

29 April 2024

CHIEF VETERINARY OFFICER BULLETIN

Bluetongue virus update in sheep within the NSW bluetongue transmission zone

Current situation

NSW Department of Primary Industries and the CSIRO Australian Centre for Disease Preparedness (ACDP) confirmed the presence of bluetongue virus (BTV) in samples from four sheep properties. The detection of the virus was confirmed by qPCR (quantitative polymerase chain reaction) at ACDP on 15 March 2024. As of 26 April 2024, BTV has been detected on 32 clinically affected sheep properties, all within the NSW BTV transmission zone

This detection does not change Australia's status for bluetongue virus, as reported to the World Organisation for Animal Health (WOAH).

Bluetongue transmission is seasonal and is dependent on the activity of the *Culicoides brevitarsis* midge. Affected farms are being monitored for the recovery of impacted livestock, which is expected to occur with the onset of winter and declining temperatures.

Tests confirmed the virus strains to be BTV-1 and BTV-16 across the 32 properties, all of which are within the NSW BTV transmission zone. BTV-1 and BTV-16 are known to occur within the BTV zone.

The Australian Bluetongue Virus Zone Map was updated on April 17, 2024, following the detection of evidence of bluetongue virus infection during routine monitoring activities in sentinel cattle in the South Coast and Southern Highlands regions of NSW. There is no evidence of clinical disease in these animals. To check if you or your clients are in the expanded BTV zone, please refer to the [BTV zone map website](#).

BTV cannot be spread from animals to humans. BTV does not present a food safety risk and all Australian lamb remains safe to eat.

Bluetongue virus clinical signs

BTV is spread by biting insect vectors, particularly *Culicoides* midges. All ruminant species are susceptible. However, bluetongue is primarily a disease of sheep. Infection in cattle, although of great epidemiological significance, is usually subclinical. The virulence of different strains of bluetongue varies significantly.

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

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

- variable, fluctuating fever
 - lethargy
 - hyperaemia of oral and nasal mucosae
 - excess salivation
 - nasal discharge
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- lips and tongue may become swollen and the oedema may extend over the face and intermandibular space
- respiratory signs including difficulty breathing and pneumonia
- haemorrhages may occur on oral and conjunctival mucosae,
- Ulcers develop on the gums, cheek and tongue five to eight days after the onset of fever
- feet lesions may appear towards the end of the febrile period with,
 - reddening and petechial haemorrhages on the coronary band
 - associated pain, which causes the animals to stand with arched backs and be reluctant to move.

BTV can mimic signs of internal parasitism, photosensitisation or respiratory disease.

NSW DPI held a bluetongue in sheep webinar on Wednesday 10 April where Dr Heidi Austin (North West Local Land Services District Vet) presented on recent BTV clinical cases. The presentation can be [seen here](#).

Reporting bluetongue

Bluetongue in sheep is a notifiable disease in NSW. If you suspect BTV, see signs of disease or death consistent with bluetongue in your flock, immediately contact the **Emergency Animal Disease Hotline, 1800 675 888** (24-hours a day) or your **Local Lands Services District Veterinarian, 1300 295 299**.

More information:

- National Arbovirus Monitoring Program (NAMP) [Bluetongue Virus Zone Map](#) – Animal Health Australia
 - [NSW DPI Bluetongue virus](#)
 - NSW Animal and Plant Health Laboratories (APHL) – [Bluetongue](#)
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