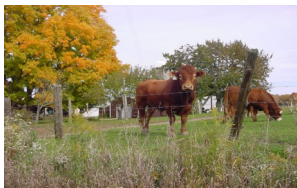


Autumn Report

Topics in the Autumn Report:



- ⇒ **BOVINE JOHNES DISEASE**
- ⇒ **ARE YOUR CATTLE ABORTING**
- ⇒ **PESTIVIRUS**
- ⇒ **THEILERIOSIS**

Bovine Johnes Disease – Do you Buy Dairy Calves

Bovine Johnes Disease (BJD) is a bacterial infection caused by the bacteria *Mycobacterium paratuberculosis*. The disease causes diarrhoea and wasting in adult cattle. Animals become infected early in life (<12 months) and the disease has a long, but variable incubation period. The disease is uncommon in the Mid Coast LHPA, with only a handful of known infected properties. The disease is more commonly seen in dairy cattle than in beef cattle, and as a result recent changes to the management of BJD in NSW have seen different approaches in the beef and dairy sectors.

Infected beef herds are quarantined and financial assistance is available to beef producers with infected herds. Dairy herds known to be infected are not quarantined, however all dairy herds must declare a dairy assurance score (DAS) when selling cattle. Male bobby calves less than 10 days of age, steers and dairy cattle sent direct to slaughter or a slaughter only sale are exempt from the requirement to provide a DAS.

The dairy assurance score gives an indication of the risk of those animals being infected with BJD. Infected dairy herds are identified with a score of between 1 and 6, depending on the level of infection in the herd, and the control program in place in that herd. Herds with a score of 7 or higher represent a lower risk of being infected with BJD (though not a guarantee that they are not infected). Given that a DAS is not required for male bobby calves it is possible that calves off infected dairies could be purchased by beef producers. In this case the purchaser will be contacted after the sale by LHPA staff and advised that the animal represents a risk to their herd.

If you are considering buying dairy or dairy cross calves we recommend

- ⇒ Buying only animals with a dairy assurance score of 7 or higher
- ⇒ If buying male bobby calves make enquiries as to the BJD status of the herd of origin and avoid calves from known infected herds
- ⇒ Look for bright healthy calves, with dry navels and without evidence of scouring
- ⇒ Where possible buy calves directly from a dairy rather than through a saleyard



ARE YOUR CATTLE ABORTING

There are a number of potential causes of abortion in cattle. The first thing to determine is at what stage of pregnancy the cows or heifers are losing calves. If an aborted fetus can be found this may be easy, however in many cases aborted fetuses are not found and it may be that animals which were thought to be in calf are seen cycling. The class of animal aborting is also important to note, is it just heifers or are cows affected as well.

The following are some of the common causes of abortion which are seen in this area.

NEOSPOROSIS

Caused by a protozoan parasite called *Neospora caninum* this is being increasingly more common in coastal NSW. Causes abortion late in pregnancy, usually after 4 months. Infected cows are thought to remain infected for life and have an increase risk of abortion than non infected animals.

The disease can be spread by dogs, both domestic and feral, and also can be transmitted from cow to calf.

LEPTOSPIROSIS

Leptospirosis is a bacterial disease which can cause abortions, usually in cows which are more than 5 months in calf. The bacteria may be shed by infected animals in urine or uterine fluids and survive for long periods in wet conditions. Rodents and wild animals can also transmit the disease.

Leptospirosis can affect humans, and may cause severe illness. Signs in humans include flu like symptoms, headache, muscle pain.

Vaccination for Leptospirosis can be achieved using 7 in 1 vaccine and should be considered for both animal health and human health.

VIBRIOSIS

Bovine vibriosis or Bovine Venereal Campylobacteriosis is one of the most important infectious venereal diseases of cattle in Australia. The disease is spread when infected bulls mate susceptible cows and heifers. Vibriosis causes early embryonic loss in cattle, which may be seen in the herd by cows or heifers having prolonged or irregular cycles. Females often develop immunity to the disease so may get in calf after a period of time. Occasionally vibriosis can lead to permanent infertility in cows.

Vibriosis can be easily controlled by vaccination and vaccinating bulls annually prior to joining is the best way to maintain vibriosis free herds.

PESTIVIRUS

Pestivirus can cause a range of signs in a herd including reproductive failure, abortion, or birth of abnormal calves. The clinical signs depend on at what stage of pregnancy the cow was exposed to the virus. Carrier animals in a herd are usually responsible for spreading the disease.

A vaccine for pestivirus is available.

