

CALVING EASE

JULY 2003

with **Sam Leadley** of Attica Veterinary Associates & **Pam Sojda** of Offhaus Farms

SUMMER, CALVES & WATER

Water is an essential element for growth. Our core business as calf raisers is growth. Therefore, a central concern of every calf raiser is managing water consumption.

Ideally, our goal is to have optimum consumption of water by every calf every day. Realistically, most of us would settle for reasonably good water intake for most of the calves most of the time. This is especially important during warm summer months. During hot conditions calves spend more time standing than in cooler weather. In addition their respiration rate rises as outdoor temperatures go over 70°. Both of these hot weather behaviors mean increased water losses.

Water Quality Questions

Of course, overall water quality is a year around issue. Is the water supply free from harmful bacteria and parasites? Is the water low in noxious mineral contaminants that make it unpalatable? Let's assume that the answer to these questions is, "Yes." We are starting with clean, palatable water.

But, having a good water supply does not equal good water for the calves. When hot weather arrives we often have to supply more water daily for our calves. If we are feeding from a barrel or tank that could mean extra trips. Sometimes scrounging up a larger tank from around the farm solves the problem of extra trips. A word of caution! Be sure that this larger tank is clean. Be sure that it has not been used previously for fertilizers or chemicals. Even the transfer hose can be suspect. That length of 2" hose with quick attach fittings looks very tempting as a way to transfer water rapidly – but has it been used for transferring liquid fertilizer or spray chemicals? Better to be safe and check rather than take a chance and poison calves.

Another quality issue in summer comes from the condition of the calf water pails. If your calf enterprise is set up to use one set of buckets just for water (not feeding milk and water from same pail) then algae growth often is a common summer problem. That green scum seems to reduce water palatability. Weekly scrubbing of water pails is a good practice. Disinfecting the pails to reduce bacteria loads doesn't seem to be worth while since the problem is primarily algae.

Water Quantity Questions

At one time we thought that water for calves less than two weeks of age was a waste of time. Then by observation we learned that some small calves do drink a fair amount of water. Frequently these calves are the ones that have diarrhea. Scouring but otherwise healthy calves need lots of fluids. Most of them seem to know of their need for fluids and will drink water to meet this need. Since these calves are aware of their needs before we even notice that they are

scouring it makes sense to just provide plenty of water all the time to all young calves.

Rumen lining development depends on the end products of calf starter grain fermentation. This fermentation process works well when the calf eats starter grain and drinks water. Grain without water does not ferment well. In order to promote early, rapid and efficient rumen development we want our calves to drink water (remember that the milk doesn't go into the rumen, only water goes there).

Every calf raiser has observed that calf starter grain and water consumption go hand-in-hand. Calf eats more grain, drinks more water. Or, calf drinks more water, eats more grain. The order doesn't matter. They go together. But summer heat is a problem. Generally, very hot weather hurts grain consumption, especially in the hottest hours. In order to promote the best grain consumption rate during summer we need to have plenty of water in front of calves. This is especially true overnight as the temperatures go down and calves become more active in the evening and very early morning.

Every calf raiser has been frustrated by the large quantity of water consumed by the oldest calves we have in individual hutches or pens. They are either being weaned or have been weaned recently. On hot summer days these nearly two month old calves often increase their water consumption from ten quarts to twenty quarts a day. For these calves a number of calf raisers have resorted to using five-gallon pails clipped to the hutch or pen. During the last week or ten days that these oldest calves are in individual pens or hutches the larger pail filled once daily provides continuous water at a reasonable labor cost.

Does this emphasis on water availability seem unrealistic? If it sounds impractical, remember that most of a calf's growth is water. Remember that efficient feed conversion into body tissue depends on water. Disease free weaning depends on plenty of free-choice water the three weeks prior to weaning. Healthy calves depend on water in order to grow rapidly and efficiently.

Calf Raisers Tip

A reader, Margie Andrews from Randolph NY, sent this note about her "calf recording" method. "I use colored clothes pins to mark calves that have been treated. I use a small clothesline above the calf stalls. ... I use blue for antibiotic/ respiratory treatment, white for scours treatment, and red for calves that I am watching closely. This (red) pin is removed once they are healthy again. The others stay on the line until the calves move out of the barn. I put up as many pins as I have treated them. For example, two respiratory treatments, two blue pins."

For reprints of Calving Ease, write to Calving Ease, 11047 River Road, Pavilion, NY 14525. Order by date or title. Prepaid orders only. Please make check or money order payable to Sam Leadley. The first reprint title costs \$1.00. Additional reprint titles when requested in one order cost an additional \$.50 each. Full sets of reprints (10 yrs) are \$40.

