



ONE STEP AHEAD

Minimizing bovine respiratory disease in your calves will ensure their best growth and future health

Bovine respiratory disease (BRD) remains a common challenge and source of loss when raising calves. BRD typically arises from a misbalance between:

- Stress, which compromises the calf's immune system – stress can reach high levels when weaning occurs in conjunction with re-grouping and ration changes;
- Pathogen exposure – often increases with re-grouping at weaning, but can occur any time calves are exposed to other calves, especially sick calves, those of a different age, or from other farms.

Whether a calf develops BRD is influenced by risk factors similar to other diseases, including diarrhea. The calf requires early immune protection from colostrum and sufficient nutrition for growth and development. However, BRD is also heavily influenced by the environment. While housing and ventilation are critical, it can be particularly frustrating to have to manage BRD outbreaks when dealing with fluctuating temperatures.

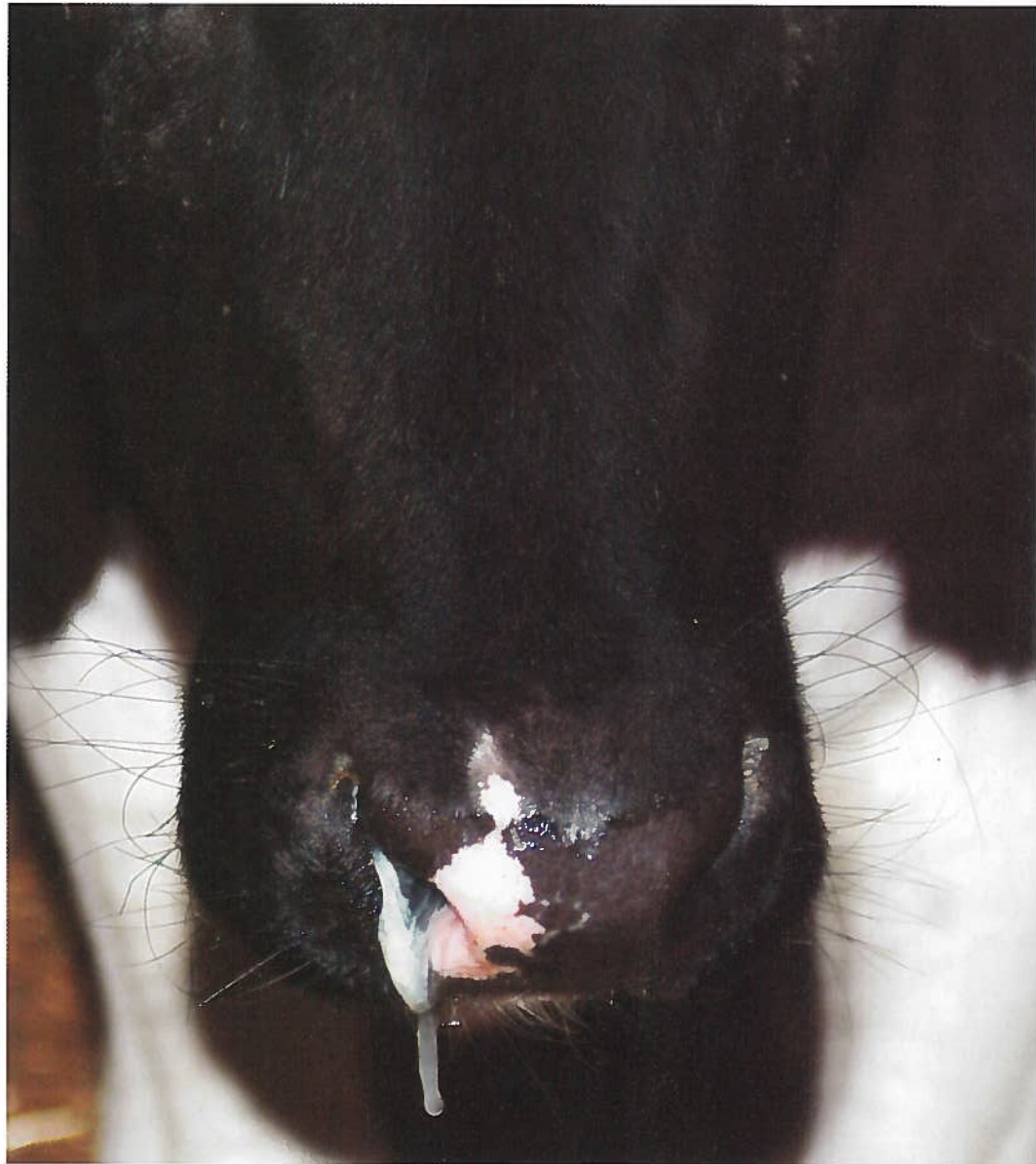
Often, by the time BRD is identified, irreversible damage has occurred to the calf's lungs. Beyond the cost of treatment, this lung damage can result in many indirect costs due to decreased growth, increased mortality, increased age at first calving, and risk of dystocia in heifers. Research by Amy Stanton from the University of Guelph reinforces the long-term negative effects of BRD, such as:

- Decreased average daily gain up to nine months of age, and a 30 kilogram difference in weight past this age;
- Increased age at first calving. The median age was two weeks older.

Some farms, which have low culling rates for BRD calves, showed decreased milk production at the first milk test.

PREVENTION

If you're experiencing an ongoing, high inci-




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dence of BRD, try to identify causative agents and other risk factors, such as poor ventilation and housing. Stanton recommends the following prevention strategies to give calves the best start:

- Move the calf from the dam into a separate barn, preferably within 12 hours of birth, but not longer than 24 hours, to prevent spread of pathogens from cow to calf;
- Use a local anesthetic with some analgesics to help reduce the stress of dehorning;
- Make sure calves are ready to transition from milk to calf starter. A good guideline is to ensure they are consuming 450 to 900 grams of calf starter for several days in a row before you remove the milk;
- Ensure ample fresh, clean drinking water to help stimulate the calf starter intake and rumen development;
- Vaccination shortly after birth on the dairy farm or shortly after arrival on the veal farm can help prevent BRD before it begins to negatively impact health and productivity. Intranasal vaccination is especially effective because these vaccines control BRD in the calf's upper respiratory tract, before infection reaches the calf's lungs.

It is particularly important to minimize stress at weaning; even if calves do not experience BRD, stress can yield other negative effects, likely resulting in reduced growth post-weaning. Producers are advised to minimize and spread out stressors that have traditionally occurred all at once during weaning. When possible, individually housed calves could be introduced in small groups and to new feed before being moved to a larger group.

Consider how you can minimize BRD in your calves to ensure their best growth and future health. 



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