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### G88-878 Management for Disease Prevention in Feedlots

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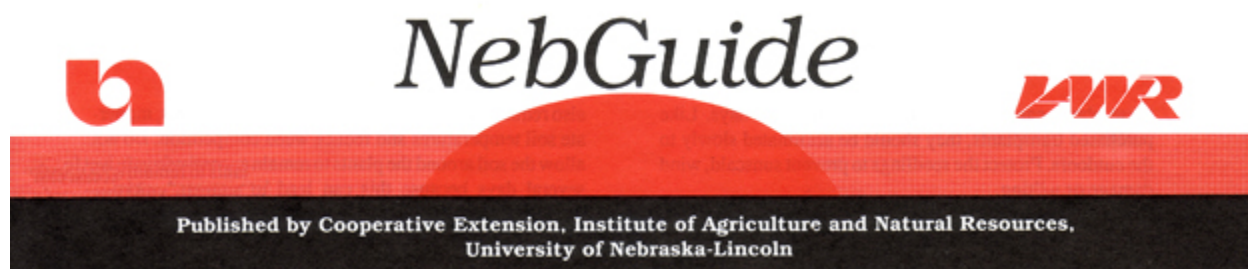


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# Management for Disease Prevention in Feedlots

When cattle are put in feedlots, they change diets and environments. This NebGuide discusses ways to minimize possible losses caused by those changes.

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Cattle are a vital link in the human food chain in the United States. The utilized agricultural area in this country is about 1.06 million acres, of which 64 percent is range (government and private). Grazing is the only practical method of harvesting these valuable resources. Ruminants convert forage produced by the soil nutrients, water and solar energy to a high quality protein source for humans.



The feedlot phase of cattle feeding follows the utilization of roughages that provide for the animal's growth and development stages. When cattle are put in the feedlot, they are required to change from range conditions to confinement, from roughage to concentrated diets and from limited disease exposure to great exposure to disease. Allowing the animal time to adapt to these conditions helps maximize efficiency.

Growth characteristics of cattle and the economics of feeding have caused younger cattle to be placed in feedlots, creating the need for management practices that complement these changes.

Any condition that causes a lack of optimum gain, whether due to disease or management factors, contributes to higher costs of production. A good feedlot health program designed for a specific management style can be cost effective in improving production and minimizing losses during the feeding period.

Cattle feeders should establish goals and objectives for their feedlot. To help achieve these goals, five areas will be discussed relative to feedlot health. The areas are: 1) receiving procedures; 2) pen checking; 3) treatment schedules; 4) hospital pen management; 5) records.

## **Receiving Procedures**

Receiving procedures should fit the needs and objectives of each operation. The source of cattle should be considered. It is very important to know whether the cattle have been on the truck 30 minutes directly from a pasture nearby, or if they have been through four or five different sale barns and trucked for 72 hours.

Cattle should be purchased from a reputable source and identified to that source. This may have a bearing on choices of processing procedures.

The animals should be inspected off the truck. If they are long-haul cattle and sick upon arrival, they should not be accepted and should be sent back to the order buyer. Cattle purchased from multiple sources can have more health problems than animals purchased from a single source.

Healthy, minimally stressed cattle are very important in reducing shrink and loss due to diseases in the feedlot. Once cattle are in the feedlot, they will have a high degree of exposure to viruses and bacteria that are present in other cattle and the feedlot environment.

The time to process depends upon the condition the cattle are in upon arrival. As a general rule, the sooner they are processed following arrival, the better the results will be. Allowing cattle to stay in the feedlot several days prior to processing can contribute to disaster.

Processing procedures vary for the type of cattle to be fed. The vaccination program, dipping or pour-ons, growth implants, de-worming, pregnant heifer problems, horn tipping, tail bobbing, castration and ear tagging all should be planned in advance. If the general condition of the cattle is good, early processing is indicated.

After processing, get them into the pen, provide easy access to water and acceptable feed, and observe them closely for the first 14 to 21 days.

Closely monitor total diet intake, general appearance of the animals and specific individual conditions. Monitor the consistency of the feces. Loose, watery stools may indicate a ration adjustment is necessary.

Generally, cattle being started on feed should be allowed at least 150-200 square feet of pen space and one to two feet of bunk space per head.

## **Pen Checking**

The pen rider must be able to identify sick animals early in the disease process and gently remove them from the pen for treatment.

The use of a horse in checking pens elevates the rider, allowing him or her to observe the entire pen of cattle rather than those in only the immediate vicinity. A horse also allows the pen rider to move around the pen easily when it is rough, full of manure, mud, etc. In most cases, the use of a horse can be a tremendous advantage in separating sick animals from others in the pen.

Detecting animals in the early stages of disease is an art. Some people develop the ability quickly, while others never do.

As a general rule, the earlier a sick animal is treated, the better the animal responds to treatment. Obvious signs of disease are usually not difficult to detect, but by the time these signs develop, the animal frequently has been sick for 24 hours or longer.

An animal with early signs of disease shows altered behavior, such as standing off from the herd with its head in a corner, staying in one area of the pen, standing at the bunk but not eating, having its head slightly lowered, coughing occasionally, showing reluctance to turn its head but following the pen rider with its eyes; or the animal may be slightly more gaunt than pen mates.

Detection of the early signs of sickness requires a great deal of knowledge, patience, persistence and genuine concern.

A good pen rider should get to know cattle just as a school teacher knows students. A proficient, experienced pen rider who is in the pen every day has a much greater success rate for early pulls than does the inexperienced individual. Early pulls is the key to success.

