

Theileria and anaemia in cattle

Fact Sheet #3: Detection and treatment

October 2013

Cases of cattle being affected by the blood-borne parasite *Theileria orientalis* (Ikeda), which causes anaemia, have been on the increase since late 2012, particularly in the northern half of the North Island.

Detection of *Theileria* infection

Infection with *Theileria* can cause anaemia in cattle, so the signs to look out for are those associated with anaemia. These include:

- cows lagging on the walk to the shed
- increased respiratory and heart rate
- pale or yellow, rather than healthy pink, vulva (open up the vulva and look at the colouring inside)
- pale udder
- whites of eyes yellow (a sign of jaundice)
- a lack of strength or energy to do anything
- sick cows not responding as expected to treatment for conditions such as milk fever
- excessive weight loss in adult animals or poorer than expected growth rates in growing animals
- a decrease in milk production
- sudden death in severe cases.

Signs of anaemia caused by *Theileria* are more likely to be seen:

- around calving time
- calves from weaning to about 6-7 months of age
- if animals are already sick or coping with some other health challenge
- potentially at mating time.

***Theileria* infection is confirmed by carrying out blood tests. These will show:**

- the severity of the anaemia (a PCV test)
- the presence of *Theileria* in red blood cells (blood smear test)
- what strain of *Theileria* is present (a PCR test completed by the MPI laboratory).

Treatment

To prevent new infections ticks need to be controlled, especially during times of stress like calving. Your veterinarian will be able to provide advice on different types of treatment and their use.

A decision needs to be made on whether the cows most severely affected are worth treating or if they should be culled. Your veterinarian can advise you and assist with making these decisions.

If you choose to treat the animal there are a range of options, including:

Blood transfusions – an option to treat cows severely affected by anaemia. A blood transfusion will replace red blood cells destroyed by *Theileria*.

Drug treatment – one drug treatment is available to treat the *Theileria* infection. This drug is being specially imported into New Zealand and has strict controls regarding its use.

NOTE: drug treatment requires a milk withholding period of 35 days and a meat withholding period of 140 days. Offal has a permanent withholding period so must be discarded. Animals treated with the anti-*Theileria* drug must be permanently tagged so they can be identified for the remainder of their lives, and registered as treated on the NAIT website. Your vet will advise you on these requirements.

Caring for the cow – depending on the severity of infection, not all cows will require blood transfusions or drug treatment, however you will need to:

- minimise stress and movement of affected animals
- consider once-a-day milking for lactating cows, and graze these cows close to the dairy to minimise walking distances
- give affected animals easy to eat, high quality feed and plenty of water
- handle the affected cattle only when necessary
- provide access to shelter.

Further advice is available

- From your veterinarian
- dairynz.co.nz/theileria for all fact sheets
- 0800 4 DairyNZ (0800 4 324 7969)