

Enzootic bovine leucosis

Introduction

Enzootic bovine leucosis (EBL) is a viral disease of cattle and buffalo. In most cases, the disease will not cause clinical signs and there will be no obvious loss in production. However, in some cases, the disease may develop into a cancer of the lymph nodes, which can spread to the internal organs. There is no treatment for EBL, which is a nationally notifiable disease.

Following a successful eradication campaign, the Australian dairy herd was declared free of EBL in 2012. However, some Australian beef herds may have a low level of EBL. Extensive serosurveys conducted in the Northern Territory in 1998 and 2010 showed a very low prevalence of EBL on a small number of floodplain properties in the Darwin region, but there has been no evidence of clinical cases in the Territory. Some countries that import Territory cattle and buffalo may have requirements for EBL property freedom declaration.

Signs of EBL

Although cattle and buffalo are susceptible to EBL, dairy cattle are affected more often than beef cattle. Some affected cattle will not show any signs and appear healthy. Others may become obviously ill as the cancer develops and spreads from the lymph nodes to the internal organs. The signs will depend on which internal organ is affected. Swollen lymph nodes may be prominent around the shoulder and neck area. Death often occurs a few months after the onset of clinical signs, unless the animal is culled earlier.

Transmission

The virus is spread from cow to calf through the milk or while in the uterus. Adult cattle can become infected through the transfer of blood. This can occur when contaminated needles are used for vaccination, contaminated instruments are used for dehorning, or when contaminated equipment is used during rectal pregnancy tests.

Diagnosis

EBL is diagnosed in laboratory testing that identifies antibodies to the virus in samples of blood or milk. On post-mortem examination, a clinically affected animal may show changes such as the enlargement of lymph nodes, liver, spleen or kidneys.

Prevention

The impact of EBL on beef cattle is low. EBL can be prevented in dairy cattle by:

- preventing the transmission of blood between cattle during examination or treatment by using new disposable or cleaned and disinfected equipment for each animal during vaccination, dehorning and pregnancy testing
- introducing only cattle that have tested negative to EBL into the herd.

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