

27 March 2024

## Bluetongue virus (BTV)

### Information for sheep owners and producers in NSW

#### *Detection and management of endemic bluetongue strains in NSW*

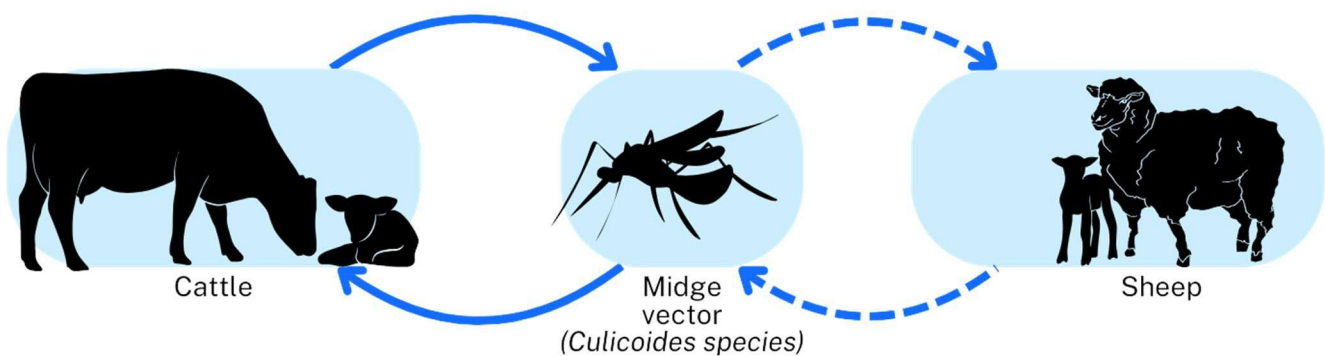
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#### BTV background

Clinical bluetongue virus (BTV) has been detected on sheep properties within the NSW BTV transmission zone in February and March 2024. In May 2023, clinical BTV disease was diagnosed for the first time in NSW livestock on two sheep properties in the BTV transmission zone.

The 2024 detections of BTV have been the BTV-1 strain, which is known to occur within the BTV transmission zone. The National Arbovirus Monitoring Program (NAMP) interactive BTV transmission zone map is available online: <https://namp.animalhealthaustralia.com.au/public.php>

Bluetongue is an insect-borne viral disease of ruminants that does not affect people. BTV is spread by biting insect vectors, particularly *Culicoides* midges. All ruminant species, including cattle, sheep, goats and camelids are susceptible. However, bluetongue is primarily a sheep disease. Infection in cattle is usually not detectable. The severity of different strains of bluetongue varies significantly.



BTV1 disease transmission pathway

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#### Clinical signs

The death rate is variable in affected sheep and generally ranges from zero to 30% depending on the virus strain and sheep genetics. Goats are affected less commonly and less severely than sheep.

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Clinical signs may range from acute to mild and typically involve:

- Variable, fluctuating fever
- Lethargy
- Hyperaemia or reddening of oral and nasal mucosae
- Excess salivation and nasal discharge
- Lips and tongue may become swollen, and the swelling may extend over the face and under the jaw
- Respiratory signs, including difficulty breathing
- Haemorrhages or bruising or bleeding occur on oral and conjunctival mucosae
- Ulcers develop on gums, cheek and tongue 5 to 8 days after the onset of fever
- Feet lesions may appear towards the end of the febrile period
  - There is reddening and petechial bruising on the coronary band, at the top of the hoof
  - The associated pain causes the animals to stand with arched backs and be reluctant to move.

The virus is most concentrated in the blood during the early stage of disease before antibodies develop. However, it can be reliably detected at least 7 to 10 days after the onset of disease.



BTV1 affected sheep showing hyperaemia or reddening on oral mucosae with ulcers developing on the gums.



BTV1 affected sheep showing muzzle lesions and scabs, with secondary to swelling of the nose and lips, and lower jaw.



BTV affected sheep showing oedema over the face and submandibular space under the jaw.

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## Reporting

Bluetongue in sheep, goats and cattle is a notifiable disease in NSW. This means you have a legal duty to report all suspect BTV animals in your care. This is detailed in the Biosecurity Act 2015 (Sections 30 and 38) and the Biosecurity Regulation 2019 (clause 7).

This duty applies to an owner, occupier, or person in charge, care, control, or custody of a premises (such as a property), or a carrier or thing (such as an animal, animal product, vehicle, or equipment) to which the notifiable matter or biosecurity event relates.

This duty also applies to a person consulting in their professional capacity, such as a veterinarian. There is no requirement to report if you know the matter has already been reported.

If you see signs of disease consistent with BTV or other unexplained signs of disease or sudden death in your sheep, immediately call the **Emergency Animal Disease Hotline, 1800 675 888** or your Local Lands Services (LLS) District Veterinarian, 1300 295 799.

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## Differential Diagnoses

A veterinary assessment is required for an accurate diagnosis as the clinical signs of BTV are similar to these sheep diseases:

- scabby mouth (contagious pustular dermatitis)
- acute photosensitisation
- lameness due to footrot, foot abscess and other foot conditions
- acute haemonchosis (with depression and submandibular oedema)
- facial eczema
- pneumonia
- plant poisoning
- salmonellosis
- sheep pox
- foot-and-mouth disease
- peste des petits ruminants.

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## What to do when BTV is suspected

The attending veterinarian will complete an animal biosecurity field investigation questionnaire and take samples for laboratory testing and disease confirmation.

If clinical BTV is suspected, the owner or manager of the animals will be directed to not move livestock or livestock products (semen, embryos, wool) until further notice. Your LLS District Veterinarian will be able to provide further assistance.

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## What to do when BTV has been confirmed

Once BTV is confirmed, NSW DPI will advise next steps, including issuing an Individual Biosecurity Direction and further sampling for laboratory testing, if required.

### Advice to Owners

As a precaution, the movements of sheep from properties where BTV has been confirmed are restricted until the end of the vector season. Depending on your property location, this may coincide with the first frosts of the season or when NAMP testing for the season concludes and the *Culicoides* vector is no longer present. This is to ensure no sheep or sheep products leave the BTV transmission zone.

Some movements may still be allowed on a case-by-case basis as determined by NSW DPI. For example, cases where sheep go direct to slaughter or low-risk movements within the existing BTV zone may be allowed. Movement of sheep will be allowed after the end of the 2024 vector season when *Culicoides* midges are no longer active.

Your LLS District Vet or NSW DPI will work with you to protect your farm and the region's livestock industry. LLS and NSW DPI can work with your private veterinarian, if desired.

No ruminants or their products will be eligible for export from confirmed infected properties during the transmission period, including cattle, goats, sheep and wool, due to the requirements of importing countries.

There is no treatment for the virus. Supportive therapy may assist the animals during recovery. Please discuss this with your veterinarian. Protection from insect bites may be helpful but may not be practical. Separating sheep and cattle may assist in reducing midge attack on the sheep.

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## Communication and requests for information

If you receive a request for information from members of the public or other organisations, please refer them to NSW DPI: [animal.biosecurity@dpi.nsw.gov.au](mailto:animal.biosecurity@dpi.nsw.gov.au)

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## Useful links

National Arbovirus Monitoring Program (NAMP) Bluetongue Virus Zone Map – Animal Health Australia: <https://namp.animalhealthaustralia.com.au/public.php>

NSW Animal and Plant Health Laboratories (APHL) – Bluetongue: <https://www.dpi.nsw.gov.au/about-us/services/laboratory-services/veterinary/bluetongue>

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