Lot feeding of beef cattle. 5. Feed lots and animal health

W J O Wilkie

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BRINGING cattle from various sources together in a feed lot makes them more liable to disease than they would be in the open paddock. Precautions, careful selection, prevention and vaccination can reduce the risk of disease and the possible need for treatment during the feed lot fattening period.

Adult dry cattle are usually healthy. Actual losses from death are low, except in drought. Because of this experience with widely-dispersed paddocked cattle, there is a tendency to think of beef cattle as being not subject to health hazards. This position changes in the feed lot. Cattle brought from a wide range of environments, after having had contact, either on their home property or in transit or sale yards, with all sorts of conditions can bring many diseases to a feed lot. There they may be kept for months under relatively crowded conditions. The continued throughput of cattle makes the possibility of introduction of disease an ever-present risk. The crowded conditions make the spread of an introduced disease certain.

In addition the specialised system of feeding for rapid growth has its own health problems.

The animal health problems which are likely to be met under feed lot conditions should be considered.

Previous History

The previous history of the animal can influence its health and vigour. For this reason, no animal that is too poor should be bought, unless an immediate past history of drought is known. Stunted animals—small for their age—will never pay in a feed lot.

Tuberculosis

The risks of tuberculosis have lessened over the years but it can still cause loss. The best protection against the disease is to purchase from clean areas. The alternative is to have beasts of unknown origin T.B. tested. On a feed lot the risk is not only of losing the carcase of an animal brought in with the disease but also of losing many in-contact animals.

Worms

Young cattle brought to a feed lot may carry worm burdens which will affect their appetites and growth rates. The importance of this factor will not be known until we have had some experience with feed lots, but it would be a reasonable procedure to drench any rough-coated youngsters when they are brought to the yards.

Lice

Lice have been known to increase the fattening period for adult steers by six weeks. Feed lots will never be free of the risk of lice build up and spray equipment will be needed and will prove a profitable investment.

Tick Fever and Tick Worry

Tick will only be a problem to feeders in our northern areas. If not controlled, they will cause heavy losses. However, satisfactory control measures are possible.
Cattle brought on to a feed lot for fattening can be sprayed to rid them of their current load and will run little risk of reinestation. Cattle being brought from clean areas, either through, or to, a tick area, can be inoculated against tick fever.

It is possible that the most profitable feed lots in Western Australia will be established in the north—not for lot fattening, but to feed young females to get them through a drought.

Tick diseases and contagious pleuropneumonia would be possible disease problems under those circumstances.

**Tetanus**

Tetanus losses are sporadic but vaccination is so cheap that it is a worthwhile insurance to vaccinate all incoming cattle, and the men working with them.

**Enterotoxaemia**

This is a disease occasionally recognised in paddock cattle. It is considered a standard risk in lot feeding and for this disease also vaccination may prove the best defence.

**Grain Poisoning**

This is an acute digestive upset which frequently occurs in cattle fed more grain than they can handle. In recent years, there has been a great development of barley feeding to steers in Britain. Along with this there has been a steady stream of reports in the veterinary literature on mortalities in barley fed cattle. The condition has been seen in lot feeding trials in Australia.

Management and care in feeding seems to be the most economic control as the condition is easier to avoid than to treat.

**“Hardware Disease”**

This is a good common-sense name for a condition known in the surgical books as traumatic reticulitis, or wounding of the wall of the second stomach. The wound is caused by some piece of “hardware,” such as a nail or part of a spring, which has pierced the stomach. If the perforation reaches the heart, which may be only an inch or so away, the animal will die immediately. This is rare, and the animal is usually seen standing apart, holding itself stiffly in a “hunched” attitude, and will be unwilling to move, and especially to move in a circle.

Veterinary intervention may effect a swift recovery. Without treatment the animal may die, or become a chronic poor doer.

Management can reduce hardware disease. Troughs should be kept free of nails, etc., and magnets can be fitted to milling and mixing equipment to remove most of the dangerous items.

**Indigestion**

This is a rather vague disease. It is usually a condition where the animal is off feed, sometimes completely, and is somewhat dull and restless. Indigestion can usually be cured by some attention to the feed such as removal of all grains.

The importance of the condition is that similar signs may be seen in the early stages of other diseases, and a beast which is believed to have indigestion should be removed to the hospital pen and carefully watched for developments.

If a group of animals show the same symptoms, swift attention should be paid to the ration, and veterinary advice sought if improvement is not seen quickly.

**Bloat**

Bloat may occur in animals unable to handle the ration used in a feed lot. Animals which bloat frequently should be turned out to grass or sent to slaughter. Where bloat occurs in groups of animals it may be possible to control by feeding methods. One possibility worth investigation is the use of low levels of antibiotics.

Special drenches are available which effect a temporary cure, and a trochar and canula, thrust into the paunch may have to be used in rapidly progressing cases.

