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New Calves for Your Feedlot

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When purchasing feedlot cattle, start with calves that have performance potential. Performance potential can best be checked by past performance records of feeder calves sold from the same unit. Performance records of the sire and dam are excellent indicators of the calves' future. Both rate of gain and quality are highly heritable factors. Calves that gain well are also less likely to become infected with common feedlot diseases.

Be sure all calves are castrated and dehorned. If this is done well in advance of placement in the feedlot, it will avoid the decreased gains caused by the stress of such operations.

Vaccination for blackleg, malignant edema and enterotoxemia is a must for feeder calves. Calves that have been vaccinated will have protection and can avoid the stress of handling in the feedlot.

Grub control programs will give the calves the needed protection against grubs, lice and possibly some internal parasites. Calves that have been correctly treated for grubs will make faster gains, be more desirable to the packer and will not have to undergo the stress of medication for grubs while in the feedlot.

Vaccination for common feedlot diseases other than blackleg or malignant edema are desirable in some areas and by some feeders. These include enterotoxemia, both C and D toxoids, leptospirosis, IBR and shipping fever. All vaccines cause varying degrees of stress. Avoid administering more than three simultaneously. Ideally these vaccines should be administered at least three weeks before weaning.

Calves that have been vaccinated and weaned and are placed in a feedlot environment before removal from the ranch become acclimated to the feedlot environment. They will be less subject to the stresses of moving and confinement. Calves that have been acclimated to the feedlot environment will recognize the feed bunk, starter rations and water fountains. These calves will begin eating sooner, gain more rapidly, and are subject to less anxiety than calves taken directly off the cow.

PREPARING THE FEEDLOT FOR NEW CALVES

Repair fences and equipment. This helps to avoid injuries and delays in handling and care of calves. Clean and disinfect all pens and feed bunks. Whitewashing walls and fences helps control ringworm, warts and other skin diseases.

Provide a well arranged hospital pen and restraining equipment to isolate and treat sick calves. Sick calves do better when not excited during medication. Keeping sick calves from the rest of the group helps prevent disease spread and medication can be given without exciting the entire group.

A pasture next to the feedlot can help acquaint calves with their new environment gradually. Pasture also provides a place for exercise, helps eliminate dust inhalation and provides grazing conditions similar to the range.

For calves not acclimated to the feedlot, provide additional water sources. Use tanks or tubs if necessary. Too little water will bring on disease problems and create difficulty in getting the calves on feed. The addition of .5 to 1 percent of salt, electrolytes or molasses to the water may help increase water consumption to avoid dehydration.

Provide a back rubber with an approved medication to help control lice and other skin parasites.

Adjust feed bunks so that young calves can eat starter rations without difficulty. Feed bunks that are too high may cause damage to the trachea from pressure during eating. Such damage can lead to respiratory problems. Staggered arrangement of feed bunks will reduce fence walking and dust inhalation.

MOVING THE CALVES TO THE FEEDLOT

Move calves to the feedlot as directly as possible. If you ship by truck, hire a trucker who has a good reputation and sufficient insurance. The truck should be equipped for warm and cold weather. Avoid tractor exhaust. It is extremely irritating to the lungs.

If possible, move cattle in the cool of the evening when the weather is warm.

WHEN THE CALVES ARRIVE

Have cleaned and disinfected pens with fresh bedding awaiting the new calves.

Keep the calves calm and quiet during unloading by using sturdy chutes and gates. See or buy a "Beef Equipment Plans Book" at your County Agent's office.

Separate new calves from others if possible. Keep calves separated by size and age.

Handle new calves in the feedlot with care and consideration. Remember that "green calves" are homesick, hungry and away from their mothers for the first time. Work quietly with calves to gain their confidence.

Complete starting feeds for green calves in the feedlot are available from most feed supply stores. Commercial weaning feeds, also called "stress feeds," have certain advantages, as calves eat them readily, they can be self fed from the start, and they contain a favorable balance of roughage to concentrates with the essential energy, protein, vitamins and minerals included. Commercial weaning feeds for feeder calves should be fed from one to three weeks depending on the manufacturer's recommendations and the individual feeder's situation. Shift gradually to regular feedlot rations to give the digestive system time to adjust to the change in feeds.

To start green calves on home grown feeds, use a roughage similar to that which they have consumed previously. Grass hay is usually best. Mixed hay or silage may be fed. After the calves are eating roughage, start grain feeding at the rate of about 2 pounds per head daily. Whole oats are good for starting calves on feed. Corn and cob meal works well. If barley is fed, dilute rolled barley with oats to make it bulkier. Increase grain to the rate of 1 pound per 100 pounds of live weight. This means 4 pounds of grain to a 400-pound calf. Calves on a high grain ration will eat 1.5 to 2 pounds of grain per 100 pounds of live weight when they are on full feed. Protein, mineral and vitamin supplements are formulated for the kind of grain fed, and are usually included at the rate of 1 pound per head per day. Make feed changes gradually to avoid digestive disturbance.

