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### G93-1172 Starting Cattle

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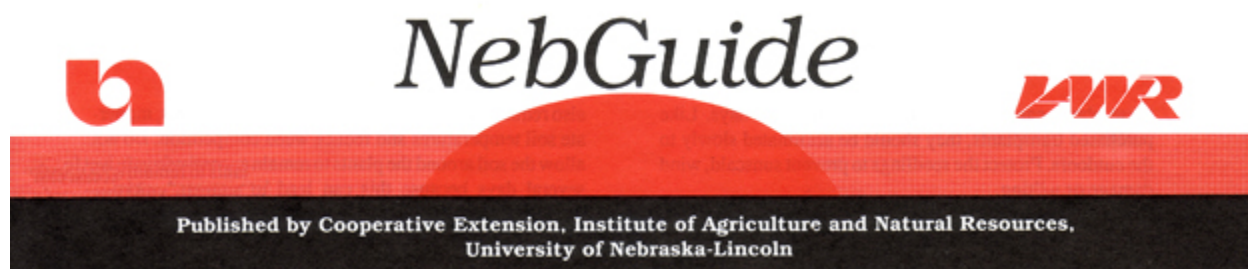
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## Starting Cattle

**This NebGuide gives guidelines to help feedlot operators prepare and establish a plan for starting new cattle on feed that minimizes stress, reduces morbidity (sickness) and improves performance.**

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- [Preparation](#)
- [Receiving](#)
- [Processing](#)
- [Feeding](#)
- [Finding and Treating Sick Cattle](#)
- [Summary](#)

An animal's first few weeks in a feedlot can influence performance throughout the entire feeding period. The cattle are adapting to a new environment and may be exposed to disease, some for the first time. It is vitally important to prevent and deal with health problems at this time to prevent loss of performance.

Cattle entering the feedlot encounter a range of problems that arise from several sources, including health and nutritional background, varying origins, transition stress into the feedlot, experience of the management and crew and season of the year.

Calves acquire immunity at birth but this is lost as the animal matures. Newly weaned cattle (five to seven months of age, 450-650 pounds) have lost this immunity and are most susceptible to common feedlot diseases. These animals usually enter feedlots in the fall, when temperature fluctuations and dust are especially troublesome. If the cattle have a poor nutritional background, have heavy parasite infestations, or have not been exposed to common feedlot diseases (either naturally or through vaccines) they are more likely to suffer severe disease problems during the first few weeks in the feedlot.

Flawless management and care of newly weaned cattle in the feedlot are the key to avoiding most problems.

### Preparation

Before you purchase cattle, you should develop a receiving and marketing plan. A coordinated plan will prevent one of the most important factors associated with health losses in feedlots--having too many cattle to care for at one time. Formulation of this plan should involve both your veterinarian and your nutritionist.

Properly designed and maintained facilities may be the second most important factor that influences proper care of newly weaned cattle. If the cattle cannot flow through the facilities with ease, analyze the situation and make changes. Avoid shadows, contrasting colors of paint, long or straight snakes, and small, dusty or poorly ventilated holding areas. You may need to make adjustments if more than one person is involved in moving the cattle from the holding area to the working chute.

Chutes should also be adjusted for the cattle. Chutes should apply no more pressure than is required to hold the average-sized animal. A good rule of thumb is to never exceed one pound of pressure (measured across the chute sides at an animal's elbow height) for each pound of body weight.

Pens should have mounds that extend forward to connect to the bunk pads and allow for drainage away from the bunk. Mound density should be greater than 110 pounds per cubic foot of earth. The mounds should provide at least 30 square feet per animal on the crest. Mounds should have a 30 percent slope on the sides and a 3 percent slope away from the bunk. If the conditions are dusty, a temporary cross fence that pushes the cattle toward the bunk and confines them to 75 square feet per animal will help control the dust. During muddy conditions giving the cattle 350 square feet will allow pens to dry faster.

Personnel can make a great deal of difference in the performance of cattle during the first 30 days in the feedlot. Personnel should be trained in proper handling, feeding and care of newly weaned calves. Your personnel must not only know how to do their jobs, but what kinds of problems to expect with each set of cattle you purchase. Your veterinarian and nutritionist can aid you in designing a training program to meet the needs of the people you employ.

A receiving and marketing program must also involve your feed supplement and medication supplies. Work with your veterinarian and nutritionist to ensure you have an adequate amount of high quality supplies available.

## **Receiving**

Inspection of cattle on arrival is often very haphazard. It is important to check all the papers that accompany each load, but it is equally important to establish a checklist of observations about the cattle that should be noted.

