Vet Call

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Bovine respiratory disease — part 2

Early detection of bovine respiratory disease (BRD) is important in order to increase the likelihood that treatment will be effective. If BRD cases are identified early, modern treatment plans are likely to succeed; but if BRD cases are not detected until late in the disease course, all treatment plans are likely to fail. The result of late detection of BRD cases is an increase in the number of re-pulls, chronics, railers and dead cattle.

Finding sick cattle

Feed and/or hay should be present in the bunk prior to the cattle being observed. This allows producers to identify the cattle that aren't coming up to the bunk. Producers should observe and listen for a period of time before they enter the pen, so that undisturbed activity and coughing can be evaluated. Once producers enter the pen, they should try to determine if any animal looks or acts sick.

Sick cattle may lack rumen fill or show signs of nasal discharge or increased respiratory rate and/or difficulty.

Rumen fill is important to evaluate because sick cattle often do not eat, and cattle that do not eat often become sick. Sick cattle may also tank up on water but refuse to eat hay or grain. These calves are gaunt high in the flank, but have a pendulous belly.

Rumen fill is more difficult to evaluate in cattle that have been on feed for awhile because they are slower to go off of feed when they get sick, and the increased fat cover obscures the extent of "gauntness."

Thick nasal discharge is a common indication of respiratory disease; however, clear nasal discharge is not an indication of BRD.

Sick animals may act differently than their healthy penmates, as displayed by a decreased interest in their surroundings, lowered head and ear position, and reluctance to move. When the cattle are slowly moved around the pen, sick cattle often filter to the back of the group or even begin to lag behind or stop walking altogether. Mild to moderately affected cattle may improve their attitudes when being moved around the pen with the group, so cattle need to be observed while standing quietly, as well as on the move.

Previously treated calves, animals that have less fat cover than their penmates, and cattle that are a different breed or color than the majority of the pen often grab the attention of producers who are looking for sick calves. These cattle may not be sick at all; they may just attract attention because they have a different appearance or they are easily recognized.

Weather greatly affects the number of cattle that may become sick with BRD. The number of cattle needing treatment for pneumonia typically increases two to three days after they get wet. Any environmental extreme will increase the incidence of sickness, but getting wet will cause the greatest and most consistent increase.

Some producers mass medicate high-risk cattle at or near arrival with injectable, long-acting antibiotics in an effort to reduce the number and severity of sick animals. This strategy is cost-effective in some situations. If fresh cattle are received, and if there is sufficient skilled labor available, this practice may not be cost-effective. When there is a shortage of labor, or when employees are not highly skilled at detecting sick cattle early, mass medication may be a useful management tool.

It is of greatest benefit when it is used on high-risk, exposed cattle that are assembled from several sources or on extremely stressed calves. In many instances, one mass medication treatment will be as effective as a three-day program. Timing is important because mass medication administered too far in advance of the onset of illness or too late will be ineffective. The selection of antimicrobials should be based on previous culture and sensitivity data or on clinical response.

Treating calves with respiratory disease

Once cattle are identified as needing treatment for BRD, they are moved to a treatment area and treated with at least a three-day protocol of antibiotics. The antibiotics should reach effective concentrations in diseased lungs and should be effective against the bacterial organism that is causing pneumonia. Several very good antibiotic choices exist; however, the final determination of what product to use is based on how the antibiotic distributes itself in the calf's body, laboratory determination of susceptibility of the bacterial organisms to

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Finding sick cattle

- ► Observe cattle for signs of illness soon after feed is delivered to the bunk.
- ► Observe and listen for a few minutes prior to entering the pen — note the level of coughing and the cattle that are not eating.
- ► Slowly and quietly move cattle away from the feedbunk, and then let them return.

Cattle that look sick have:

- ► thick nasal discharge;
- ► lack of rumen fill (gaunt); and a
- ► pendulous belly (they fill up on water, but refuse feed or hay).

Cattle that act sick show a:

- ► decreased interest in surroundings;
- ► tendency to hold head and/or ears down; and/or
- ► reluctance to move (move without "purpose").

Avoid making mistakes

- ► Observe cattle before entering the pen; some sick animals will "perk up" when moved around.
- ► Some cattle that are not necessarily sick tend to attract attention because they:
  - • have been treated previously;
  - • have less fat cover than penmates; and/or
  - • are of a different color or type than penmates.

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the antibiotic, and previous clinical response on that particular farm.

Sick cattle are usually placed on a higher roughage diet than cattle in the home pen. The diet is routinely 60%-70% concentrate with at least a 15% all-natural protein level. Fresh hay and water are always available. Once calves have recovered, they are placed on increasingly higher concentrate diets to prepare them to return to their home pen. Cattle that don't respond to therapy with improved appetite, weight gain and respiratory function are determined to be nonresponders or chronics, and they are often sold as realizers.

Cattle that respond to treatment and return to their home pen, only to be pulled out of the pen at a later date for a second case of BRD, are called "re-pulls." A high incidence of chronics indicates that the cattle were not identified early in the disease process. A high incidence of re-pulls indicates that either the cattle were not evaluated properly at the end of the initial treatment period, or the initial treatment was not adequately effective.

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