

# Keep the Grim Reaper Away from Your Herd

By Daniel U. Thomson, Ph.D., DVM, Kansas State University

Death loss due to respiratory disease in feedlots has increased significantly over the last 10 years. The USDA Sentinel program shows that from 1994 to 2003 there has been an average increase in overall death loss by 69% (6% per year) and an increase in death due to respiratory disease by 119% in all cattle on feed. The main cause for the increased death loss in cattle is respiratory disease. Managing cattle prior to their arrival in the feedyard is the key to improving the health and welfare of feeder cattle.

Benchmark data reports from 53,101 steers, 46,757 heifers and 8,801 head of mixed cattle that closed out from Jan. 1, 1999, to June 30, 2002, had 1.23, 1.4 and 2.16% death loss, respectively. The data also showed that 35.4% of the pens had no death loss, 18.8% had 2% or greater, 3.8% had 5% or greater and 0.6% had 10% or greater death loss. Ninety percent of our death loss problems come from 10% of the cattle.

The first question that must be answered during a respiratory disease outbreak is whether it is due to increased morbidity or a case fatality rate problem. In my experience, over 90% of respiratory disease mortality outbreaks are due to increased morbidity. Rarely is increased mortality due to an inferior antibiotic when treating the cattle that are sick. You cannot manage respiratory disease with a bottle.

Why the increased morbidity? We then need to evaluate source of cattle, viral antigens, weather, people, prior nutrition, transportation, evenness of the cattle and cattle flow

into the feedyard.

The average arrival weight is a strong predictor of morbidity and mortality. Lighter cattle generally have higher death loss than the same source of cattle at heavier arrival weights.

## Geography Matters

Another cause for death loss is commingling and the origin of the purchased cattle. A 400-pound calf can come from different geographical regions and have a different physiological status. Northern calves (sale barn or ranch fresh), Southeastern sale barn

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cattle, Oklahoma/Texas sale barn cattle, Mexican cattle and cattle of dairy origin will all have different expectations at different times of the year at a similar weight regardless of their sex.

Castration upon arrival at the feedyard is very stressful to cattle. This problem is more common in lighter weight cattle than heavier weight cattle. Bull calves that are castrated after they arrive experience 140% more respiratory morbidity than their pen mates that were steers that were castrated before arrival. Mortality and realizer rates were also significantly higher in bulls relative

to steers (140% and 163%; mortality and realizers, respectively).

It is not uncommon to have 20% of the heifers pregnant on arrival. Some of the higher risk cattle will have even higher pregnancy rates. My experience is that 10% of the bred cattle will be further than 120 days in gestation. Needless to say, pregnancy in the feedyard is not good for the performance or health of the heifer. Death loss due to dystocia in the feedyard is avoidable and should be managed before arrival.

When calves arrive at the feeding facility, they need a dry place to lay down along with easy access to hay and water. Building mounds and spreading bedding out for calves is almost as important as vaccinating calves to prevent BRD.

We generally recommend that cattle are allowed to rest for one hour for every hour they were on the truck before processing them. We then use good cattle handling practices when we move them through the processing barn and to their home pen. The best pharmaceutical and biological tool we have to control morbidity in high risk calves from a bottle is mass treatment with an antibiotic labeled for such practices.

## Animal Welfare

One common breach in the cattle care team is not having enough people to handle the influx of high risk cattle. The more high-risk cattle you buy, the higher risk your low-risk cattle become due to the fact that we spend more time with the high morbidity pens. Increased number of high-risk cattle without enough people to handle the work load is detrimental to sick cattle



identification, treatment efficacy and employee retention.

The beef industry has done a great job of addressing animal welfare. Welfare pertains to the ability of the animal to cope with its external and internal environment. As we pass from good to bad welfare for cattle, we go from equilibrium to injury and disease to death. Death is the biggest breach in animal welfare. Death loss has to be considered more than an economic factor in our industry.

Feeding high risk cattle is exactly opposite of the efficiencies we have improved upon in the feedyard. Fortunately, we are discussing a small percentage of cattle that are fed. Some adjustments in how our industry buys and sells cattle may need to be changed to match the efficiencies and deficiencies we have created at the feedyard level. With welfare of cattle in mind, our industry should start with what reduces death loss.

Cattle need to be properly prepared for transition through the marketing channels. Preventative medicine and preconditioning are animal welfare.

We have all heard that producers don't think they will get paid more for preconditioned cattle relative to high-risk calves in the same weight class. Cattle feeders can either pay more for the preconditioned calves up front or more for antibiotics, death loss and lost performance. Would you rather pay more to someone who's in the business of raising and preparing calves for market transition, or someone marketing a product to make up for the shortcuts taken along with the death loss of the cattle?

*Dr. Thompson presented this topic at the Beef Range Cow Symposium in Fort Collins, Colo., Dec. 11-13.*

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