

Bluetongue

Just one topic in this month's newsletter - Bluetongue. As many of you will have noticed there have been a lot of developments just over the Channel in recent weeks (even without the political ones) as BTV8 continues to spread through France. The restriction zone is creeping north and will reach the coast very soon. It then becomes a matter of time before it hops over to the UK and potentially spreads here as well.

Below are some items from an information sheet on our website and we have recently been notified that two companies are just about to release a BTV8 vaccine. As during the last outbreak the vaccine price is being kept as low as possible and is likely to be around £1 per dose with 2 doses required 3 weeks apart.

IMPORTANT - make sure you read the section below on restrictions if / when BTV8 arrives in the UK as this will make vaccination very important for trade reasons. Because the restriction zones are so large (150km diameter) it is possible that as soon as a case is confirmed within the south of the UK then we will immediately be under restriction. If your animals are already vaccinated you will be able to move your animals, if they are not you will only be able to move them within the restriction zone. This will be a rapidly changing situation but pre-planning now could give you a significant commercial advantage.

Vaccine will be available in about 2 weeks time and demand is likely to be high and supplies short, so if you want to pre-order please contact the surgery NOW.



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 are likely to get in the UK is 8, which is the same as the previous outbreak a few years ago.

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.

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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 which can then be 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 if it arrives here (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 established 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 and Surveillance 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 or vaccination 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 will be 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 start and 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 in 2007.

What should I do if I suspect Bluetongue?

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