

# BLUETONGUE

## Artificial insemination and embryo transfer



**Advice for those providing or using ruminant or camelid genetic material within a bluetongue restricted zone**

## **Introduction**

Bluetongue is a midge-borne viral disease that can infect all ruminants, such as cattle, goat, deer and, in particular, sheep. The disease is different from many others in that it is not transmitted directly between animals; midges are generally required for disease spread and disease is only confirmed if the virus is circulating between ruminant hosts and the midge population. However, there is some evidence that bluetongue virus can also be transmitted in utero or via semen.

## **Disease impact**

Bluetongue can have significant economic impact in terms of on farm losses due to mortality and reduced productivity, and losses to export revenue as live exports are banned from affected areas.

The symptoms of bluetongue and its potentially high mortality rate represent a significant threat to livestock welfare. Infection rates tend to be greater in cattle, but symptoms and mortality are generally more severe in sheep. Mortality can be up to 70% in sheep dependent on the virus strain; the strain involved in the Northern European outbreak (BTV8) is relatively mild, but preliminary figures still suggest up to 30% mortality.

Bluetongue does not affect humans and there is no risk of the disease being contracted or spread through meat or milk.

## **Disease control**

The standard response to circulating bluetongue under current legislation is to restrict the movement of live animals and genetic material. This is achieved by declaring a restricted zone, comprising a protection zone of at least 100km around an infected holding and a surveillance zone at least 50km wider than the protection zone. The protection zone may include within it a 20km control zone around the infected holding. Within the entire 150km restricted zone restrictions on animals, semen, ova and embryo moving out of the zones are put in place.

## **How does this affect me?**

*What sources of genetic material can be used?*

Genetic material from donors outside the restricted zone is considered to have a low risk of transmitting bluetongue. Where donors are within the bluetongue restricted zone, they must be proven to be free of disease by being:

- Protected from vectors; or
- Regularly tested for bluetongue antibodies; or
- Regularly tested for bluetongue virus.

All movements of genetic material out of a restricted zone must be conducted under a general licence issued by the Scottish Government and are subject to certain strict conditions. Up to date details of all movements allowed under bluetongue restrictions,

and the licences and conditions attached to them, can be found on the Scottish Government website or obtained from your local Animal Health office.

*What should I do if I suspect disease?*

The clinical signs of bluetongue are outlined below – please ensure that you are familiar with these and inspect your livestock regularly. **If you suspect the presence of the disease, contact your local Animal Health office immediately.**

#### ***Clinical signs in sheep***

- Fever
- Swelling of the head and neck
- Inflammation and ulceration of the mucous membrane of the mouth, nose and eyelids
- Lameness
- Muscle degeneration and blood/serum leaking from blood vessels into surrounding tissue
- Haemorrhages in the skin and other tissues
- Respiratory signs such as froth in the lungs and an inability to swallow
- High mortality rate
- Discolouration and swelling of the tongue (rare)