Do not drench, dehorn, castrate, brand or vaccinate cattle for the first week or two after arrival. Vaccination breaks occur in calves vaccinated too soon after arrival when they are tired, thirsty and deprived of the protein necessary to respond to the vaccine and produce immunity. After the cattle have become acquainted with the feedlot conditions, vaccinate and perform other required veterinary service.

If the calves have not been vaccinated for blackleg or malignant edema or if there is doubt of their vaccination for these diseases, vaccinate for both. Take this opportunity to vaccinate for enterotoxemia and other feedlot problems common under today's management. Always keep accurate records of the number and identification of animals vaccinated. Serial numbers and expiration dates of the vaccines can be used for future reference in case of disease outbreaks.

Some feeders have all heifers checked for pregnancy and chemically aborted if pregnant, but don't abort any animal that is pregnant for longer than six months. Consult your veterinarian to determine the pregnancy stages and the usefulness of chemical abortion.

COMMON FEEDLOT DISEASES

Respiratory Diseases

Shipping Fever

Signs of shipping fever usually appear seven to 14 days after the calves are placed in the feedlot.

The early symptoms are nasal discharge, loss of appetite and elevated temperature. This is followed by increased rate of respiration, coughing and general depression. Stiffened gait and sometimes diarrhea may be observed. Death often results unless medication starts when the first symptoms are detected.

Various preventive measures have been advocated. Not all shipping fever vaccines have demonstrated benefits in the prevention of respiratory symptoms. The administration of hemorrhagic septicemia bacterin, antibiotics in the water or feed, sulfonamides in the feed and water, and vitamin A given intramuscularly or in the feed and water have all been suggested. None of these are of much value when used as the only means of prevention, and definitely cannot replace common sense feedlot management. Tranquilizers and/or long-acting penicillins are of value if given when the cattle are moved or when they are unloaded at the feedlot.

Preventive medication without management to prevent disease will not control respiratory or other diseases of the feedlot.

Several other diseases may at first appear very similar to shipping fever. These are considered part of shipping fever syndrome (SFD) and include mucosal disease, IBR and diphtheria. The only means of making a specific diagnosis is through laboratory examination of specimens from involved animals.

Infectious Bovine Rhinotracheitis (IBR)

IBR has been described under the term "rednose of cattle". It has been a major problem in feedlots of Western states. Midwestern cattle feeders have also observed it. The prominent symptoms are respiratory distress with open mouth breathing, dry harsh cough and acute tracheitis.

Fifteen to 100 percent of the animals in the feedlot may become visibly sick, though usually not more than 3 percent of the animals will die. Dehydration and weight loss are extensive. The onset of this disease usually occurs between 30 to 60 days after the animals have been in the feedlot.

Symptoms of IBR may be seen in animals fed organic iodine at levels higher than recommended to prevent foot rot or lumpy jaw.

If the IBR vaccine is used, administer it either three weeks before weaning or after the calves have been acclimated to the feedlot environment. As in any vaccination program, do not expect 100 percent protection, because some vaccinated calves may still exhibit the signs of IBR and the agent may be isolated from them. Caution should be exercised when using the IBR vaccines. Avoid having vaccinated calves in contact with pregnant cattle as abortion may occur through transfer from vaccinated calves to pregnant calves.

Mucosal Disease (BVD)

The first symptoms of BVD are extensive nasal secretion, watery eyes, crusty nostrils, loss of appetite, elevated temperature and profuse diarrhea. A rapid and extensive weight loss and general depression is often observed. This disease more commonly occurs in cattle 9 to 18 months old and during the colder months of the year. However, it may appear in cattle of all ages and at any time of the year. Ulcerations of the mouth and tongue are usually present. Death often results.

Commercial vaccines are available, but use them with caution. The stress of vaccination may initiate digestive and respiratory problems. If a BVD vaccine is used, give it at least three weeks before weaning or upon veterinary recommendation following examination of the feeder animals. Maximum stress upon animals may be encountered if the BVD vaccine is administered simultaneously with other vaccines such as IBR, P1-3 and Pasteurella.

Pulmonary Emphysema

Pulmonary emphysema is a respiratory condition observed frequently in the feedlot. Characteristic symptoms include difficult breathing, panting and coughing. Breathing may become so difficult that death results.

Many causes have been suggested, the most frequent being an allergic condition resembling asthma in humans. No prevention or cure is known for this condition. Reducing high concentrate feeds, avoiding feed dusts and, if possible, putting the cattle on a pasture for a short time may help.

Digestive Diseases

Enterotoxemia (Overeating Disease)

Enterotoxemia is usually a problem of cattle or sheep on high concentrate rations. It usually affects the largest, most vigorous animals as they can more readily obtain and hold a place at the feed trough.

