

Calving Ease

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Preventing Scours and Pneumonia vs. Treating Sick Calves

- Long-term consequences of calfhood scours and pneumonia.
- Shifting emphasis to “calf wellness” rather than treating “scours” and “pneumonia” calves
- How to start a “calf wellness” program

Long Term consequences of calfhood illnesses

In a summary of research using two large dairy farms Dr. Mike Overton gave us a listing of the impact of infections resulting in scours and/or pneumonia during the first 70 days of life. These are listed:

- Weight at 90 days of age: calves treated for scours weighed 3.1 lbs. less than healthy calves
- Weight at 90 days of age: calves treated for pneumonia weighed 12.7 lbs. less than healthy calves
- Likelihood of being culled before first calving: pneumonia calves were 2.8 times as likely to be culled compared to healthy calves. No difference for scours calves.
- Likelihood of being culled after calving and before 150 days in milk: first-calf heifers treated for pneumonia as calves were 1.4 times as likely to be culled compared to healthy calves. No difference for calves treated for scours.
- Milk (305 day estimated ME): 649 pounds less milk for first-calf heifers treated for pneumonia as calves compared to healthy calves.

Bottom line is that both scours and pneumonia depress the growth of the animals as heifers and milk production after calving.

How can we shift to “calf wellness” from treating “sick” calves?

Step Number 1: Commit to a regular schedule of collecting information about the calves and the production procedures. Examples might be blood samples for blood serum total protein analyses, “as-fed” colostrum samples to culture for bacteria levels, heart-girth tape weights at birth and weaning to get valid growth rates.

Step Number 2: Commit to using “calf facts” (from Step #1) to drive decisions to improve production procedures in the calf enterprise. This where it is good to bring in the herd veterinarian to get a broader view on calf health. For example, blood serum total protein numbers are okay for weekday calves and

awful for calves born on the weekends. Hummmm. We need to look into what is going wrong with weekend colostrum feeding – not being fed promptly? Not being fed the full volume? Not being fed good quality colostrum?

Step Number 3: Commit to monitoring the performance of the calves. The three key performance measurements are: (1) calves alive vs. dead – mortality rate, (2) calves healthy vs. sick – morbidity rates for pneumonia and scours, and (3) calf growth – usually measured in weight gain, often for the full milk-feeding period.

How to Start a Calf Wellness Program

I suggest sitting down with the herd veterinarian to set performance goals for your calf enterprise. For example, what are the current levels of performance and where do you aspire to have the enterprise be at this time next year? For example, if the current pneumonia treatment rate is thirty-five percent what do you and your herd veterinarian consider to be an achievable goal for next year?

Performance goals set out by the national Dairy Calf and Heifer Association for calves up to weaning are:

1. Survival rate = at least 97 percent
2. Pneumonia treatment rate = no greater than 10 percent
3. Scours treatment rate = no greater than 15 percent.

With these goals in mind go on to review and set production standards. These might include (1) Newborn care, (2) Colostrum administration, (3) Nutrition and water feeding, (4) Health management, (5) Housing environment, (6) Handling and transportation, (7) Biosecurity and (8) Euthanasia. [A full listing of these standards is found in the DCHA Gold Standards publication.]

For example, in colostrum management we would include colostrum harvest – “Collect first-milking colostrum within 4 hours of calving. Colostrum delivery – “Hand feed colostrum to 10% of calf’s bodyweight within the first 2 hours of life.” Colostrum handling – “Test for quality with an on-farm tool such as Brix refractometer or colostrum tester.” “Periodically measure bacteria count of colostrum as it is fed to calves” using the standards of no greater than 5,000cfu of coliform bacteria and no greater than 50,000cfu of standard plate count bacteria.

Further, in colostrum management we often include a measure of how successfully we are getting antibodies into the blood of the newborn calves. The standards set in the DCHA Gold Standards are (for maternal colostrum):

Blood serum total protein values greater than 5.2g/dl = 90 percent of calves.

Blood serum total protein values greater than 5.5g/dl = 80 percent of calves

The bottom line is that the shift to “Calf Wellness” is a matter of attitude toward managing the calf enterprise. How much emphasis do we want to put on being proactive compared to reacting to “bad” stuff? Do we want to plan for success or just bounce from one crisis to another? See also calf wellness program resources at www.calffacts.com – scroll to “Calf Wellness”

Reference: Overton, Mike “Importance of Producing a Quality Dairy Replacement Heifer.” Proceedings of the Dairy Calf and Heifer Association, 2016, pp 55-59. DCHA “Gold Standards: Setting Benchmarks for your herd’s future” 2016.

Remember to search for “Calves with Sam” blog for profit tips for calf rearing.