Inspect the following papers: the sale receipt (noting date and time of shipment), the health papers (especially looking for comments regarding vaccines or medications that may have been given), and ports of entry slips (noting time and location). It is also reasonable to inspect the trucker's log, examining the initials or signatures on all papers and knowing who these people are.

Weigh all cattle on arrival. If scales that can accommodate incoming cattle trucks or cattle are not available on your premises, work out an arrangement with a local business that has scales to weigh all trucks before and after the cattle are unloaded. Before you purchase the cattle, make sure you establish the time the cattle will leave the seller's location so that all incoming cattle can be weighed on arrival.

Establish a check list for inspection that includes a rating scale for each item. The check list should include a rating for temperament (tired, alert, active), outer condition (wet, dirty, clean), breed, frame

and finish description, lameness, swelling, and number and location of previous or existing back tags. Set a minimum standard for acceptance and be willing to refuse delivery.

Feed, water and environmental protection should be available to cattle when they are unloaded. The first feed offered should be excellent quality dry hay. Six to eight hours after arrival change the feed to a low-medium energy totally mixed feed such as one-third corn and two-thirds ground alfalfa hay. Within 24 hours the cattle can be placed on a medium energy feed such as a 50/50 mix of corn and alfalfa. Bunk management is an important key to minimizing problems with new cattle. Ask your nutritionist to help you develop a cost effective ration and a proper monitoring system for feed delivery.

The best location for waterers for all feedlot cattle is directly behind the bunk pad apron. Flow-through waterers are the best type to use for starting new cattle in a feedlot. Cup or tank waterers with a small opening should never be used for new cattle. Adjust the waterer so it makes noise as the water enters the trough by adjusting the water to spray into the air like a fountain.

Though non-medicated, non-chlorinated water is the standard for starting cattle, there is renewed interest in trying to prevent common health problems by medicating the drinking water. Recent studies have shown chlortetracycline added to the drinking water did not alter the water consumption in newly weaned feedlot cattle. It is also thought that medications delivered through drinking water bypass the rumen and will not upset the rumen bacteria.

Newly arrived cattle need protection from the environment. Cattle do not tolerate temperatures above 60° F very well. Heat stress is common much of the year in newly arrived cattle. North to south oriented solid shades built more than 10 feet high will provide heat protection and allow for drying and easy pen cleaning.

Windbreaks can cause more harm than benefit to feedlot cattle. It is more important to have the wind to cool the cattle in the summer than to have the windbreak to protect the cattle from the winter winds. Temporary windbreaks constructed from round bales or hay sticks will work much better in the winter and can easily be removed during warm weather to allow adequate air movement. Trees provide a breeding and protection area for the stable fly and should be avoided as feedlot windbreaks.

## **Processing**

The processing products you select must fit the needs of the cattle. Because there is a great deal of difference in vaccines, your veterinarian should be consulted on the selection of vaccines appropriate for your cattle. Typically, the vaccines selected for stressed, light weaned cattle will include a modified-live intramuscular IBR, PI3, BVD and BRSV, and a four- or seven-way subcutaneous clostridial. An intranasal modified live IBR vaccine should also be used in all newly weaned cattle. Killed viral vaccines are often selected for highly stressed cattle. If killed vaccines are selected, a booster dose is required in two to three weeks. A modified-live vaccine should be considered for the booster dose. Yearling cattle will not benefit from intranasal vaccines and may not benefit from BRSV vaccines.

A long-acting antibiotic administered at processing usually decreases the number of health problems incurred with newly weaned cattle. It is important to strictly follow the manufacturer's recommendations for the use of these products. If the expected sickness rate is less than 30 percent during the first three weeks in the feedlot, it may not be economical to use injectable antibiotics. In this situation it is more economical to use antibiotics in the feed. Yearling cattle seldom benefit from antibiotic injections at processing. Never inject neomycin, gentamicin, pen/strep or a homemade mixture of antibiotics in cattle.

A quality, new-generation dewormer should be administered to all incoming cattle. These include ivermectin, albendazole, oxfendazole and fenbendazole. All cattle should be treated for external parasites. However, many of the products available for treatment of external parasites are stressful to cattle and should not be used in highly stressed, newly weaned cattle. Visit with your veterinarian about the proper selection of dewormers and products to control external parasites.

Implanting cattle properly is very important. Growth promotant implants will improve the feed efficiency and change the quality of the carcass. However, implants have been associated with an increase in the rate of bullers. The person administering the implant must be properly trained and must have time to implant the cattle properly. Lost, misplaced, contaminated or crushed implants can result in a loss of as much as \$25 per head over the feeding period. At the least, lost, misplaced, contaminated or crushed implants will not affect performance, and at the most can cause abscessing and loss of carcass value from resulting bullers. Visit with your nutritionist about proper use and selection of implants.

