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## G84-716 Management of the Weanling Calf

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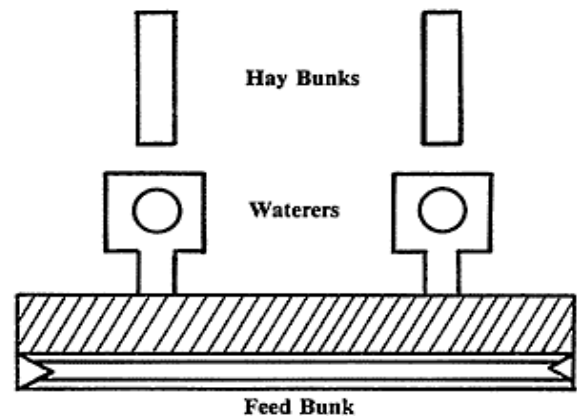
## Management of the Weanling Calf

This NebGuide outlines a program for preventing sickness and death losses in newly weaned calves, including stress prevention, vaccinations, nutrition, and treatment of sick calves.

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Sickness and death loss following weaning robs both calf producers and cattle feeders of potential profits. The weanling calf has not acquired adequate immunity to the variety of diseases that plague the beef industry. At weaning and/or shipping, the calf is usually subjected to various stresses, in addition to being separated from its mother, that contribute to disease outbreaks. A program for minimizing weight loss, sickness, and death in newly weaned calves should include: 1) minimizing stress, 2) adequate nutrition, 3) immunization against common disease, 4) parasite control, and 5) treatment of sick cattle.



**Figure 1. Weaning lot design.**

### Minimizing Stress

To help reduce stress at weaning, provide working corrals, chutes, alleys and sick pens that permit easy sorting and handling during the weaning period. Quiet and quick handling not only reduces the time required, but also reduces stress. Locate sick pens close to the weaning pens, and include a small shed to provide a dry, draft-free place for sick cattle to rest.

Design weaning pens to encourage intake of both feed and water to minimize nutritional stress, and for

ease of checking and sorting sick cattle (*Figure 1*). These pens should be well drained and dry, but not dusty. Small pastures can be used for weaning, but sorting sick cattle is difficult and creates stress for both the sick and healthy cattle. Weaning pens need ample bunk space and large capacity waterers that are easily accessible. Some method of discouraging "fence running" or "milling," which is characteristic of weaning calves, is also needed. Running water helps to attract calves to a water supply that is new to them.

Provide fresh palatable feed to shorten the time that the calves are in a negative energy balance. Have high quality long hay available when the calves go to the weaning pen. When calves are off feed and water for several hours during the weaning operation, feeding hay but withholding water for the first 2 to 4 hours in the weaning pen may result in greater feed consumption and less nutrition stress.

Vaccinating calves 2 to 4 weeks prior to weaning reduces the stress of weaning and gives them time to develop immunity to some diseases prior to weaning.

### **Feeding the Newly Weaned Calf**

The immediate need of the feeding program is to get some feed into the calf as soon as possible to end his negative energy balance. Good quality grass hay or medium quality alfalfa are palatable feeds that cattle usually eat readily and should be available for the first week or until all calves have filled. If the alfalfa is of too high a quality, bloat and looseness may be a problem.

After the second day, begin adding a palatable, well-fortified supplement containing vitamin A and potassium if grass hay or corn or sorghum silage is the forage to be fed. If alfalfa is the main forage, adding grain to increase the energy of the ration to the desired level may be all that is necessary. For calves weaned at 6 to 8 months of age, the protein content of the ration should reach about 13% by 1 week after weaning. The mineral content should be about .35% calcium, .3% phosphorus and 1.5% potassium. A high level of vitamin A (50,000 IU/day) is desirable the first few days after weaning. After all of the calves are eating, 10-15,000 IU daily should be an adequate amount of vitamin A.

Soybean oil meal is a palatable natural protein and makes a good carrier for other nutrients. Urea is very unpalatable and should not be included in the supplement for some time after weaning. If long hay is fed in the feed bunks, the supplement can be fed on top of the loose hay.

If you plan to sell calves 30 to 60 days following weaning, substantial gains may be one of your goals. If so, grains or commercial starter feeds can be added beginning the third or fourth day after weaning. High energy diets generally do not reduce respiratory disease incidence and, if not carefully managed, can cause digestive disturbances adding to the total disease problem. If grain is fed, ground oats is very palatable to calves and a good starter feed for the first few days. Antibiotics appear to increase early postweaning gain and may be helpful also in reducing disease problems.

If gains of 1.5 lb. daily or more are desired, we suggest feeding a 50 to 75% concentrate (dry basis) complete mixed diet.

Delay feeding silage until most of the calves are eating well. Calves usually start eating drier silages rather quickly, but are often slow in adapting to wetter silage (69% moisture and up).

