

## What should veterinary practitioners do?

Bluetongue is a **notifiable** disease. Any suspicions of the disease must be reported immediately to the local District Veterinary Office. Veterinary practitioners should, therefore, familiarise themselves with the clinical signs of the disease and be on the alert for abnormal behaviour or illness in cattle, sheep, goats and deer especially during warm weather. Clotted blood and EDTA blood samples should be taken from affected animals, and submitted to the Central Veterinary Research Laboratory at Backweston for testing. In the event of suspicion, ruminant animals must not be moved from the premises until blood sample results have ruled out the disease.

For further information, including further photographs of some of the clinical signs of the disease, please see the bluetongue page in the Animal Health and Welfare section of the Department's website at [www.agriculture.gov.ie](http://www.agriculture.gov.ie).



BTV infected sheep with profuse nasal discharge and swollen face.



BTV infected sheep with profuse nasal discharge and swollen face.



BTV infected sheep with coronitis.



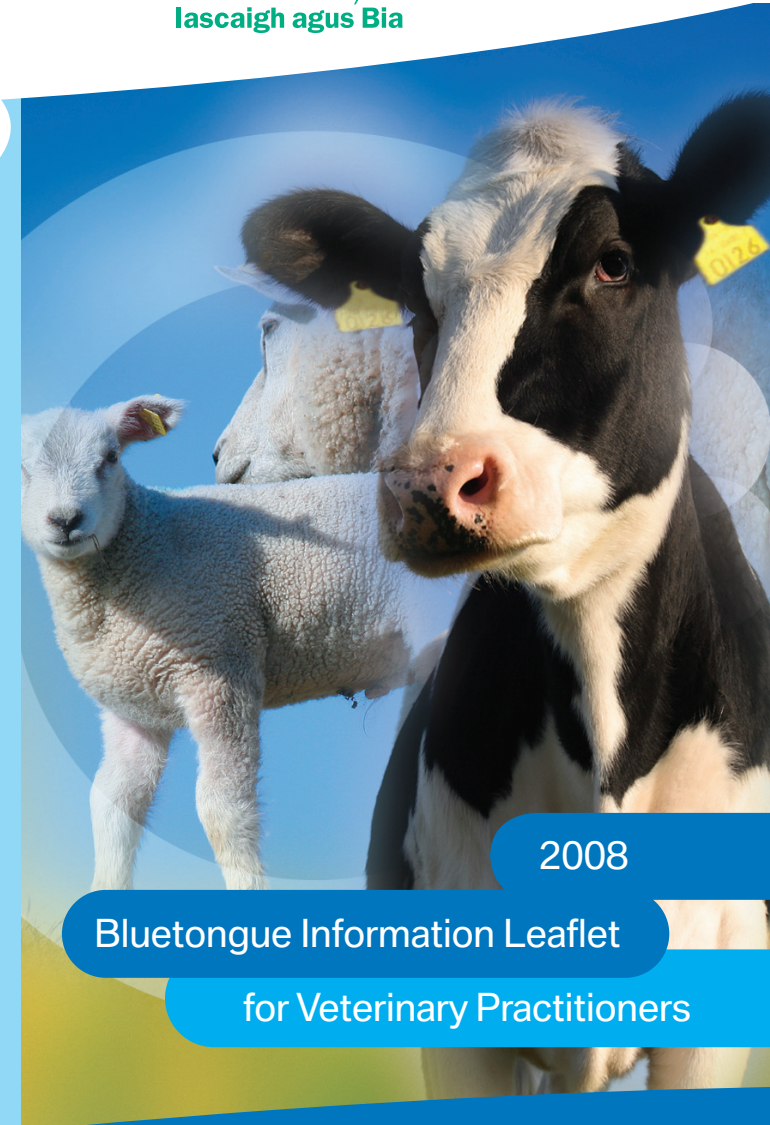
BTV infected cow with conjunctivitis and nasal discharge.



BTV infected cow with erosion of the nasal mucosa.



BTV infected cow with a swollen udder and crusting of the teats.