**Founder**

High grain feeding, especially if introduced too suddenly, may lead to a condition of lameness, and a painful death. The disease is recognised by a history of high grain intake, increased temperature of the feet and the leg adjoining the feet, extreme tenderness of the feet, a proppy lameness, and unwillingness to move. Progress is being made in the development of drugs which will cure the condition. Veterinary aid should be sought as quickly as possible. Immediate first aid should be to move the animal to smooth soft ground which should be hosed in dry conditions.
Broken Bones

These will occur occasionally, but many accidents can be avoided. Good unloading and loading facilities help. Making sure that no rails or pipes, are left lying where animals may encounter them, quiet handling, yarding animals in graded groups, having gateways wide enough to avoid jamming, and crush and bail not so wide that animals are tempted to try to turn in them will reduce the risk of accidents.

One report quoted deaths arising from broken bones at 1 per cent, of the cattle yarded. Not all such accidents represent a complete loss, as it may be possible to get the animal to a butcher, but it will pay to avoid accidents.

Pink Eye

Experience has shown that one of the problems of bringing paddock cattle together in yards is the outbreak of pink eye which frequently occurs.

Precautions are to keep flies to a minimum and to put new cattle on to feed which has a minimum of dust.

Mild cases may be left undisturbed, but it has been found that a painful attack of pink eye may mean a retardation of up to 60 lb. growth in a month in young cattle. Modern treatment can reduce the severity of the attack, and in well-planned yards, treatment will not take long.

Ringworm

This is a disease of young cattle, and if possible should be avoided when the cattle are purchased. Cattle will recover with age, and if only a few cases are present they should be removed to the hospital block and treated. Fungicidal ointments and lotions should be used on the external signs, and recent research suggests high doses of Vitamin A may speed the recovery of these cases.

Coccidiosis

This is a disease of young cattle which occurs in warmer weather. The cause is an organism which passes out of infected animals in the droppings, and after a few days is able to set up the disease in a new host.

Signs of an acute attack are severe loss of condition, and blood in the droppings.

DISEASE CONTROL IN A FEED LOT

Reject animals with:
- lumpy jaw
- eye cancer
- acute scours or other signs of current illness
- and from herds not TB free

Provide handling, inspection, treatment and isolation facilities. Have feed yards safe for animals

Treat, on arrival, for:
- lice
- worms
- ticks
- ringworms

Vaccinate all animals against:
- tetanus
- blackleg
- enterotoxaemia

Remove horns and grade into uniform groups

Manage feeding to avoid:
- bloat
- founder
- indigestion
- grain poisoning
- mouldy feed poisoning
- chemical contamination
- "hardware" disease

Watch for and treat as required for:
- footrot
- pink eye
- viral diseases (diarrhoea)
  (pneumonia)
- and any other cause preventing rapid growth and good feed conversion.
Medicinal treatment is possible, but the best approach is prevention. Arrange the feed troughs so that the feed stays clean. Do not allow young cattle to eat contaminated feed off the ground. Do not feed successive groups of young cattle in the same yards without thoroughly cleaning out the feeding area.

Footrot
This condition can cause a severe reduction in growth. Very acute pain in one foot is the usual first sign, and treatment at this stage usually succeeds. In severe cases and where a secondary infection has occurred it is sometimes necessary to amputate a digit to affect a cure.
Efforts are being made to produce a vaccine, and this may in time be the answer.

Lumpy Jaw (Actinomycosis)
Cattle with any sign of lumpy jaw should never be allowed on a feed lot. They should be avoided in the first place, and if a cow develops it on the feed lot, it should go to slaughter immediately.
It is now being shown that there is a genetic basis to the susceptibility to lumpy jaw, and if feed lots develop, experience will show what strains of cattle are most prone to the disease.

Cancer of the Eye
Cattle showing signs of this should be avoided. Most cases that begin to develop on the feed lot will usually not progress to the stage where they affect growth in the usual time taken to reach market weight.
Should a case progress rapidly, the individual circumstances will determine whether immediate slaughter, or an operation for the removal of the growth, will appear most profitable.

Blackleg
This is an acute condition. The animal is usually found dead. If found in time, antibiotic treatment may be successful.
Vaccination is a useful procedure and could be justified when young cattle are being purchased.

Virus Diseases
Virus diseases occasionally cause loss on feed lots. The most important are the mucosal disease complex, virus diarrhoea and pneumonia.
The incidence of these will increase enormously in the conditions incidental to lot feeding on a large scale.

CONCLUSION
This article does not exhaust the list of diseases which may affect cattle in feed lots. It only attempts to cover conditions that have been seen in Australia, or that have been reported as important in lot feeding overseas in recent years.
Successful management of a feed lot in the United States requires an overseer constantly in attendance to check feeds and feed consumption, and a readily available veterinary service.