Upon approaching the pen, look at all the cattle; see the forest, not just the trees. Look at the feed bunk; you should be able to recognize what ration the cattle are on and if all feed in bunks has been consumed. The length of time the cattle have been on feed is important.

Initially, new cattle may not be accustomed to the environment, which may include a horse and rider, so easy, quiet movements are necessary. New animals need to be checked, two to three times a day, as compared to animals that already have adjusted to the new environment. Many early clues will be lost once the rider enters the pen and the animals become aware of his or her presence.

After entering the pen, ride in a course that allows you to look at all cattle as naturally as possible. Each individual animal must be observed.

Constant training and discipline are required if you are to become a good pen rider. When dead animals are found in the pen, usually someone missed signs of illness the previous days.

Dead animals found in the pen should be evaluated very critically. A postmortem exam by a veterinarian should be done on these animals as soon as possible to determine cause of death.

One way to tell how you're doing as a pen rider: if a sick animal's temperature declines following the first treatment, and there are not many chronics and no deads found in the pen, you are doing a good job of pulling cattle early. Less efficient or inexperienced pen riders will find the length of time needed for the animal's temperature to decline will increase, as will the number of chronics. The number of second pulls will also increase.

## **Treatment Schedules**

A tentative diagnosis is required and a treatment protocol for each situation is necessary. These can be established with the help of your veterinarian. If the animals do not respond to treatment, or non-routine conditions occur, the veterinarian should be called immediately.

Treatment crews must develop a good relationship with their veterinarians. The overall investment in a

health program versus feed costs will show the health costs to be minimal compared to feed cost. However, without an adequate health program, profitability of the entire operation can be at risk.

Treatment and processing costs are an important part of the close-out sheet. Frequently there is a tendency to overspend on processing, so periodically the processing and treatment schedules should be re-evaluated to make sure procedures are cost effective.

## **Hospital Pen Management**

When animals are pulled for treatment, they need to be identified to the pen from which they were pulled. Hospital pens should be clean, dry and have some form of shelter. The sick animals should be fed a ration they will readily consume, and have access to clean, fresh water.

Close proximity of fresh feed and water is especially important in hospital pens. Management to reduce stress from competition and crowding is necessary. Bunk space of two feet per head and pen space of 200 feet per head are suggested for cattle in the sick pen.

Once the animal has been pulled and treatment administered, it should be put in a hospital pen where it can be observed several times a day, and be readily accessible for treatment.

Hospital pen arrangements separating acutely ill and chronically sick cattle are helpful in evaluating progress of animals being treated. The treatment regime worked out with your veterinarian will be the procedure to follow in treating the animal. An animal's temperature may vary due to level of activity, color of the animal and time of day.

For respiratory infections, body temperature is perhaps the best measure of response to treatment. Many of the changes in treatments are triggered by the animal's temperature response, or lack of response. Animals that respond to treatment should be observed for 24 hours after the temperature is normal. If they are eating again, return the animals to their respective pens. The ear tag used to identify the animal when it was pulled for treatment will identify it as an animal that has been treated previously.

If at all possible, the pen rider should be involved as part of the treatment crew. In many cases, the rider will have a good idea of what is wrong with the animal by the time it is out of the pen. If animals have a high temperature due to bacterial infection, *early* antibiotic treatment is usually effective.

Maintenance of an adequate drug inventory is important. Procedures, treatment technique and drug handling need to be reviewed periodically. Your veterinarian is qualified and can assist in these areas.

## **Records**

Each pen of cattle should have a record showing all activity occurring in that pen, including sources, date of arrival at the lot, number, sex, order buyer, season, types and processing procedures performed at the feedlot. The products used, the sources of products, brand names and serial number of vaccines, implants, de-wormers and grub treatments should be recorded.

If dipping is done, the product in the vat should be identified, with the "vat side test" results and the date that the vat was charged. Records also should include any treatments prior to arriving at your lot.

Individual treatments should be recorded. A system of flagging should be used so that *no animals are sold* until an adequate withdrawal time for the product administered has been observed. Sick animals

should be handled with care in small groups to minimize handling time and other stressors associated with treatment.

It is a matter of preference as to how daily treatments are recorded. Recording date, body temperature, treatments, dosages and diagnosis are suggested. Weighing and recording body weight may be helpful in evaluating individual and group response to treatment programs. As the animals are pulled from their pens for treatment, they should be identified with a hospital ear tag. An individual treatment card for each animal is preferred. This can then be referenced back to the ear tag number and pen number, and becomes part of the record on that animal.

Keep a record of the diagnosis, dates the animal was treated, what it was treated with and its response to the treatment. The hospital tag should remain in the ear when the animal is returned to the pen. This serves as a flag to the pen rider to recheck that animal during the following days.

A morbidity and mortality record should be filled out each day. Ideally, all animals that die should have a post-mortem examination performed by a veterinarian in practice or at a diagnostic laboratory. This aids in monitoring the disease trends that occur in that feedlot. It provides information for the owner and veterinarian to make decisions concerning treatments, receiving programs, and adaptation periods.

Records and product invoices should become a permanent part of the pen record and should be maintained for 60 days following sale of the animals.

### **Summary**

The receiving procedures, ability to recognize sick cattle, records, treatment procedures and hospital pen management are critical parts of a management program for disease prevention. The costs encountered in disease prevention and treatment should be monitored closely. Percent of purchased animals marketed and costs of production are vital parts of a close-out sheet.

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