

Managing Incoming Stocker Calves

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One of the most important health events in the lives of weaned calves is their movement to a new home and their handling for the first 3 to 5 weeks thereafter. Exposure to germs and stress make disease more likely to occur. Disease in stocker cattle is most likely to be diagnosed during this time. Calves are like Kindergarten kids in that they have not been exposed to a number of important diseases until they co-mingled together after weaning. Therefore, programs that include vaccination before weaning better prepare weaned calves for the disease exposure they will face after being mixed with other groups. Handling programs for calves (especially those that have not been through a preweaning program) should be designed to reduce stress, decrease exposure to germs and increase the calf's immunity to those important disease-causing bacteria and viruses. Each stocker operation is unique and the best program for an operation should be designed by the owner and their veterinarian. That program will need to be changed periodically as calf source, exposure and stress levels change.

Low Stress Hauling

Calves should be hauled in a well ventilated carrier that has been properly cleaned since the last load. The space requirement for a typical stocker calf is eight square feet per calf. Adequate bedding in the carrier will make injury less likely.

Before the Calves Arrive

Before the calves arrive, their pen or pens should be cleaned and dry. Adequate sized shelter should be available since calves don't like to lie down in wet places and within a few hours become tired and stressed. The squeeze chute, feeders and waterers should be sanitized as germs can live in the environment for up to several weeks and could be passed from the previous groups of calves to the new ones.

Water and Feed on Arrival

The calves should be unloaded into a small pen so that they can be easily moved to working facilities. Water is the most important nutrient for incoming calves but they may not recognize the water source. Calves will drink more quickly if the water source is on the fence line and is turned on and left to run after the calves have been unloaded. This allows the calf to hear and find the water source more quickly resulting in less dehydration. Adding good quality grass hay to the feeders can be delayed for 6 to 8 hours to allow the calves time to drink and rest. Calves will begin to eat more quickly if the hay feeders are located on the fence line. Bunk space must be adequate (18 to 22 linear inches per calf) so that all calves to have the opportunity to eat as soon as possible. Calves that do not eat within 48 hours will tend to develop B vitamin deficiency and rumen problems making them more likely to be off feed even longer.

Processing Incoming Calves

Calves should be processed within 24 hours of arrival. This processing should be done early in the morning during periods of hot weather. While the calf may not build the best immunity to vaccines at this time, this initial vaccination begins the process of building immunity and prepares the calf to better respond to the booster vaccination given later. Calves should be vaccinated with a modified-live IBR, BVD, PI3, BRSV vaccine since this type of vaccine results in quicker immunity than with killed vaccines. As an alternative, the BRSV fraction of the vaccine can be killed without altering the effectiveness of the vaccine. All vaccines should be given under the skin if label directions allow. There are a number of brands of vaccine of this type and all can be expected to work well.

Not all calves can or will build strong immunity to the initial IBR, BVD, PI3 and BRSV vaccination. It is very important that this vaccination be repeated 10 to 14 days after the initial vaccination. A booster Mannheimia (Pasteurella) vaccination should be given whenever additional stress or exposure is likely. At this same time calves should be given Clostridial (Blackleg) vaccination, dewormed, castrated (if a bull calf), be dehorned or have their horns tipped, and implanted.

The calves should also be given an initial vaccination of Mannheimia (Pasteurella vaccine). This vaccine should contain leukotoxoid to be most effective.

Mass Medication

Mass medication (metaphylaxis) is the practice of giving all the calves an injection of certain antibiotics on arrival and has been shown to be a cost effective way to reduce sickness in “high risk calves”. High risk calves are defined as calves:

- That are not checked closely every day for the first 3 to 5 weeks after arrival
- Where the caregiver is not good at identifying early sickness

- Less than 500 pounds body weight on arrival
- That are sick on arrival
- That have come from several sources and passed through one or more sale barns.
- Where a lot of sickness has been seen in the first 5 days after arrival
- Hauled a long distance or delayed during shipping

Not all antibiotics are approved or suitable for mass medication. Products that have been approved by the FDA as being safe and effective for mass medication include tulathromycin (Draxxin®), ceftiofur (Excede®), tilmicosin (Micotil®), florfenicol (Nuflor®), and oxytetracycline (Tetradure®). While some stocker operators have used medicated feed or water for this purpose, feed and water medications are likely less effective than injected medications since many calves do not eat or drink well for a time after arrival. Additionally, feed and water medications may not be approved for this purpose by the FDA.

Symptoms of Pneumonia

Pneumonia (shipping fever or BRD) is the most likely health problem in stocker calves. It is not unusual for 30% of a group of calves to require treatment for pneumonia, and 2 % or more may die. Early treatment and proper dosing are the most important factors in successful pneumonia treatment. Calves should be checked for health in the early morning when they are rested. The first symptom of pneumonia in calves is lack of appetite and they may eat less for up to 48 hours before showing other symptoms. Calves that come up slowly to be fed or lack rumen fill should be watched closely. Calves with pneumonia also:

- Are less active, appear depressed, have their head and ears down and isolate themselves from herdmates
- Rise slowly and stand with an arched back
- Breathe faster
- Are stiff when walking
- Have a nasal discharge
- Have a body temperature of over 104°F in the early morning. A calf's temperature may go up an additional 1.5°F by the end of the day.

Treatment of Pneumonia

A number of antibiotics have been shown to be effective for the treatment of pneumonia. Pick an antibiotic based on laboratory results or your own experience since someone else, even nearby, may have an entirely different problem. Also, calves from a different source or background may require a different treatment. Be sure to read label directions and observe withdrawal times on all medications.

Postmortem Examination of Dead Calves

Having your veterinarian do an animal autopsy on at least some of the animals that die is a good way to get important information on the cause of death and the treatments that are most likely to

be successful. The State of Tennessee Department of Agriculture has an animal disease diagnostic lab which is in place to provide diagnosis of animal disease..

Summary

The time from arrival to one month or so after arrival is the most important time in the health management of stocker calves. Reducing stress, reducing exposure to germs, increasing the calf's immunity and providing early, effective treatment will result in less sickness, lower treatment costs, better rates of gain, better quality grades, and increased profit for you.