#### ***Clinical signs in cattle***

- Nasal discharge
- Swelling and ulceration of the mouth
- Swollen teats

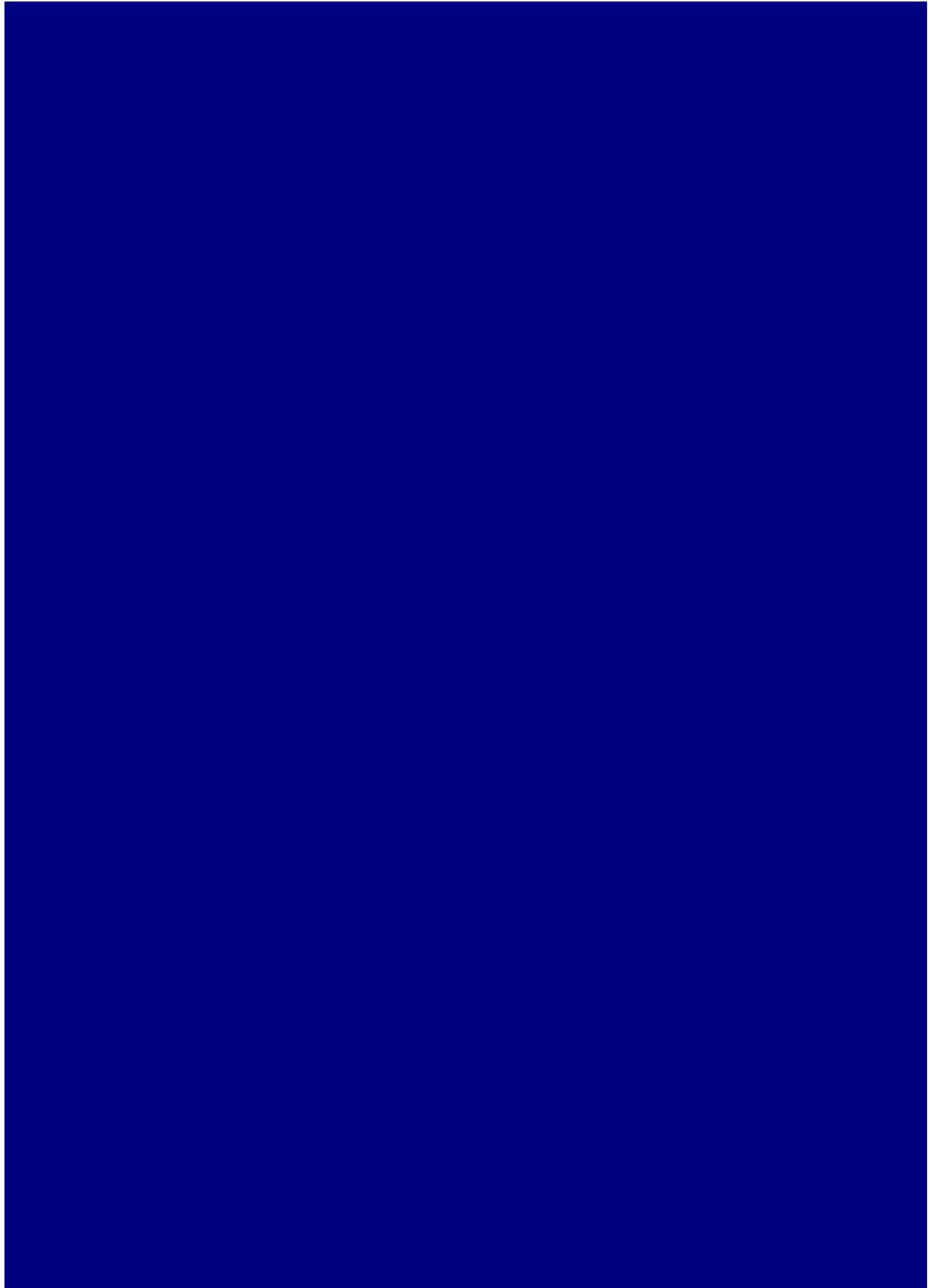
#### **Further information**

<http://www.scotland.gov.uk/bluetongue>

<http://www.defra.gov.uk/animalh/diseases/notifiable/bluetongue/index.htm>

#### **Local animal health offices**

<b>Office</b>	<b>Telephone</b>	<b>Nightline</b>	<b>Fax</b>	<b>Email</b>
Ayr	01292 291350	07000 780124	01292 291351	<a href="mailto:AH.Ayr@animalhealth.gsi.gov.uk">AH.Ayr@animalhealth.gsi.gov.uk</a>
Galashiels	01896 758806	01896 758806	01896 756803	<a href="mailto:AH.Galashiels@animalhealth.gsi.gov.uk">AH.Galashiels@animalhealth.gsi.gov.uk</a>
Inverness	01463 253098	07000 780126	01463 711495	<a href="mailto:AH.Inverness@animalhealth.gsi.gov.uk">AH.Inverness@animalhealth.gsi.gov.uk</a>
Inverurie	01467 626300	01467 626300	01467 626321	<a href="mailto:AH.Inverurie@animalhealth.gsi.gov.uk">AH.Inverurie@animalhealth.gsi.gov.uk</a>
Perth	01738 602211	01738 602211	01738 602240	<a href="mailto:AH.Perth@animalhealth.gsi.gov.uk">AH.Perth@animalhealth.gsi.gov.uk</a>



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