Apr,'94 Bedding (Comparison of five types)
May,'94 A Note on Scours Treatment (comparison of 3 methods with weight gains)
Mar,'96 Esophageal Groove: Or, Where Does the Milk Go? (ref. R.W. Blowey)

Jan,'97 Rumen Development
Feb,'97 Newborn Calf Care
Mar,'97 Body Temperature
Apr,'97 Inconsistent Starter Consumption
May,'97 Heifer Identification
Jun,'97 Reminders for Warm Weather Management
Jul,'97 Dairy-L, DairyNew and CalfNotes: Electronic Tips for Calf Raisers

Aug,'97 No-Colostrum Calf
Sep,'97 Feeding Fermented Transition Milk
Oct,'97 Me? Sick from a Calf?
Nov,'97 Cleaning Plastics
Dec,'97 Time Saving Tips for Calf Raisers

Jan,'98 TLC
Feb,'98 Money Saving Tips for Calf Raisers
Mar,'98 The Frustration of Cryptosporidiosis
Apr,'98 Weaning Stress in Healthy Calves
May,'98 Vaccination Records
Jun,'98 Preserving Colostrum Quality
Jul,'98 Coccidiosis and Heat Stress
Aug,'98 Growth Rates for Preweaned Calves – Rates from Published Studies
Sep,'98 Consistent Growth, Desirable but Hard to Achieve
Oct,'98 Growth Rates for Preweaned Calves – Rates from Two Farms
Nov,'98 The Challenge of Variations of Maturity and Size
Dec,'98 Cleaning Plastics: Questions and Answers

Jan,'99 Hay: More Thoughts on Which to Ruminant
Feb,'99 Calves and Cold Weather in Wisconsin
Mar,'99 Safety at Clean-Up Time
Apr,'99 Newborn Poops
May,'99 Blood Serum Total Protein
Jun,'99 Fly Control for Calves and Heifers
Jul,'99 Caring for Twins
Aug,'99 Growth Rates for Weaned Heifers
Sep,'99 Basics for Feeding More Than One Pound of Milk Replacer Powder a Day
Oct,'99 Milk Feeding for an Accelerated Feeding Program
Nov,'99 Grain Feeding for an Accelerated Feeding Program
Dec,'99 Care and Feeding of Calf Raisers

Jan,'00 Cold Weather and Newborn Calves
Feb,'00 Measuring and Mixing Milk Replacer
Mar,'00 Decontaminating Feeding Equipment
Apr,'00 Heifer Colostrum: An Overlooked Resource
May,'00 Mama's White Bread Recipe
Jun,'00 Water: A Vital Element for Calf Growth
Jul,'00 Beginning to Eat Starter Grain
Aug,'00 Aim for Fewer Pathogens at Calving
Sep,'00 Scours in Two-Week Old Calves
Oct,'00 Quality of Starter Grain
Nov,'00 Feed Bunk Space for Heifers
Dec,'00 Vaccination Does Not Equal Immunization

Jan,'01 Cold Weather and Energy for Calves
Feb,'01 Biosecurity When the Vet Works w/ Calves
Mar,'01 Newborn Navel Care
Apr,'01 Accelerated Growth: An Elusive Goal
May,'01 Mastitis and Flies
June,'01 Coccidiosis and Three-Week Old Calves
July,'01 Using Electrolytes
Aug,'01 Wholesome Colostrum
Sep,'01 Habits: Good and Bad
Oct,'01 Maternal Immune Cells in Colostrum
Nov,'01 Good Colostrum Management
Dec,'01 Improving Heifer Handling (Part 1)

Jan,'02 Improving Heifer Handling (Part 2)
Feb,'02 The Right Temperature Water
Mar,'02 Colostrum: The 4 Quart Myth (Part 1)
Apr,'02 Colostrum: The 4 Quart Myth (Part 2)
May,'02 Value of Colostrum Feeding
Jun,'02 Goals: Measuring & Recording (Pt.1)
Jul,'02 Goals: Summarizing & Analyzing (Pt.2)
Aug,'02 Heat Stress and Calves
Sep,'02 Abomasal Ulcers
Oct,'02 Scours: Make a list and check it twice
Nov,'02 Coccidiosis and Young Calves
Dec,'02 Coccidiostats and Murphy's Law

Jan,'03 Scours are NOT "Normal"
Feb,'03 Pooling Colostrum
Mar,'03 Calf Care and Husbandry
Apr,'03 Bottle Feeding
May,'03 The "Only" Way to Raise Calves
Jun,'03 Little Slipups Add Up
Jul,'03 Summer, Calves and Water