Mild infections may include listlessness, colicky signs, possibly bloody diarrhea, bloat and prostration. The animal may be dead one to 24 hours following the first signs.

Vaccines are available for both sheep and cattle. Enterotoxemia can be prevented by vaccinating the calves at least two weeks in advance of placing

on a full ration of concentrates. Use both C and D toxoids in both cattle and sheep. Outbreaks are best controlled by eliminating the concentrates, increasing roughage consumption and vaccinating. Concentrate feeding should be reinstated gradually, obtaining maximum consumption not sooner than 10-14 days following vaccination.

Bloat

Bloat may appear in two forms, either acute or chronic. If the condition is chronic, it may be caused by irritation and closing of the esophagus following diphtheria, infectious rhinotracheitis or other forms of inflammation or injury to the esophagus such as may incur from improper use and administration of medication. The acute form of bloat occurs under varied conditions. Rapid change of feeding procedures, green legume forage, and lack of salt or water all have caused bloat. When chopped hay is being used, increasing the length of the chop will often aid in preventing bloat.

No one form of medication will always prevent bloat. Some of the aids to bloat prevention include roughage, 3 percent salt in the ration, adding animal or vegetable fats to the ration, addition of poloxalene to the ration, adding sodium bicarbonate (baking soda) to the water, or adding antibiotics to the ration. Moving the calves periodically, particularly during the night, will be helpful.

Rumenitis - Liver Abscess Complex

Losses have been extensive from this disease complex because cattle with advanced conditions will not gain economically. Also, many infected livers must be condemned at slaughter. The first signs of this condition usually are observed at slaughter. Organisms causing the condition are found in the soil and manure. Cattle on rations with a ratio of concentrate to roughage of 3 to 1 or greater appear to be more susceptible to this condition. A rapid change to high concentrate from roughage may also cause liver abscesses. Recent studies have indicated that moldy feeds may contribute to this problem.

The feeding of low concentrations of wide-spectrum antibiotics may help prevent liver abscesses.

Lumpy Jaw (Wooden Tongue)

This condition usually is observed as a movable swelling under the jawbone or along the lower neck region. This condition is not the true lumpy jaw, which is an infection of the jawbone and an immovable swelling. The organism causing the movable swelling always is present in the mouth of the calf and also is found in forage such as hay and straw. Injury to the lining of the mouth provides an opening for this infection, so an animal cannot eat or is systemically sick. Avoid coarse or sharp roughage that may injure the mouth lining. Treatment consists of drainage and/or local medication.

Isolation and medication should begin immediately upon discovery of the first case to avoid spread of this condition through the entire feedlot. No vaccine is available for lumpy jaw.

The organism causing lumpy jaw is infectious to humans and may cause a serious condition. When handling cattle that have lumpy jaw always wash your hands afterward and before you eat. The organism lives on hay and straw, so do not put either of these in your mouth.

Coccidiosis

Of the internal parasites, coccidiosis is most frequently seen and causes the greatest loss in feedlot cattle. This condition is usually brought on by poorly drained lots, contaminated feed or water, and wet weather. Most animals harbor coccidia, but symptoms may not develop until the animal has been subjected to one or more of these stresses.

The symptoms include mainly a profuse tar-like diarrhea but some animals may have signs of brain damage. Fresh blood may be observed in the manure and straining is often observed as the condition progresses. Several effective coccidiostats are presently sold. In addition, sulfa treatment (sulfaquinoxaline or sulfamethazine) often is quite successful, but can be dangerous if not used correctly. Adequate palatable water should always be available. Antibiotics are of limited value. Administer any form of medication under veterinary supervision.

Central Nervous System Diseases

Two look-alike diseases of the nervous system are polioencephalomalacia (polio, PEM) and infectious embolic meningo-encephalitis (sleeper's, TEMEN, Thrombo).

Polio

Polio may be observed in sheep as well as cattle. It is usually observed in feeder cattle on high energy ration. The symptoms include incoordination, excitement, impaired vision and convulsions. There may be a sudden onset with the calves backing away from the

feedbunk and exhibiting the typical symptoms. Respiratory signs may be observed previous to the nervous signs. Polio is thought to be caused by thiamine deficiency. Various predisposing factors of polio have been mentioned, including overfeeding of urea or antibiotics.

Sleeper's

The first signs observed in sleeper's may be a respiratory problem and/or the inability to rise with no accompanying symptoms. Most cases seem to occur during the colder months. Though able to stand, the animal will be depressed, incoordinated, have knuckling of the fetlocks, convulsions and blindness. A vaccine is presently available for the sleeper syndrome.

Definite diagnosis of these diseases can only be established by laboratory examinations. Supplementation with thiamine and antibiotics may be helpful in correcting these encephalitic problems.