### **Disease Prevention**

A good health program is designed to prevent major disease problems. Plan a disease prevention and

control program with your veterinarian several weeks prior to weaning or purchasing calves.

Your disease prevention program should begin with some vaccinations given 2 to 4 weeks before weaning. If not then, the calves should be vaccinated on the day of weaning. The vaccinations can be given prior to shipment, or immediately after arrival when shipped moderate distances. Where possible, do not mix calves from different sources together until after the vaccinations have had time to produce immunity (2 to 3 weeks).

The vaccination program should include a minimum number of vaccinations to protect against the prevalent diseases on your farm or ranch and in your area. Follow good vaccination procedures, including proper refrigeration and handling of vaccine, and using clean, sterile syringes and needles.

Most calves should be vaccinated for "blackleg"-like diseases using either the 4-way or 7-way vaccine, bovine rhinotracheitis (IBR) and leptospirosis at their first vaccination. Other vaccinations including hemophilus somnus, syncytial virus (RSV) and bovine virus diarrhea (BVD) may be given if you have had problems with these diseases.

If hemophilus and 7-way blackleg vaccines are used, they should be followed about 3 weeks later with a hemophilus booster and a clostridium C & D booster.

Other management practices to consider for the weanling calf include a vitamin A injection if the calves come from extremely dry areas, and louse, worm, and grub control. If your cattle are started on feed quickly, feeding vitamin A is preferred, giving injections of vitamin A only to cattle that are sick the first week or so in the lot. Feeding vitamin A is less expensive and avoids one injection. Louse, worm and grub control should be done at preweaning or at weaning. Grub or louse treatment given preweaning may aid in late summer fly control.

### **Handling Sick Cattle**

Early detection and treatment of sick calves is a key to having a low death loss and a small percentage of chronic poor-doing calves. Calves in the early stages of incubation of an illness have a far better chance to respond favorably to proper treatment. Check calves closely for early symptoms of illness 3 to 6 times daily for the first 2 weeks. Pen checking requires patience, concern, close observation and an awareness of the unusual. Animals that do not compete at the feed bunk are candidates for individual attention. One good time to check calves is just following feeding.

Signs of sickness or needed attention include:

1. A gaunt, dehydrated appearance or rough hair coat.
2. Drooping of one or both ears.
3. Dull or sunken eyes.
4. A drooping head or carrying the head in an abnormal position.
5. A reluctance to move or rise.
6. A stiff gait.
7. Discharge from the eyes or nose.
8. Failure to go to the feed bunk at feeding time.
9. A dry muzzle, harsh cough or rapid, labored breathing.
10. Isolation from the rest of the calves.

Pull and check cattle with any of the above signs for temperature. Any animal with a temperature of

104°F needs immediate treatment. Cattle with slightly lower temperatures may not need treatment, but may benefit from a stay in the recovery pen where there is close proximity to feed and water and less competition from other cattle.

## **Treating Sick Cattle**

Developing a well-defined treatment program with your veterinarian is advisable. Your veterinarian needs to observe sick cattle, use various diagnostic tests and perform post mortem examinations on dead cattle. An accurate diagnosis is necessary in order to modify the treatment program for maximum effectiveness.

Bovine respiratory disease complex is the most common disease problem in newly weaned calves. The treatment program for this complex disease should continue for at least 3 or 4 days. This will help prevent retreatments and "chronics". Therapeutic agents most commonly included in a treatment program are antibiotic and sulfa boluses. Some veterinarians routinely recommend injection of vitamin B complex for sick cattle since their rumen function is very limited during the sick period.

Keep a record of the health problem and treatment for each animal taken to the sick pen. A numbered hospital tag in the ear of each treated animal allows you to follow its health history. The health record should include diagnosis, daily temperature record, dates treated, kind and amount of medications used, and the date it is returned to the original pen or, in the case of chronics, the date sent to the recovery pen.

If an outbreak is indicated by 3 to 7 percent of the calves being pulled on any given day, adding 1.5 gm of a broad spectrum antibiotic per head per day to the feed for 7 to 10 days may help control the outbreak. In more severe cases, mass injection of every calf not already treated may be advisable.

Because sick cattle eat a limited amount of feed, extra effort is needed to get reasonable feed consumption in the sick pen. The feed bunk should be protected from the weather, and fresh feed made available each day. Provide both a well-fortified, fairly high concentrate ration and a good quality alfalfa hay to help in their recovery.

## **Nebraska Certified Preconditioning (Green Tag) Program**

Nebraska has joined a growing list of states that have a certified program designed to minimize stress and sickness in calves shipped during the fall months. If you sell or buy calves at this time, it would be well to consider certified "green tag" calves.

For certification, specific vaccinations and grub treatment are required at least 21 days before sale, and the calves must be weaned and bunk broke 30 days before sale. Calves must also be dehorned and bull calves castrated. Although these requirements are essentially as outlined in this publication, they must be certified by both the owner and the veterinarian, and the tags applied under the veterinarian's supervision.

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