

Bluetongue Virus

Bluetongue is a notifiable viral disease affecting all ruminant species. Notifiable diseases are animal diseases that vets and animal keepers are legally obliged to report to the Animal and Plant Health Agency (APHA), even if you only suspect that an animal may be affected. They can be endemic (e.g. already present in the UK, such as bovine TB), or exotic (not normally present in the UK).

Cases of bluetongue have been rising in continental Europe and one serotype of the virus (BTV-3) has recently reached the UK in the South and East. The disease is transmitted via midges (*Culicoides* species) that bite an infected animal then carry the virus and spread it to uninfected animals. This is called 'vector-borne' transmission. It can also be spread by the movement of infected animals and animal products, such as blood and germinal products (semen, eggs, ova and embryos). This may be from overseas imports or from within Great Britain. Additionally infected pregnant animals may transmit the virus to their offspring.



Clinical signs of bluetongue in cattle include:

- lethargy
- crusty erosions around the nostrils and muzzle
- redness of the mouth, eyes, nose
- reddening of the skin above the hoof
- nasal discharge
- reddening and erosions on the teats
- fever
- milk drop
- not eating
- abortion, foetal deformities and stillbirths

Adult cattle may be infectious for several weeks and show little or no signs of disease.

Clinical signs of bluetongue in sheep include:

- ulcers or sores in the mouth and nose
- discharge from the eyes or nose and drooling from mouth
- swelling of the lips, tongue, head and neck and the coronary band (where the skin of the leg meets the horn of the foot)
- red skin as a result of blood collecting beneath the surface
- fever
- lameness
- breathing problems
- abortion, foetal deformities and stillbirths
- death

Sheep are more likely to show obvious clinical signs of bluetongue than cattle if they become infected with bluetongue virus.

A photo of a sheep with its mouth open showing a blue and swollen tongue.
Photo credit: The Pirbright Institute

Midge transmission can largely be affected by the time of year, i.e. whether during the active vector season (normally March-September), and meteorological conditions, i.e. temperature and wind direction. Additionally, the proximity and density of neighbouring farms are significant factors in the potential incursion and spread of this disease. It is however possible to move infected animals at any time of year. In severe cases, difficulty breathing can lead to a lack of oxygen supply causing the tongue of the infected animal to become blue, giving the virus its name. Clinical signs are often more severe in sheep and mortality rates are much higher. The disease is notifiable in the UK but poses no risk to humans or food safety, however outbreaks can result in prolonged animal movement and trade restrictions.

In areas of the UK where cases have been confirmed, movement restrictions have been put in place to prevent animals being moved out of the restriction zone into other parts of the UK. Due to the virus being transmitted by midges it is very difficult to control the spread.



What can I do to protect my stock?

You can help to prevent bluetongue virus from spreading by:

- responsibly sourcing livestock
- remaining vigilant to signs of disease
- housing animals in buildings that keep out biting midges – this is especially important at dawn and dusk
- maintaining good hygiene and biosecurity on your premises
- not allowing farm dogs, cats or pets to eat, chew on or play with potentially infected materials (such as aborted material and afterbirth)
- vaccinating your animals with a suitable authorised vaccine

There are many questions surrounding the use of insecticides to help control BTV-3. However, there is no evidence to suggest they are efficacious against Culicoides midges and there is no evidence that the use of insecticides on animals reduces bluetongue virus transmission in the field.

Whilst treating with insecticides may feel like ‘doing something’, there is no evidence that they will protect livestock from bluetongue and excessive use will cause considerable negative environmental and ecological impacts.

Three vaccines against BTV-3 have been given emergency approval in the UK. These vaccines will reduce the clinical signs but not prevent animals being infected or becoming infectious. Vaccinated animals will still be subject to movement restrictions. Please contact your vet to discuss vaccine availability.

Further resources:

Most recent information can be found at <https://www.gov.uk/government/collections/bluetongue-information-and-guidance-for-livestock-keepers>



There is an interactive map showing the locations of the control zones available at the following link: <https://www.arcgis.com/apps/webappviewer/index.html?id=514ec88edec74575958d860f0196d2ea>



Please be aware this is a constantly evolving situation, and any suspicion of disease should be reported to APHA on 0300 0200 301. If you have any questions please do not hesitate to contact us on 01889 567200.

Not so fun-gi

The increased rainfall throughout the UK in 2024 increases the risk of certain fungi growing on crops. These fungi can pose serious health risks to animals who are exposed to them. Mills will be thoroughly checking all harvested crops but those fed directly to animals on farms present an animal health risk.



Ergot

Ergot fungi develop in the ears of all cereals including wheat barley and oats, appearing as a hard black mass in place of the grain. Risk factors include wet weather and late cut silage. They produce alkaloids which are a deadly toxin.

Signs of ergot poisoning usually appear 2-6 weeks after the animal is exposed to the infected grain. The toxins cause constriction of the blood vessels which reduces blood flow around the body. This leads to necrosis of the extremities such as ear tips and tails. It also causes reduced blood supply to the legs which can cause lameness and eventually sloughing of the claws. In acute cases where there is high exposure to the toxin over a short space of time animals can experience damage the nervous system leading to seizures, poor coordination, weakness and death.

There is no treatment available for ergot poisoning. The source should be removed and supportive care should be provided to animals. Those with severe lesions should be euthanised.

Fusarium

Fusarium is seen in wheat, barley, oats and maize but maize and wheat grown after maize are the highest risk. It is seen as white heads on the ears of the plant while the rest of the plant is green and unripe.

Some species of fusarium can produce a mycotoxin called deoxynivalenol (DON), which has a varying level of effect on cattle, causing mainly reduced appetite, gastric irritation and reduced immunity increasing susceptibility to other disease. Pigs are seen as the worst affected species as DON is efficiently absorbed and slowly excreted in swine.

It is important to remember that animals under other stresses such as high production levels, overcrowding or disease will be more susceptible to DON and can have symptoms with much lower levels.

Guidance limits for DON in grains for animal feed can be found on the AHDB website, a link is provided below or you can scan the QR code

<https://ahdb.org.uk/knowledge-library/fusarium-and-microdochium-in-cereals>



Are you purr-fectly legal?

Since June 2024, it is compulsory for all cats to be microchipped, including those living indoors. The only exceptions are feral cats with little or no human interaction or dependency. Failure to comply with microchipping can lead to a fine of up to £500. Please contact us on 01889 567200 if you have a cat that needs microchipping.