There are a number of bacteria that may cause a "septic abortion", and an animal that develops a fever due to any illness, such as 3 day sickness, may also abort.

If you do happen to have problems with abortions a post mortem examination of an aborted calf is the best way to find the cause. Unfortunately in a significant number of abortion cases we are unable to make a definitive diagnosis. Blood tests may be done on animals which abort but need to be interpreted carefully.



Vaccination may be useful to protect against some causes of abortion



An aborted foetus

PESTIVIRUS

In the Mid Coast Livestock Health and Pest district, most herds will have been exposed to Pestivirus at some stage. The spread of the virus is unrecognised because its symptoms in adult cattle are so mild as to be unnoticed. Production loss occurs however, when the foetus is affected.

Production Loss

A problem arises if a cow or heifer becomes exposed to the virus for the first time, while she is pregnant causing:

Return to service - due to early embryonic death

Abortion

Still born calves

Abnormal or deformed calves

Small, stunted calves

Unthrifty calves or "poor do-ers"

These calves appear to be normal initially, but die before 2 yrs of age with chronic weight loss. They may or may not, also show signs of diarrhea, nasal discharge and ulcers in the mouth and feet. These calves are also "carriers" of the virus and spread the virus throughout their lives to others animals in tears, nasal discharges, milk, urine and manure. The animals are frequently called PI's or persistently infected animals.

Natural Immunity

Many herds in our district have PI's that maintain continual infection in the herd. In these herds heifers come in contact with the virus, become infected and develop immunity before reaching mating age. The foetus of these animals will not be affected if contact with pestivirus occurs during pregnancy.

When it does become a problem

In some districts the disease may die out or have reduced activity for a number of years. If infection is introduced or becomes more active, then major production problems may occur because of reduced immunity in these herds.

Feedlots

Pestivirus can cause respiratory disease in feedlots, especially when first introduced to the feedlot. Mixing of animals increases exposure to the virus which, in stressed animals, can cause a weakness of the general immune system which may allow other viruses and bacteria to infect the animal causing more severe respiratory disease.

Diagnosis

Persistently infected animals (PI's)

PI's may be diagnosed using a blood test, an ear notch test or more recently a tail hair test.

Some shows are now requesting a PI test with negative results for beef cattle entries. Hair testing kits are available from LHPA offices or private veterinary practitioners and laboratory costs are about \$13 each. This test simply involves pulling some tail hairs from the brush, sticking these on a card with a label and posting off to the lab.



A persistently infected animal



If you know of anyone who has not received this newsletter and would like to, get them to contact their local office and be added to the email list

Theileriosis

Theileriosis is a disease caused by the protozoal red blood cell parasite *Theileria*. There are many strains of *Theileria* and only some strains have been associated with clinical signs. Generally speaking the strains seen in Australia are less severe than some seen overseas. The organism is spread to cattle by the Bush Tick (*Haemaphysalis* sp.). The infection is thought to have been introduced into Australia with *Haemaphysalis longicornis* from Japan. Infection with *Theileria* in cattle on the Mid North and North Coast is very common, however in most instances does not cause clinical signs of disease. Clinical signs are becoming increasingly common and is most frequently seen in cattle introduced from areas west of the Great Dividing Range, or from southern NSW or Victoria. It is believed that these introduced cattle have no immunity to the organism, having not been exposed to it before. Locally bred cattle are infrequently affected, although clinical disease has been seen in young locally bred calves 3-8 months of age.

Clinical Signs

The protozoa cause damage to red blood cells and as a result a reduction in the number of red blood cells in the circulating blood (anaemia). Clinical signs are usually first seen in introduced cattle about 6-8 weeks after introduction. The clinical signs are a result of this anaemia and include

- Fever
- Weakness
- Recumbency
- Pale ,jaundice (yellow) membranes in the mouth, eyes and vulva
- Abortion and stillbirths
- Aggression
- Death

When attempting to yard affected animals it is common for them to lie down. Some animals which are affected will survive, however many die. Higher death rates are seen in animals with additional stress factors such as cows around the point of calving. At post mortem the carcass is jaundiced and the liver is enlarged and ochre coloured.

Treatment

Currently there is no registered, known effective treatment for affected animals. Treatment using broad spectrum antibiotics, antiprotozoals, and vita-

min and mineral supplements have all been tried with varying results. Providing affected animals with easy access to water, feed and protection from the elements is a must.

Using tickicides, effective against the bush tick, on cattle introduced from western or Southern areas may help reduce the incidence of clinical signs.



The membranes inside the vulva of a cow with Theileriosis are pale and yellow.

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