Update on Bluetongue in Europe (23rd May 2018)

Key points

- Bluetongue virus (BTV) is prevalent in Europe and is a threat to Irish ruminants.
- BTV serotype 8 has reached the north coast of France and the whole of France is a bluetongue restricted zone. BTV serotype 4 has also emerged in eastern France. Since 2015 France has had 3999 bluetongue outbreaks (up to May 13th 2018).
- The bluetongue vector season in Ireland is likely to be between late April and early December.
- Bluetongue may be introduced to Ireland via imported animals harbouring BTV, infected vectors (e.g. midges) or animal products (e.g. semen).
- Anyone importing ruminant animals from bluetongue affected countries should take particular care when sourcing their animals as this is the most likely route of introduction of the bluetongue virus into Ireland.
- Infected animals may not show any clinical signs and will only be detected through testing their blood for BTV.
- Even animals with bluetongue vaccination records may harbour BTV.
- If bluetongue is introduced to Ireland, it could have a major impact on our export markets. Also, the control measures required by the EU would have a significant impact on herd management.
Emergence of bluetongue in Europe

Bluetongue is a viral disease of ruminants (e.g. cattle, sheep, goats, deer) and is primarily transmitted by midges (Culicoides species). The bluetongue situation in the EU has changed in recent times with incursions of new serotypes. Between 2006 and 2010, BTV serotype 8 reached parts of north-western Europe that had never experienced bluetongue outbreaks previously. This epidemic reached the UK mainland, but not Ireland.

BTV serotypes 1, 2, 3, 4, 8 and 16 are present in parts of the Mediterranean Basin. Serotype 4 emerged in the Balkan region in 2014 and spread to northern Italy, Hungary, Slovenia and Slovakia. Serotype 8 has re-emerged across a large area of France since 2015. The emergence of BTV serotype 4 in eastern France was a new development in 2017, as was the incursion of BTV serotype 8 into Switzerland.

Please see the video link below that shows how bluetongue has spread in Europe between 2006 and 2016:

[https://ec.europa.eu/food/sites/food/files/animals/docs/ad_control-measures_bt_outbreaks_video_en.mp4](https://ec.europa.eu/food/sites/food/files/animals/docs/ad_control-measures_bt_outbreaks_video_en.mp4)

Map 1 in the annex shows current bluetongue restricted areas in Europe. Tables 1 and 2 in the annex summarise bluetongue outbreak numbers in European countries in 2017 and to date in 2018.

Current situation with bluetongue in France

France reported the re-emergence of BTV8 in sheep and cattle at a holding in Central France in September 2015. Since then, BTV serotype 8 has caused outbreaks in many parts of the country and all of France is now a bluetongue restricted zone. BTV serotype 4 emerged in eastern France in 2017 with further cases this year. There have been 143, 1294 and 1926 BT outbreaks reported in France in 2015, 2016 and 2017 respectively, and 636 outbreaks reported already this year (up to May 13th 2018). Map 2 in the annex shows bluetongue restricted areas in France.

Clinical signs and detection of bluetongue

Since 2015, there have been few clinical signs reported in association with Bluetongue outbreaks in France. An imported animal may be harbouring BTV with no clinical signs, with virus detection from the blood being the only means of diagnosis. Even bluetongue vaccinated animals may harbour BTV in some circumstances.

It is difficult to predict the level of clinical signs that bluetongue would cause if it circulated in naive Irish ruminant populations. In previous outbreaks in northern Europe (2006-2010), BTV-8 was most commonly associated with clinical disease in sheep but also occasionally in cattle. Bluetongue can cause a variety of clinical consequences, from no signs at all, to quite severe signs including a swollen face, drooling and frothing, red eyes and excess tears, lameness, weight loss, abortion, reduced fertility, malformed offspring, udder lesions, a drop in milk yield and animals off their feed. Please see the bluetongue information leaflet for photographs of clinical signs:
Bluetongue has the potential to have considerable economic impact due to trade restrictions which need to be put in place, the cost of a potential vaccination programme, and the potential for reduced milk yield and fertility.

