

## FEEDLOT MANAGEMENT

# Feedlot Health Series: Part I – Receiving

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So...the cows have been preg checked, and you've decided what to do with the opens. Now it's time to think about the calves. Which do you keep for replacements, which do you send to the feedlot. What happens to these calves will be the focus of a three part feedlot series: feedlot receiving, respiratory disease management, and acidosis and bloat in the feedlot.

As a feedlot owner, there are many management considerations involved with purchasing feeder calves. How the calves are handled at the farm of origin plays a major role in how those calves are received into the feedyard. Ideally, all calves entering a feedlot would be the "low risk," preconditioned calves, however, that is not realistic. This article will address some of the important management considerations for both "high risk" and "low risk" feeder calves.

### SHIPPING

Moving cattle is a very stressful event, and therefore cattle are immunosuppressed and are more susceptible to developing respiratory disease. Commingling also adds stress to already stressed animals. The group has to establish a social hierarchy, and cattle brought together from multiple sources are likely to carry different strains of pathogens. The combination of high stress levels and a smorgasbord of pathogens presents every feeder calf with a great opportunity to get sick.

### HIGH RISK VS LOW RISK CATTLE

"Low risk" cattle are preconditioned cattle. They have been vaccinated and weaned at least 30 days, and are bunk broke. These cattle are under a lower amount of stress because all of the major changes that occur in a calf's life have already taken place. These cattle are ready to get on full feed and start growing. There are many different names for various preconditioning programs, many of which are sponsored by pharmaceutical companies. They all have a few key requirements in common: deworming/delousing, vaccination with booster using a modified live vaccine, and calves must be weaned prior to shipment. These calves can generally command a higher monetary value, depending on demand, than can higher risk cattle. The feedyard owner/manager knows that there will be a much lower incidence of disease in preconditioned calves, and therefore, lower treatment costs, in terms of labor and drugs. He/she also knows that calves that remain healthy throughout the feeding period are more likely to attain a higher carcass quality grade at closeout.

"High risk" cattle are those that have had no vaccinations, do not know what feed is, and were weaned on the truck on the way to the sale barn. These calves are under significant amounts of stress, which results in significant immunosuppression. There is a very good chance that these calves will get

sick, regardless of how carefully they are handled upon arrival at the feedyard. Buyers likely won't pay as much for these cattle as they would for cattle that have been preconditioned.

### **METAPHYLAXIS**

It is fairly common practice to add a feed-grade antibiotic to the ration when starting calves on feed. One of the challenges this presents is that the calves must, on their own, ingest enough of the antibiotic to have its desired effect. This can be a problem because sick calves, those that would benefit the most from the antibiotic, are generally not eating. Therefore, metaphylactic therapy with a long acting injectable antibiotic is a more reliable, consistent option to feeding antibiotics. There are many choices on the market now, with durations of activity ranging from 3 days to 8 days and possibly beyond.

### **VACCINATIONS**

All calves that arrive at a feedyard should be vaccinated. Cattle that have been preconditioned should be boosted with a single dose of a modified live viral vaccine. Those cattle that have not been preconditioned should receive two doses of a modified live vaccine 2 weeks apart. The non-preconditioned calves should also receive a dose of a clostridial vaccine (7-way or 8-way, depending on geographical location).

Calves should not be worked off the truck. They should be allowed a chance to get comfortable with their surroundings prior to any handling. All of the procedures performed on calves received into a feedlot should be performed 12-24 hours after arrival.

### **DEWORMING/DELOUSING**

In the case of backgrounding/preconditioning programs, deworming/delousing may be a required part of the program. However, if the calves you are receiving into your feedlot are "high risk" type calves, those that have not received any vaccinations or have not been weaned. It is especially important for you to treat these calves with some type of dewormer upon arrival to your feedlot. By eliminating any parasite burden they may be carrying, you will increase gains and efficiency, and decrease the stress that the calves experience during their feedout.

### **IMPLANTING**

Implants are probably one of the most effective technologies used in the beef industry, not only in the finishing phase but also in the backgrounding/stocker phase. Implants' return on the investment has been long proven ranging from \$4 to \$10 per \$1 invested. Considering the beneficial effects on rate of gain (typical improvements in backgrounding are around 0.25 lb/hd/d) and feed efficiency, the use of implants could translate in an additional income of \$30 to about \$50 per head. Total improvements over non-implanted animals of up to \$67 per head may be obtained due to increased carcass value (greater rib eye area with less fat deposition) however whether you take advantage of this extra income or not will depend on your marketing strategy (finish your own animals, retained ownership, live or grid marketing, etc).

When we look at those figures and facts the question really becomes why should I not use implants? Perhaps the only case where you may not want to use them would be if you are planning on keeping any replacement heifers. Even though results are inconsistent, studies conducted implanting replacement

heifers showed that this may affect their later reproductive performance to some extent depending on age, type of implant and nutritional status.

Typically we hear that using implants in a backgrounding operation may hurt subsequent feedlot implants effectiveness, however several studies show that is not always the case.

It doesn't matter how well balanced your diet is if nobody is going to eat it ... That statement may sound trivial, but reflects what the number 1 priority is in newly arrived cattle: to get them to eat. Stressed animals will eat less and also will tend to have greater incidence of diarrhea, thus nutritional management in the first 2-4 weeks after arrival is critical in any feedlot or stocker cattle operation.

In the first 4 hours after arrival, the animals should have access to good quality grass hay, avoiding feeding any grain or supplement. Also withholding water during these first 2-4 hours will prevent overdrinking and incidence of diarrhea. After these initial hours it is critical to provide clean water, clean bedding and enough bunk space (1 ft/head initially, then 9 in/hd after adaptation period). These practices will reduce morbidity and mortality associated with the first hours upon arrival.

During the first week, grass hay should be offered free choice to stimulate intake. After that, increasing amounts of grain should be introduced gradually to reach 50-75 % of the diet at about 7 to 10 days after arrival. Common sources of grain to be used are corn grain or barley. Try to stay away from sources of energy that ferment rapidly in the rumen such as high-moisture corn, steam flaked corn or wheat. Using corn silage is

also a good option; however, you may have to include it in as high as 40 to 50 % of your diet to be able to supply enough energy. A vitamins and minerals supplement should be included to prevent morbidity associated with deficiencies of these nutrients.

Remember: if we can get the newly arrived animals to eat and prevent diarrhea (by feeding grass hay) we'll improve the overall health status and reduced morbidity and mortality. Those are the first key steps towards the economical success in feedlot operations.