

Receiving Program Considerations for Feeder Calves

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A survey of a Wisconsin livestock market in 2002 indicated only 7.5% of the cattle were announced as being vaccinated and boosted for bovine respiratory disease at the surveyed feeder calf sales. Typically, the health, management, and vaccination history for the majority of feeder calves sold at sale barns are not known to the buyer. At a sale barn, cattle are commingled with other cattle exposing them to diseases coupled with the stress of this experience, these calves are at a higher health risk when they arrive to their new home then cattle directly transported to the farm. According to the 2002 Wisconsin livestock market survey, calves not castrated, vaccinated, or dehorned resulted in a \$12/cwt discount. Some may view the strategy of purchasing these discounted cattle as money saving, but sometimes a little money saved in the beginning results in more money lost in the end. However, if a farmer is inclined to buy discounted cattle, which may need some additional care, here are some guidelines that should help reduce chances of having a wreck.

First, work with a veterinarian to assess how high risk these cattle may be for sickness. Some higher risk cattle include:

- recently weaned calves vs. yearlings
- cattle from several sources vs. one source
- cattle hauled a long distance vs. a short distance
- cattle not bunk or tank broke
- cattle not castrated or dehorned
- cattle not previously vaccinated

Other factors that can increase risk are weather conditions such as wide temperature fluctuations over a short time, cold/wet weather, and hot humid weather with high heat indexes.

A farmer should be prepared ahead of time, so that cattle arrive to a welcoming new home. The first thing is to get the calves eating and drinking water as soon as possible. Incoming calves should be fed long-stemmed average to high quality grass or grass/legume mix hay and farmers should avoid old, wet, or moldy hay upon arrival. One of the most critical nutrients to stressed calves is water, therefore farmers should provide plenty of clean drinking water. Some cattle have not seen a water trough or bunk, so a farmer may need to help the cattle find the water by putting water tanks on the fence line or allowing the

water to run over the tank. Cattle, which are not bunk broke, will need enough space so all the cattle can eat at one time and make sure feed is easily visible to the cattle. This way a farmer can monitor feed intake and make sure each calf is eating. Once cattle are consistently eating hay and drinking water, then grain or concentrates can be introduced and gradually increase carbohydrates. The ration can be started by feeding the ration on top of the long-stem hay starting 2 days to a week after arrival.



Another common disease for incoming feedlot cattle is coccidiosis. Cattle usually do not show clinical signs of the disease unless stressed by weaning, weather, shipping, or other diseases. The disease can be prevented through feed additives such as Amprolium and Decco. The preventative treatment should be fed for at least 28 days upon arrival. Rumensin and Bovatec can also be effective to prevent subclinical coccidiosis, but not effective for treatment of the disease.

Before cattle leave the sale barn or upon arrival at home, at the very least cattle should be dewormed, and given a Nasalgene/TSV2 vaccine for BRD for high-risk cattle. Another preventative measure to use with high-risk cattle is to treat all the cattle with a sustained release antibiotic, called metaphalaxis treatment. A mass treatment of antibiotic cannot be used if marketing naturally-raised cattle. For low risk, non-stressed, or naturally raised cattle, a farmer may wait until a disease outbreak and then treat only those calves, which are sick. Typically, an outbreak of bovine respiratory disease will occur around 5-14 days after arrival.

When an outbreak occurs, there comes a point when the best course of action is to stop treating individual calves and treat the entire group of calves. Two rules of thumb are when the number of new cases of Bovine

Respiratory Disease Complex (BRDC) increases to 10% or more for 3 consecutive days, or more than 25% of the calves need treatment on any one day. While not perfect, using these rules of thumb will help guide your decisions instead of reacting in the heat of the moment or failing to consider mass medication until after 60% to 80% of the calves have been treated. Mass medication may save time, reduce labor, and reduce losses in performance and mortality. When in the middle of an outbreak of BRDC it may be helpful to discuss these options with a veterinarian.

The following table gives drugs approved for BRDC, dosage levels, frequency of delivery, and estimated cost to treat a 500 pound calf. It is important to follow label recommendations and work with a veterinarian in order to avoid overuse of antibiotics, which may result in reduced effectiveness and antibiotic resistance.

Table 1. Drugs approved for treatment of Bovine Respiratory Disease Complex in beef cattle.

Drug	Dose/100 lbs body weight	Frequency	Estimated cost to treat 500 lb calf
Tetradure®	3-5 cc	once	\$4.05-\$6.02
Micotil®	1.5 cc	once	\$8.00
Excede®	1.5 cc	once	\$12.50
Nuflor®	6 cc	once	\$15.00
Draxxin®	1.1 cc	once	\$16.50

*Strategic Use of Antibiotics in Stocker Cattle, Virginia Cooperative Extension Service

Additionally, a farmer should monitor health twice a day upon arrival, and if possible place treated animals in separate pen to monitor more closely and reduce spread to other cattle in the pen. Also, new arrivals to the feedlot should be housed separately for the first 21-35 days to reduce the spread of a disease outbreak in the new cattle to cattle already on the farm.

Processing cattle can be performed once cattle have settled into their new home and are less stressed, which can be from 2 to 7 days after arrival. Vaccinations recommended for incoming cattle include:

1. IBR, BVD, PI3, and BRSV for respiratory diseases
 2. 7-way clostridial vaccine
 3. *Pasturella multocida* and *Mannhaemia haemolytica*, which can prevent secondary infections from BRDC
- Especially for BRDC vaccination, a modified live versus a killed vaccine is recommended for greater effectiveness.

Developing a valid client veterinary relationship will help a farmer make the correct product choice and

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use an appropriate vaccination protocol for their farm. In order for vaccines to be effective, proper handling and storage is critical and follow label directions for administration. If vaccines are mixed in the syringe or given in the similar place in the neck, this could render the vaccine ineffective. If calves need to be castrated or dehorn, avoid performing these procedures at the same time of vaccination and do when weather permits to reduce stress in the cattle. Not only is it advisable to not perform these procedures on cold, wet and rainy days but avoid very hot humid days as well. During the summer months it is best to administer vaccinations during a cool portion of the day in order to decrease the compounded effects of the cattle fever response to the vaccine and environmental heat stress, which in combination may cause permanent health damage or even death. Once cattle are up on feed and healthy, then cattle can be implanted if the farmer wants to use implants in their management program.

If farmers are considering purchasing lower priced, higher health risk cattle, they need to have a good plan in place to attempt to reduce health problems for these calves. In addition, the farmer should have a response plan for disease outbreaks to keep costs under control and reduce losses in cattle performance. Ignoring these important considerations can result in significant economic losses to the farmer.



Resources

Factors Effecting Wisconsin Feeder Calf Prices at a Local Livestock Market, B. Halfman, J. Lehmkuhler and T. Cox, http://www.joe.org/joe/2009december/pdf/JOE_v47_6rb7.pdf

Strategic Use of Antibiotics in Stocker Cattle, J. Currin, 400-307 Virginia Cooperative Extension Service, <http://pubs.ext.vt.edu/400/400-307/400-307.html>.

Wisconsin Beef Quality Assurance Manual. Wisconsin Beef Council and UW Extension.

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