Managing the risk of bluetongue introduction to Ireland

Farmers, practitioners and other relevant stakeholders should be vigilant and ensure that they are fully aware of the presenting clinical signs of bluetongue in both cattle and sheep, and that they report any suspicion of disease to their Regional Veterinary Office (RVO) without delay. Contact details for RVOs can be found at:

http://www.agriculture.gov.ie/contact/

Particular care should be taken when importing ruminants from bluetongue affected countries as this is the most likely route of introduction of the BTV into Ireland. Although specific EU certification requirements apply to the movement of animals originating from bluetongue restricted zones there is evidence that these requirements are not always properly implemented. In addition, infection with certain serotypes (such as BTV8) may not always produce clinical signs and therefore the risk of infected animals remaining undetected pre and post importation is heightened.

For these reasons the following risk mitigation measures should be seriously considered by farmers when importing ruminant animals:

- Do not import ruminant animals from bluetongue restricted areas unless absolutely necessary.
- Only import animals from reputable sources.
- Do not buy or accept animals which have been recently imported without carefully checking their origin.
- Seek additional assurances to ensure that animals are not infected with BTV prior to departure, such as a recent negative PCR test for bluetongue carried out in an accredited laboratory.
- Post importation, keep any imported animals isolated and indoors until they have been tested for BTV by staff from this Department and have returned a negative test result (see below).

DAFM control measures

DAFM implements various measures to prevent a BT incursion and to ensure early detection in the event of disease being introduced into Ireland including:

- All animals imported from or transiting through countries restricted for bluetongue are blood tested for bluetongue virus and antibody, within 7 days of arrival in Ireland.
Ongoing surveillance for bluetongue in the Irish cattle population.
Close monitoring the situation in affected EU countries.
Implementation of an ongoing awareness campaign for stakeholder groups.
An early warning system for Culicoides midge incursions from the UK or France implemented in collaboration with Met Éireann.

Implications for intra-community movements of cattle, sheep and goats

Specific EU certification requirements apply to the movement of animals originating from bluetongue restricted zones including animals for export. These requirements are set out in the EU Regulation 1266 of 2007 and would apply in the event of a bluetongue outbreak in Ireland.

The following link is to the detailed regulation:


There are also additional requirements for animals that are transiting or destined for bluetongue restricted zones. In this case the means of transport must be treated with an authorised insecticide and/or repellent at the place of loading. The transport must be adequately cleansed and disinfected prior to this treatment. However animals do not need to be individually treated.

In addition when a rest period of more than one day is foreseen at a control post during the movement through a restricted zone, the animals must be protected against attacks by vectors in a vector protected establishment. This vector protected establishment must comply with certain criteria including mesh screens over openings etc. These vector protected establishments must also be approved by the competent authority.

Vaccination against bluetongue

Vaccines against a number of BTV serotypes exist. However the option to vaccinate for bluetongue is not available to farmers in Ireland at the moment. This situation is kept under constant review.

In Great Britain BTV-8 vaccine has been available since mid-July 2016 and the authorities there have encouraged farmers to consider vaccination against BTV. However the final decision to vaccinate is left to the farmer, in consultation with their private veterinary practitioner.
Annex

Map 1: Bluetongue restricted zones in Europe as of the 18th of April 2018. For updated maps please see:

https://ec.europa.eu/food/sites/food/files/animals/docs/ad_control-measures_bt_restrictedzones-map.jpg

For a table listing bluetongue restricted zones please see:

Map 2: Bluetongue restricted areas and the infected, protection and surveillance zones for Bluetongue serotype 4 in France as of the 17th of November 2017. For updated maps please see:

Table 1: Bluetongue outbreaks reported between 1\textsuperscript{st} of January and 13\textsuperscript{th} of May 2018. For an updated table please see:


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<th>Country</th>
<th>Date of last outbreak</th>
<th>N outbreaks</th>
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<tr>
<td>FRANCE</td>
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<td>GREECE</td>
<td>07/05/2018</td>
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<td>ITALY</td>
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<td>Total</td>
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Table 2: Bluetongue outbreaks reported to the European Commission in 2017

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<td>SPAIN</td>
<td>04/12/2017</td>
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<td>SWITZERLAND</td>
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</tr>
<tr>
<td>TURKEY</td>
<td>08/12/2017</td>
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<tr>
<td>Total</td>
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