

Three Day Sickness or Ephemeral Fever

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Three day sickness is a viral disease of cattle which is constantly present (endemic) in the Top End of the Northern Territory and affects cattle across a wide area of the Darwin and Katherine districts and the Barkly Tableland. It has not been reported in the Alice Springs region. In the southern parts of its range the disease appears only intermittently and where there has been no disease for several years such as on the Barkly Tableland, large numbers of stock will be affected by an outbreak because younger stock will not have any immunity.

SPREAD

The disease is spread by mosquitoes and biting midges whose movement year by year determines the distribution of the disease. It is most commonly seen in the wet season extending into the early dry when insect numbers are higher. The incubation period (time between infection and development of clinical signs) is usually about three days.

CLINICAL SIGNS

Mild cases:

Fever, discharge from the eyes and nose, muscle tremors and temporary lameness.

Moderately severe cases:

Animals lying down, joint swelling, loss of appetite, depression, loss of rumen motility and subcutaneous oedema.

Severe cases:

Paralysis of limbs, profuse salivation, may lead to coma and death.



Figure 1. A cow showing moderately severe signs

Clinical signs generally persist for about three days then disappear suddenly with complete recovery – hence the name of the disease. Heavy stock may be affected more severely. Bulls appear to be more commonly affected while calves less than six months are rarely affected. The proportion of animals in a herd which are affected can be high; however, mortality is generally low (less than 1%).

IMPLICATIONS FOR THE CATTLE INDUSTRY IN THE NT

During an outbreak, mustering has to be disrupted because the stress it causes may increase mortality. Animals that go down may die of thirst in hot weather or suffer a loss in condition when feed is in short supply. Milk flow is diminished in lactating cows thus calves may require supplementary feeding.

Bulls may become temporarily infertile and cows in late pregnancy may abort.

Stock moving from the Alice Springs region to the northern part of the NT during an epidemic run a high risk of becoming infected and develop clinical symptoms.

After natural exposure to the disease a long lasting immunity is sustained.

TREATMENT

Treatment of three day sickness is supportive and animals usually recover spontaneously after approximately three to four days. Ensure that the animal has water and feed (although they may not drink or eat) and if possible provide shade. It is also important to have the animal resting on its brisket and not on its side where it will be more likely to develop lung infections. Anti-inflammatory drugs have been used in some cases.

PREVENTION

A vaccine is available. A course of two doses at a two to four week interval is required. A single dose does not provide any immunity. Vaccination is most effective and lasts the longest when two doses are given four weeks apart. Immunity lasts for up to 12 months. The current cost of the vaccine is approximately \$3.00 per dose (GST inclusive). The vaccine can only be ordered through your veterinary surgeon.

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ISSN 0157-8243

Serial No. 640

Agdex No. 420/653

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