Listeriosis (Circling Disease)

Listeriosis is most often associated with confined animals. It has been diagnosed in cattle, sheep, swine, man, other domestic and numerous wild animals.

The symptoms of listeriosis include elevated temperature, discharges from the mouth and nose, facial paralysis, walking in circles (one direction only), paralysis and death.

This disease is believed to be spread by rodents and is frequently, but not always, associated with silage feeding. Upon detection, isolate suspected animals immediately and call your veterinarian for assistance.

There is no commercial vaccine available for listeriosis.

Parasites

Internal and external parasites interfere greatly with growth or gain. Check new calves for internal and external parasites when they arrive at the feedlot. If parasites are present, follow recommendations for treatment.

Medication for parasites is a form of stress and may start shipping fever or other disease under adverse conditions.

You can do much to prevent internal parasite problems if you keep the yard dry and the water and feed are not contaminated with manure. Internal parasites are spread through the manure. Contaminated feeders and waterers, or other containers, may also spread parasite infection.

Skin parasite problems often become evident after cold weather returns or late in the winter when it is difficult to treat herd infestation. External parasites such as lice, ticks or grubs cause extensive discomfort to the animals and decrease gains.

There are many preparations available that you can spray or pour on the animals in the fall or during warm weather. Spraying the housing area may also help. A good fall application will prevent external parasite problems that come about when weather conditions prevent good control. Louse control appears to aid in controlling respiratory problems.

Back-rubbers with recommended preparations that are always present can help control lice and mange.

Miscellaneous Diseases

Foot Rot

The first symptom of foot rot is lameness, followed by decreased appetite, elevated temperature and depression. Extensive shrinkage and death may result. Calves kept in well drained lots usually have less foot rot. Concrete paved lots provide greater use of available space plus greater protection from foot rot.

No vaccines are available to prevent foot rot. Feeding antibiotics is of doubtful benefit. Feeding organic iodides helps prevent the spread once outbreak has occurred, but prolonged feeding may cause respiratory irritation. Do not feed more than 50 mg. of organic iodide per animal per day.

Some feedlot operators feel that walking all new calves through a foot bath of copper sulfate (5 to 10 percent solution) or formaldehyde (1 percent solution) before entering the feedlot helps prevent foot rot.

Spreading lime plus 5 percent blue vitriol (copper sulfate) around the water and feeding areas or where the cattle will have to walk through it daily definitely helps prevent the disease. The addition of 2 percent steamed bonemeal and a vitamin A supplement to the ration has helped.

No preventive medication can replace good management sanitation. Building mounds in the lot to aid in providing a dry area for calves to stand can be helpful. The mounds should extend in a north-south direction to provide maximum exposure to the sunlight.

When you detect foot rot, treat it at once. Massive dosages of penicillin administered intramuscularly often helps.

Blackleg - Malignant Edema

An outbreak of either of these diseases in the feedlot can be costly. Good, inexpensive vaccines are available for these diseases. They are usually given at the time of spring castration and dehorning. Always inquire if purchased cattle have been vaccinated.

Vaccinate new feedlot calves if there is a history of outbreaks in the specific feedlot or community, if new calves have not been vaccinated, and as an additional assured precaution where history of vaccination is unknown.

The signs of malignant edema include going off feed, elevated temperature and soft swellings locally. Blackleg usually occurs one to five days following infection and is accompanied by lameness, depression and elevated temperature. Edematous, crepitant swelling will occur at the hip, shoulder, chest or neck.

Urinary Calculi (Water Belly)

Urinary or renal calculi appear to vary with the environmental condition and feeding practices. Some suggested causes are pelleted feeds, insufficient salt, high mineral water, lack of water, or unbalanced calcium-phosphorus ratio (high phosphorus , low calcium).

The first symptoms of renal calculi may be mineral deposits on the preputial hair, dribbling or frequent urination, and depression. These symptoms are followed by stiffness, decreased appetite and various degrees of swelling in the lower abdomen or about the preputial region. As the condition progresses, diarrhea, stiffness and swelling increase.

Antibiotics do not prevent urinary calculi and sulfonamides may actually cause urinary calculi if incorrectly administered. Increasing the salt intake by adding up to 5 percent salt in feed has definitely helped prevent urinary calculi. If salt is used as a preventive be sure that sufficient clean water at a temperature of 40 to 65 degrees Fahrenheit is readily available. If water is not readily available, salt poisoning may result. Ammonium chloride has also been suggested as a preventive. It has basically the same action as salt. It will increase water intake but may decrease feed consumption.

When the symptoms of urinary calculi have become definitely evident, the only cure is veterinary surgery. In some instances smooth muscle relaxants will relieve the urinary calculi problem. Surgery procedures are economical and animals may be marketed without deduction within six weeks following surgery.

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