-ese," mild depression.

What about scouring calves?

The calf that seemed a little slow in getting up at AM feeding by PM feeding is too weak. Not an uncommon scene in hot summer weather with scouring calves. McGuirk estimates that young calves may lose five to ten pounds of body weight in a day due to diarrhea. Most of the loss is fluid - water. Let's go back to the maintenance needs of the calf for water. Recall from above we said a 100 pound calf needs eight pints of water daily just for maintenance. If this same calf has severe scours she will need an additional ten pints to replace diarrhea losses. What does that add up to? A whopping eighteen pints (more than two gallons!).

Even a light case of scours at ten days to two weeks of age can put a calf down in hot weather. Figure out why. She needs eight pints of water daily for maintenance. She needs another two

pints to replace the small amount of water she's losing from diarrhea. That adds up to ten pints of WATER daily. She gets about seven pints from her two milk feedings. Where does she get the other three pints from? If we don't provide supplementary water she's likely to be down by the second day of scours and out by the third! That's one more reason for providing careful observation several times daily of each calf. Especially true for calves under three weeks of age.

What do I look for - how can I recognize dehydration?

At a low level (up to five percent of body fluid missing), dehydration isn't easy to recognize. The symptoms of mild depression (slow body movements, slower than normal eating milk, decreased starter intake) are also symptoms of an elevated body temperature often due to pneumonia. Water is a universally safe treatment and an extra pail of free-choice water is inexpensive.

At a moderate level (between six and eight percent of body fluid missing), dehydration is easier to spot. The calf usually can still stand with difficulty, has sunken eyes, tight skin, and mouth and nose are often dry. This is the calf we should have given extra water to last night but forgot her. Many times an oral electrolyte solution works to rehydrate these calves. If the calf is toxic from an E. coli intestinal infection, however, feeding water or electrolyte solution often won't successfully rehydrate the calf quickly enough to prevent death at this stage.

At a severe level (nine to eleven percent of body fluid missing), call for emergency help. Calf is down, weak, dry mouth and nose, legs and ears are cold. Get your veterinarian's assistance in providing fluids. Even immediate fluids IV won't save all of these victims of dehydration.

References: Dr. Sheila M. McGuirk, "Scouring Calves Require Energy and Fluids," Hoard's Dairyman, January 10, 1992. Calf management notes from Dairy Herd Management including "Give Calves Enough Water", July 1994 and "Know the Signs of Dehydration" January, 1996.

Calf Raiser's Tip

Summer means hot weather. Hot weather means that fresh colostrum from a cow will remain near 100 F for quite a while unless cooled artificially. Fresh colostrum at 100 F is an excellent place for bacteria to grow, rapidly. The general rule of thumb for estimating bacterial growth in milk at a cow's body temperature is "double every twenty minutes." Warm colostrum that starts at 30,000 bacteria per ml could easily have doubled twice in the first hour and three more times in the next hour! That's right, start at 30,000, up to 120,000 by the end of the first hour and probably close to 1,000,000 by the end of the second hour. Imagine this. A fresh cow is milked at 5:00 AM. The colostrum sits in the warm parlor until 7 AM. Then it's put into a refrigerator (takes a while to cool down in refrigerator, also). Result? Bacteria count of 4 million before the colostrum is cooled to 34-38 F. "Double every twenty minutes." Quality colostrum in summer's hot weather means getting it chilled right away! Pam and Sam keep gallon plastic jugs of frozen water on hand to put into the five-gallon pails that the colostrum will be poured into from the milker bucket - instant chill!

Bonus Tip for July. This is the season for flies. Sam already had one calf in June with fly maggots on her rump. Catch her early and save yourself a lot of grief. Watch for patches of hair falling out of rump, tailhead and tail. Please remember that Lindane (most common ingredient in

screw fly spray bombs) is absorbed through the skin. That includes not only the calf's skin but yours, too. Lindane kills by affecting the central nervous system - nasty stuff. It's a good idea to keep unprotected hands out of the spray and to wash thoroughly after each use. Warm soapy water followed by a hydrogen peroxide rinse will work, also, to get rid of the maggots.

If you know of someone that doesn't currently receive **Calving Ease** but would like to, tell them to **WRITE** to **Calving Ease**, 11047 River Road, Pavilion, NY 14525 or to **CALL** either 585-591-2660 (Attica Vet Assoc. office) or 585-343-8128 (Offhaus Farms Office) or **FAX** (585-591-2898) or **e-mail** sleadley@frontiernet.net or pams91@2ki.net . A limited number of back issues may be accessed on the Internet at www.calfnotes.com and clicking on the link, Calving Ease.