

# Bluetongue Virus Surveillance

13 October 2017

*Agriculture Victoria is undertaking an intensive disease surveillance activity in cattle herds in northern Victoria following laboratory confirmation of likely recent exposure to bluetongue virus (BTV) in a cattle herd south of Echuca.*

## BLUETONGUE VIRUS

BTV is endemic in northern and parts of eastern Australia (Figure 1). Whilst the actual virus has not been demonstrated in the Victorian cattle herd, this is the first evidence of recent exposure of livestock to the virus in Victoria.

This surveillance testing is an important step in determining if the recent detection is an isolated case.

There have been 26 serotypes (strains) of the virus detected world-wide to date, with twelve serotypes isolated in northern Australia.

## HOW IS THE VIRUS SPREAD?

The virus is not spread directly from animal to animal (i.e. is not contagious).

The virus is spread to ruminant animals by biting midges (*Culicoides* species), i.e. it is an insect-borne viral (arboviral) disease. To date the biting midge *Culicoides brevitasis* has been considered the most important vector (i.e. insect carrier of disease) of BTV and the distribution of BTV in Australia is largely determined by the distribution of this insect. This insect species is generally limited to the northern areas of Australia and is not present in Victoria.

Infected animals may remain infective (viraemic) for up to a maximum of 60 days. An insect vector spreads the virus through biting a viraemic animal, then transferring the virus to other ruminants.

## WHAT SPECIES ARE AFFECTED?

Cattle are the most commonly infected ruminant. However, other ruminants including sheep, goats, buffalo, camelids and deer are susceptible to BTV infection.

There has been no evidence of clinical disease in Australian livestock species to date, however the different BTV serotypes can cause varying severity of clinical disease in ruminants as seen in some overseas countries.

Sheep are the most severely affected livestock species and may present with a range of clinical signs. These include depression; swelling of lips, tongue, gums and face; cyanotic (blue) tongue; lameness; unwillingness or inability to stand; pneumonia and/or laboured breathing.

The strain of virus will have an important effect on the clinical expression of bluetongue disease.

Any health concerns in your livestock should be reported immediately to Agriculture Victoria on 1800 675 888 or your veterinary practitioner.

## CAN THE VIRUS SPREAD TO HUMANS?

No. Bluetongue virus does not infect people (i.e. is not zoonotic).

Meat and milk is safe to consume. Animals which have been infected do not pose a food-safety issue.

## WHY THE CONCERN?

The presence of BTV can affect access to some international trade markets for cattle, sheep and goats destined for BTV 'sensitive' countries.

Victoria's economy benefits from the export of ruminant livestock and their genetic material (i.e. semen and embryos). This trade depends on a shared confidence between Australia and its trading partners that risks to the animal health status of the importing country can be accurately assessed and properly managed.

## BTV SURVEILLANCE ACTIVITY

Agriculture Victoria will be undertaking targeted surveillance in a number of northern Victorian cattle herds. Blood samples will be collected for laboratory analysis to determine the extent of exposure to the virus in cattle herds, and for the presence of virus.

Insect trapping activities will also be undertaken on several northern Victorian cattle properties over the next few months to test for the presence of BTV in the *Culicoides* species present in Victoria.

**Figure 1.** Bluetongue virus zone map as of 13 October 2017. Yellow = BTV Transmission Zone, grey = BTV Buffer Zone, green = BTV Free Zone. Note the zone of possible transmission and buffer zone in Victoria. Source: National Arbovirus Monitoring Program, 13 October 2017.

## FURTHER INFORMATION

If you have further questions regarding BTV surveillance, please contact an Agriculture Victoria Veterinary or Animal Health Officer by visiting your local Agriculture Victoria office or telephoning **136 186**.

## ACCESSIBILITY

If you would like to receive this publication in an accessible format, please telephone 136 186.

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