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Bluetongue Information Leaflet  
for Veterinary Practitioners

[www.agriculture.gov.ie](http://www.agriculture.gov.ie)

## Introduction

The purpose of this information leaflet is to increase awareness among veterinary practitioners about Bluetongue, which is a viral infection of most domestic and wild ruminants such as cattle, sheep, goats, deer etc., and, in particular to advise on the clinical signs of the disease. Bluetongue virus (BTV) does not infect humans and, consequently, the disease has no public health significance. There is no risk of the disease being contracted or spread through meat or milk.

Though Bluetongue has never been recorded in Ireland, recent events in northern Europe, notably Netherlands, Belgium, Luxembourg, Germany, France and Great Britain, mean that there is an increased threat of the disease being introduced to Ireland.

## Possible Routes of Introduction

There are three principal routes by which Bluetongue might be introduced to Ireland:

- ▶ Firstly by importing a viraemic animal. If this animal was bitten by certain *Culicoides* midges and the environmental conditions were favourable, the midge could transmit infection to other animals.
- ▶ The second route of introduction is less likely but could occur if infected midges were blown to Ireland from another country such as France or the UK. Again the environmental conditions would have to favour survival of the midges and allow transmission.
- ▶ The least likely route of introduction is through the importation of infected semen or other biological products.

## Incubation Period

The incubation period is between 4 and 20 days.

## Clinical Signs

Cattle are less likely to show signs of the disease than sheep. In northern Europe, many herds and flocks had only one or two animals affected. In affected cattle herds, the average morbidity was 5% and mortality was less than 1%. In sheep flocks, the average morbidity was 30%, and mortality was 8%. Disease was more severe in the second season than the first.

The most frequently observed clinical signs of bluetongue include some or all of the following:

### Cattle:

- ▶ Ulcers and crusts on the muzzle, nose and lips
- ▶ Ulcers of the buccal mucosa and tongue
- ▶ Drop in milk yield
- ▶ Excess salivation
- ▶ Ulcers and crusts on the teats
- ▶ Conjunctivitis and lacrimation
- ▶ Dry necrosis of the skin
- ▶ Lameness
- ▶ Weight loss

### Sheep:

- ▶ Ulcers and crusts on the muzzle, nose and lips
- ▶ Oedema of the head
- ▶ Ulcers of the buccal mucosa and tongue
- ▶ Excess salivation
- ▶ Lameness
- ▶ Ulcers and crusts on the teats
- ▶ Weight loss
- ▶ Anorexia
- ▶ Drop in milk yield
- ▶ Dullness

In acute cases, pulmonary oedema and frothing at the mouth and nostrils may be seen prior to death in 8 to 10 days. Chronic cases may die in 3 to 5 weeks with secondary bacterial infections or have a prolonged recovery. Mild cases may make a complete recovery.

### Differential Diagnosis

- ▶ Foot and mouth disease
- ▶ Contagious ecthyma (orf)
- ▶ Bovine Viral Diarrhoea
- ▶ Malignant Catarrhal Fever
- ▶ Infectious Bovine Rhinotracheitis
- ▶ Photosensitisation

## Transmission

The virus is mainly transmitted by vectors (biting midges of the *Culicoides* species), although transplacental transmission has also been recorded in cattle in the case of serotype 8. Those midges that spread infection are mainly active between April and November in Ireland and are commonly found around farms. Of the 16 most common midge species in Ireland, at least 8 are potential vectors for Bluetongue. As the presence of the disease depends on the presence of the vectors, the disease is usually seasonal - mainly appearing between July and November.

## Control Measures

EU and national legislation to deal with the control of Bluetongue include:

- ▶ Establishment of Control (20km), Protection (100km) and Surveillance (150km) Zones around the infected holding
- ▶ Movement restrictions within and from these zones
- ▶ Confinement of animals indoors at times when the vector is active
- ▶ Control / eradication of the vector by destruction of habitats and use of insecticides
- ▶ Slaughter of infected / suspected animals, only if necessary to prevent spread of the disease, with destruction of carcasses
- ▶ Vector monitoring (light traps)
- ▶ Vaccination

The movement of cattle or sheep would be controlled within and from the control zones, including the 150km surveillance zone, and exports of live animals would be subject to restrictions. Controls would be kept in place until there is no further risk of spread, but may be relaxed during the period when the insect vectors are not active (the vector free period).

