

DAIRY PIPELINE

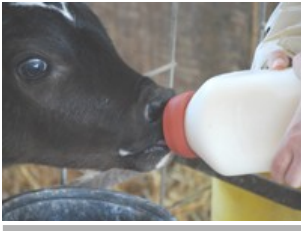
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“It’s apparent that calf feeding rates need to be increased during the winter.”

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FOUR QUARTS IS NOT ENOUGH!

Winter weather has arrived or will be here soon and calf feeding programs need to change. Calves are especially susceptible to cold stress for several reasons. This is especially true for calves during the first three to four weeks of age before they begin consuming measurable quantities of calf starter grain.

First, these are small animals that lose body heat much more quickly than larger animals because they have a larger surface area. The smaller the calf, the more important this relationship becomes. Virginia Tech research revealed that small calves, such as Jerseys, had a maintenance requirement which was at least 15% higher than large breed calves such as Holsteins.

Second, the environment has a significant impact on maintenance requirements. During the winter, calves require deep, dry bedding to help them maintain the insulating capabilities of their hair coat. A wet environment with limited bedding greatly enhances heat loss.

Third, calves are born with relatively low reserves of body fat that they can mobilize during periods of low energy intake or environmental stress. The impact of cold weather on nutrient requirements is demonstrated by the following example with a calf weighing 100 lb.:

- ◆ At 68°F feeding one gallon of a milk replacer with 20% fat provides enough energy for about .5 lb. of daily gain.
- ◆ When the temperature drops to 41°F, four quarts of milk replacer is just enough to meet their maintenance requirements with nothing left for growth.
- ◆ If the milk replacer has only 15% fat, then then 4 quarts of milk replacer is sufficient for maintenance at 50°F.

Another stress occurs due to the fact that most calves are fed equal amounts early in the morning and again later in the afternoon. Imagine the nutritional stress calves face during the long interval between the evening and morning feeding when the temperature drops at night. It’s apparent that calf feeding rates need to be increased during the winter. A 20% fat milk replacer is highly recommended over those with lower fat content. Feeding rates should be increased by 50% or doubled under extreme cold. Feeding 1.5 gallons of a 20% fat milk replacer reconstituted to 12.5% solids provides sufficient energy for .23 lb. of gain at 32°F. However, it would take 2 gallons of this liquid to maintain a growth rate of .4 lb. at 20°F. In response to our research indicating the higher susceptibility of small calves to cold stress, a 25% fat milk replacer was developed for Jersey calves.

Additionally, successful management of calves during the winter involves creating a dry, stress free environment with deep bedding and protection from drafts and dampness. Calf coats can help reduce heat loss if they are kept dry. Finally, it should be apparent that feeding management must change to enable calves to grow and resist digestive and respiratory disease. Don’t skimp on liquid feeding programs, especially during the first weeks of life when calf starter intake is low. Savings by limit feeding milk or milk replacer to less than 1.5 gallons daily (12.5% to 15% solids) or use of a poor quality milk replacer may reduce feed costs, but substantially increase treatment costs and possibly lead to conditions which lead to increased mortality and a restriction of lifetime performance of the animal.

—Bob James,
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ACTIVITIES

February 15-17, 2012—Virginia State Feed Association/ Virginia Tech Dairy Nutrition Cow College. Hotel Roanoke. Program with special emphasis on feeding management on dairy farms; sourcing feed ingredients; controlling feed quality of forages and grains; Feed and forage evaluation; Accurate TMR mixing and delivery. Call 540-231-4770 or visit <http://www.cpe.vt.edu/vsfa/> for additional details.

If you are a person with a disability and require any auxiliary aids, services or other accommodations for any Extension event, please discuss your accommodation needs with the Extension staff at your local Extension office at least 1 week prior to the event.

For more information on Dairy Extension or to learn about current programs, visit us at VT Dairy —Home of the Dairy Extension Program at: www.vtdairy.dasc.vt.edu.



Bob James,
Dairy Extension Coordinator &
Extension Dairy Scientist,
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2011 BOVINE PRACTITIONER OF THE YEAR

The following citation was given by Dr. Keith Sterner at the presentation of this prestigious award to Dr. Don Gardner of Huddleston, Va. Congratulations and thanks for your service to the dairy industry of Virginia.

Of all the achievements that AABP recognizes from its membership, the Bovine Practitioner of the Year most symbolizes the heart and soul of this great organization because it allows for accolades to be properly accorded to an individual practitioner working to make a tangible difference for their clients in the commercial world. In virtually every instance, these individuals have not only excelled in the world of veterinary practice but also in their local communities and states as well. This year's nominee is no exception to that tradition of excellence and it is my distinct pleasure to briefly outline a few of this individual's accomplishments.

Our 2011 awardee was born in Oklahoma and grew up on a ranch where his close proximity to livestock, both beef and dairy, provided him with the inspiration to attend veterinary school, as well as a deeply ingrained work ethic and pragmatic approach to problem solving. He graduated from Oklahoma State University College of Veterinary Medicine in 1970, but unlike the traditional migrational advice of heading west, this young man and his classmate wife Susan headed east to accept a job in a mixed practice in Roanoke, Virginia. From there they established their own mixed animal practice in Bedford County, Virginia. It was here that our nominee began developing the skill set for a career in production medicine. In 1980 the practice was sold and our nominee's wife retired for the first time to help with their ancillary farm operation and to raise their first son, Andy. In addition to the practice, their farming operation included a cow calf component and the birth of a second son, Sam. During this time, our nominee honed his production medicine skills at virtually every annual AABP meeting and his face is a familiar one to most of us, as he has been very active on several committees,

most particularly the animal welfare committee. When there have been issues dealing with drug availability and dispensing he is often seen and heard taking a stand in public forums for doing the right thing, and this includes admonishing regulatory authorities to be more forceful in addressing and enforcing some of the more egregious violations that have been well known to the average practicing veterinarian. He has been active in the Virginia Academy of Food Animal Practice, serving as its president and is currently its long standing secretary-treasurer. He was named the 2006 Milk and Beef Quality Assurance Program Veterinarian of the Year, and currently serves on the Bedford County Agricultural Advisory Board. Their farm and replacement heifer facilities have been the recipients of numerous awards for quality and conservation practices. Perhaps our nominee's most obvious notoriety with fellow bovine practitioners stems from his involvement in developing and refining the Professional Dairy Calf and Heifer Association into the sophisticated organization it is today. He was a charter member of their board of directors and has served in many of their office positions including treasurer and president. He was awarded DCHA's highest honor, the Roger Cady Award for Leadership, Dedication and Perseverance, in 2004.

In addition to all of his veterinary and civic related activities, our nominee actually does spend a bit of personal time outside of veterinary medicine and occupies those rare moments with gardening, fishing and shooting sports—be it clays or pheasants and ducks with family and friends.

I feel very fortunate to be able to call him both colleague and friend and value his great good judgment and common sense approach to problem solving as he always seems to see straight to the heart of an issue. Anyone that is on AABP-L can see from his regular posts that he is not afraid to 'call them as he sees them'.



Dr. Don Gardner

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