Cattle entering a feedlot should be given an ear tag that identifies the animal as a member of a group of animals received and processed at the same time. Without identification, analysis of performance and proper precautions for medication withdrawals cannot be accomplished.

Products such as injectable vitamins and probiotics have very little qualified research to support routine use in feedlot receiving programs. In highly stressed newly weaned cattle, probiotics may be of value. It is best to administer all vitamins in the feed. Ask your nutritionist and veterinarian to jointly develop a program for the use of these products.

Processing procedures such as abortion and castration should be postponed until the initial receiving illnesses have subsided. Dehorning is very stressful and should be avoided in all feedlot cattle. Some procedures, such as clostridial vaccination, may be postponed for two to three weeks.

It is best to use disposable syringes and needles. Care must be taken to ensure that detergents and disinfectants are thoroughly rinsed from syringes after cleaning, especially syringes used for modified live vaccines. Detergents and disinfectants will kill modified live vaccines and may cause tissue irritation.

Always use the smallest needle possible. Most vaccines can be given with an 18 gauge, 1 to 1 1/2 inch needle. Never use the same needle on more than 10 animals. Be alert for damage to or contamination of the needle and change the needle immediately.

Most new cattle need 12 to 72 hours rest after receiving. It is best to schedule all processing early in the morning and plan to finish before 11 a.m. It is a serious mistake to process highly stressed cattle after mid-morning. Handle all cattle carefully and slowly. Working cattle faster than your facilities and crew can accommodate only leads to more health problems. Electric prods should be used sparingly. If cattle do not move through your facilities easily, have a qualified professional analyze the problem. Frequently minor changes in your facilities can improve cattle movement and decrease stress to both cattle and crew.

## **Feeding**

The feeding program for newly received cattle is just as important as the processing program. Adapting cattle to a drylot ration without inducing gut irritation and acidosis is a major factor in preventing disease in starting feedlot cattle. Your nutritionist will typically start the cattle on a moderate energy, total mixed, dry ration offered in two to three split feedings during the first five to seven days after

processing.

It is very important to know the dry matter intake on a daily basis. Fluctuations in intake can lead to subclinical acidosis. Subclinical acidosis is commonly misdiagnosed as respiratory disease. Keeping a daily log of feed consumption will not only help avoid overfeeding, but will allow you to spot outbreaks of respiratory disease early. Feed consumption will typically drop approximately 25 percent 24 hours before there is a significant rise in the body temperature of a group of feedlot cattle. Visit with your nutritionist about monitoring feed moisture and consumption.

Medications are often used in starting feeds in an attempt to lessen the impact of respiratory and parasitic diseases. However, some of these products may influence the selection of medications used on individually treated animals. Visit with your veterinarian about medication interactions and the selection of products to meet the needs of different groups of cattle.

## **Finding and Treating Sick Cattle**

Early detection of sickness and early treatment are paramount to a successful treatment program. The most important factor that will influence your ability to find sick cattle is the amount of time you have to devote to finding sick cattle before mid-morning. The three keys to identifying the typical sick feedlot animal are depression, abnormal gut fill and changes in respiratory rate. However, these keys become difficult to assess in the afternoon.

Set up a system scoring the severity of the illness. The system should include a rating scale for depression and gut fill. Scoring should be done before you take the animal's temperature. Treatments must follow the manufacturer's recommendations unless approved and monitored by your veterinarian. Visit with your veterinarian about setting up a treatment program and establishing cutoff temperatures for individual animal treatment.

It is very important to identify and establish an individual record for each animal treated. These records will allow you to accurately evaluate your treatment program, establish appropriate withdrawal times and help you make decisions on future treatments should an animal relapse.

Avoid giving medications in the hind leg muscles. Use subcutaneous or intravenous injections if approved by the manufacturer, or use the muscles of the neck for intramuscular injections. Never inject an animal with neomycin or gentamicin.

It is important to protect sick animals from adverse environmental conditions such as mud, dust and extreme heat or cold. Give sick cattle 18 to 24 inches of bunk space and avoid feeding hay in a feeder other than the bunk. Avoid the use of fermented feeds for sick cattle. Visit with your veterinarian and nutritionist about designing an appropriate feeding program for your sick cattle and for returning recovered cattle to their home pen.

## **Summary**

Be prepared to receive new cattle. Have your facilities properly designed and in good repair. Have your supplies and feeds ready before the cattle arrive. Make sure everyone who will be working with the new cattle is trained and has time to carry out their responsibilities.

Work with your veterinarian and nutritionist to establish an appropriate processing, treatment and feeding program. Establish a working set of records and review these records and the performance of

your health and feeding programs with your veterinarian and nutritionist on a regular basis.

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