

# FACT SHEET

## THEILERIOSIS



### WHAT IS THEILERIA?

Theileria is a microscopic blood parasite carried by ticks and has caused significant disease in Australian cattle herds over the last 10 years.

*Theileria orientalis* (Buffeli strain) has been recognised in Australia for more than 100 years but only causes apparent or mild illness. The more severe illness seen in the past decade is associated with a new strain, *Theileria orientalis* 'ikedai'.

The disease Theileriosis has recently been called Bovine Anaemia caused by *Theileria orientalis* group (BATOG).

The name BATOG is used to distinguish the disease in Australia from the more severe exotic diseases caused by other *Theileria* species like East Coast Fever in eastern Africa.

### HOW IS IT SPREAD?

Theileriosis is spread between cattle by the bush tick *Haemaphysalis longicornis*. This tick is found in the high rainfall temperate regions of Australia. It is a multi-host tick, dropping off the host to moult before finding another host. It does this three times in its life.

The bush tick is strongly associated with cattle but can infest most wild and domesticated animals. It can be almost invisible on farm, spending around three weeks of its nine month lifecycle on cattle. Many producers are unaware the tick exists on their farm.

Movement of infected cattle is the main method of spread for Theileriosis between farms or to new areas.

### HOW CAN IT AFFECT YOUR HERD?

Calves two to three months old, late pregnant or recently calved cows are most susceptible to infection. The impact of the disease is greatest when previously unexposed, naïve, animals are infected through the introduction of infected animals to a previously unexposed herd or the introduction of naïve animals to an infected herd.

Clinical signs of theileriosis include:

- ▶ anaemia
- ▶ lethargy and/or weakness – a lack of willingness to walk
- ▶ fever
- ▶ red urine
- ▶ jaundice – yellowing/pale gums
- ▶ increased heart rate and/or difficulty breathing – gasping if forced to run
- ▶ lower milk production
- ▶ abortion or still-birth
- ▶ dystocia or death.



**Image 1.** Adult female bush tick *Haemaphysalis longicornis*.  
Source: Wikimedia Commons.

As the signs aren't specific, it is important to confirm diagnosis with a blood sample taken by a vet. The sample needs to be taken early in the infection for an accurate diagnosis.

## MANAGEMENT TOOLS

### Treatment

There are no specific treatments for Theileriosis registered in Australia.

Treatment options are limited to care and support including avoiding stress when moving animals. With good nursing and reduced stress, many animals will fully recover clinically but remain infected for life.

### Prevention

There is no vaccine for Theileriosis so prevention is important.

- ▶ General biosecurity principles are the basis for prevention, such as avoiding bringing animals into your herd from infected properties.
- ▶ If your herd is infected, avoid introducing previously unexposed cattle from non-endemic areas.
- ▶ Treat cattle with a registered bush tick treatment to remove the ticks before they leave their property of origin. However, this does not prevent theileriosis from being introduced as cattle can carry the disease for life, and may be a risk if you already have ticks that can spread the disease on your property.

## TAKE HOME MESSAGES:

- ▶ Theileria is a parasite that can cause anaemia, fever, abortion and even sudden death in cattle.
  - ▶ The disease requires the Theileria parasite and bush ticks to spread.
  - ▶ Previously unexposed animals or herds are most affected.
  - ▶ With good nursing care, many affected animals will recover.
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- ▶ Quarantine new animals to an area of the farm that is hostile to the survival of any remaining ticks, such as a dryer area with little ground cover.
  - ▶ It may be worth treating animals with a tickicide if heavy tick infestations occur. However, eradication is not practical as the tick is only on the cattle for about three weeks of its nine month lifecycle.

For more information contact Stock Sense on 1300 020 163 or [stocksense@vff.org.au](mailto:stocksense@vff.org.au).

## FURTHER LINKS

[Bovine anaemia, Meat & Livestock Australia](http://www.mla.com.au/news-and-events/industry-news/bovine-anaemia-theileria-is-more-than-a-bug-in-the-blood/)

[www.mla.com.au/news-and-events/industry-news/bovine-anaemia-theileria-is-more-than-a-bug-in-the-blood/](http://www.mla.com.au/news-and-events/industry-news/bovine-anaemia-theileria-is-more-than-a-bug-in-the-blood/)

[Benign theileriosis, Agriculture Victoria](http://www.agriculture.vic.gov.au/agriculture/pests-diseases-and-weeds/animal-diseases/vetsource/benign-theileriosis-in-victoria)

[www.agriculture.vic.gov.au/agriculture/pests-diseases-and-weeds/animal-diseases/vetsource/benign-theileriosis-in-victoria](http://www.agriculture.vic.gov.au/agriculture/pests-diseases-and-weeds/animal-diseases/vetsource/benign-theileriosis-in-victoria)

[Benign theileriosis, Australian Veterinary Association](http://www.ava.com.au/sites/default/files/Benign%20Theileriosis_IPoe.pdf)

[www.ava.com.au/sites/default/files/Benign%20Theileriosis\\_IPoe.pdf](http://www.ava.com.au/sites/default/files/Benign%20Theileriosis_IPoe.pdf)

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