

What is Bluetongue?

Bluetongue is a viral disease affecting ruminants and camelids as well as deer. It is fatal in about 25% of sheep and 5% of cattle, but is severely debilitating with a protracted recovery period if animals do survive. Different serotypes vary in how severe the disease is and unfortunately serotype 8 is particularly virulent. If Bluetongue is present in an animal population for many years the level of disease does fall as there is some natural immunity although this is not thought to be lifelong. As well as obvious signs, the disease can cause milk drop, infertility and abortion.

Can I catch it?

No – Bluetongue does not have any effect on humans

What are serotypes?

Bluetongue virus exists in different strains known as serotypes. This is like you wearing a different coat each day, which makes you appear different from the outside although you are the same on the inside. This is the reason why immunity to one serotype is of no benefit when fighting a different serotype. The serotype we have in the UK is 8, although we may get serotype 1 before much longer as it is present in Northern France.

What is a vector?

Bluetongue needs a vector to be transmitted from animal to animal, it cannot pass directly. The vector sucks the blood of an infected animal and then carries the virus to another animal. The virus needs to be in the vector for a certain time before it can be passed on. The vector for Bluetongue is *Culicoides obsoletus* in the UK, which is a type of midge.

Tell me more about Culicoides

Culicoides obsoletus is very small midge (wingspan of only 2mm) and knowledge of midge lifecycles is poor. Funnily enough getting a research grant for midges was deemed a waste of money until recently! There are at least 48 midge types in the UK and it is not known which of these are capable of transmitting Bluetongue. A different midge is responsible for transmission of Bluetongue in Europe. It only takes one infected midge to bite an animal once to pass on the virus.

Where did it come from?

We really don't know! Bluetongue has been spreading north through Europe for years but serotype 8 was not present in Europe at all. It has been suggested that serotype 8 arrived via an infected midge carried on cut flowers from Africa into Belgium. It spread to the UK on the 4/5th August 2007 when a humid southerly wind carried midges over the channel but has not been present since then. It is however spreading north through France again and is expected to arrive in the UK later this summer.

What will happen to my animals?

As temperatures rise in the spring the midges become active and will carry the disease from any undiagnosed virus carrying animals in the UK, or by being blown over from the continent again. Last summer was very unusual in having very few days with a southerly wind - we may not be so lucky this year. There is also the possibility that the virus may overwinter in midge larvae in the UK (it has happened in Europe). When infected there is an incubation period of 2 to 60 days before clinical signs develop. Not all animals become ill making detection a problem, particularly in cattle. The clinical signs may be confused with Foot and Mouth or Photosensitisation, with swollen faces, udders, feet and tongue. A blue tongue is very rarely seen.

What treatment can I use?

Not a lot really. There are no antiviral drugs, although antibiotics may help prevent secondary infections. The condition causes extreme pain and so pain relief would help. Recovery is very slow (up to 6 weeks) and by that time the animal may be an economic dead loss. Housing may help as sunlight seems to exaggerate the clinical signs. The clinical signs are distressing both to the animal and the owner.

Can I stop the Vector?

Very unlikely. Fly treatments have limited value against midges in sheep, but are a little better in cattle. Spot-On and Swish both have some benefit in cattle. Housing has been suggested, but netting and other barriers are useless as the midge is so small. There are requirements for insecticidal

treatments for animals and vehicles when being transported between zones.

What is the vector free period?

This is when transmission by the vector is very unlikely (although not impossible). Midge numbers are low in the winter and their lifecycle is very slow in low temperatures. Additionally the virus needs time in the vector to develop into an infectious state – this does not occur below 15 degrees centigrade.

How can I protect my animals?

The only effective protection you can provide is vaccination. Fly control will help reduce the risk of vectors but will not be enough on its own. Buying in stock is a risk unless they are vaccinated or blood tested before they reach your holding. Vaccines will be available very soon from two companies but as demand is likely to be very high we cannot guarantee which one we will have available at any one time. The vaccination course is 1 dose followed by another 3 weeks later. Immunity is not complete for another month after this so it is important to vaccinate as soon as you can so that protection is ready before the virus arrives. The starting age varies slightly between the two vaccines so make sure you read the data sheet. Different pack sizes are available. Use in other species than cattle and sheep is allowed under the prescribing cascade but consult the surgery for further advice.

How much does vaccination cost?

We do not have that information at present but it is likely to be around £1 per dose.

What are Restriction zones?

If BTv8 is confirmed in the UK Restriction zones will be imposed of 150km diameter around any cases. This is because spread by midges can be rapid over long distances. If you are within a restriction zone then you will not be able to move animals out of that zone unless they are vaccinated. This may be a significant problem if the edge of the zone is near to us meaning you might not be able to move animals even quite short distances. As immunity takes almost 2 months the reason for vaccinating now is clear. APHA is testing bulk milk samples so the first you may hear about it is when they tell you there is a positive case in your herd.

Can I still export my animals?

Yes and no! Because it is a Europe wide problem animal movements are allowed (as they are in the UK) but may require blood testing prior to movement. Any Bluetongue restriction zones within the UK will be considered contiguous with those in Northern Europe and so transport into Europe may be possible in certain circumstances. This is a rapidly changing situation and the [DEFRA](#) website is the best source of information.

Can I import animals?

Yes and no for the same reasons as exports. We would advise that animals imported from Europe are blood tested for Bluetongue even if it is not a requirement (eg SZ to SZ). Additionally not all vector free periods end at the same time in all countries.

How serious is the problem?

VERY – experience in Belgium, Holland, Germany, France and Spain show that Bluetongue can ruin a farming business. It is estimated that 15% of the national sheep flock in Belgium died from Bluetongue related illness last summer.

What should I do if I suspect Bluetongue?

Contact the surgery or DEFRA directly. Bluetongue is a notifiable disease which must be notified to DEFRA but in many cases early on you may be uncertain of what you are seeing. If in any doubt ask for advice.

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